INDIA
PROPOSED STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
(PUNJAB)
INTERNATIONAL DEVELOPMENT ASSOCIATION

AIDE-MEMOIRE (JULY 1995)

1. An International Development Association (IDA) team consisting of Messrs./Mme. T. Nawaz (mission leader), S. Rao-Seshadri, K. Hinchliffe and D. Porter visited Punjab between July 24-26, 1995 to review preparation and pre-appraise the proposal for the Health Systems Development Project II in Punjab. The mission would like to express its gratitude to the Chief Minister of Punjab, Mr. S. Beant Singh, and the Health Minister of Punjab, Mr. H.S. Brar, for meeting the team to discuss key issues regarding the project. The mission also met with Mr. A.S. Pooni, Chief Secretary, Mr. R. Kashyap, Principal Secretary Finance, Mrs P. Khetrapal Singh, Secretary Finance and Accounts, and Mr A. K. Dubey, Secretary Planning, Government of Punjab. The mission would like to thank Mr G.P.S. Sahi, Principal Secretary Health and Family Welfare Department and his colleagues for their cooperation and hospitality. A review meeting on the issues covered by this aide memoire was held with Mr Sahi and his staff on July 26, 1995 in Chandigarh.

2. This aide-memoire records the overall progress made in the preparation of the proposed project, summarizes the main findings and recommendations of the pre-appraisal mission, and the understandings reached with the Government of Punjab on a proposed plan to appraise the project in October 1995.

PROJECT OBJECTIVES AND COMPONENTS

3. Objectives: The Government and the Bank reconfirmed that the main objectives of the project would be to: (i) improve efficiency in the allocation of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level. The achievement of these objectives would contribute to improving the health status of the people of Punjab, especially the poor and the underserved, by reducing mortality, morbidity and disability.

4. Components: It was reaffirmed that the project would have the following major areas of investment: (i) Management Development and Institutional Strengthening including (a) improving the institutional framework for policy development; (b) strengthening the management and implementation capacity of institutions including structures, procedures, management information systems, culture of service delivery, resources and training; (c) developing surveillance capacity for the major communicable diseases; and (ii) Improving Service Quality, Access and Effectiveness by: (a) extending/renovating community, area and district hospitals; (b) upgrading their clinical effectiveness; and (c) improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels.

POLICY FRAMEWORK

5. The discussions between the Government and the Bank on key policy issues continued to progress satisfactorily. The Government reiterated its commitment to implement a policy package of health sector reforms that will include key sectoral development issues for the primary and secondary levels of health care. These include the need to: (i) increase budgetary allocations to the health sector; (ii) allocate most of the incremental funds for the health sector to the primary and secondary levels of care; (iii) safeguard the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential medical materials and maintenance of equipment and infrastructure; (iv) set up a Strategic Planning Cell under the Health Secretary to undertake analyses of health sector issues; (v) contract out selected services, especially supporting services; (vi) enhance linkages in health care delivery with the private and voluntary sectors; and (vii) implement service improvements and user charges. A draft letter of Health Sector Development Policy prepared by the Government and addressing the important policy issues noted above was discussed with the Health Secretary and his colleagues. The Chief Minister and other senior members of the Punjab Government, including the Health Minister and the Principal Secretary Finance, stated that the Government was committed to undertaking specific actions on some key issues contained in the draft letter. This letter will be finalized by the time of the appraisal mission.

6. User Charges. It was agreed that user fees for diagnostic and treatment services would be more widely implemented and further enhanced as rehabilitated facilities are phased in. It was agreed that the 1994 Government Order giving notification of a new schedule of charges, which is still pending, would be issued with a change to exempt the population below the poverty line from the OPD registration fee. Practical methods of identifying and targeting the poor for exemptions were explored in detail. The mission agreed with the Government's proposal to use its existing system for identifying and targeting the poor for free service on the basis of being eligible to hold a yellow card. The Government reconfirmed that the funds collected through user charges would be retained at the point of collection. It was agreed that user fees would only be used for non-salary recurrent cost purposes.

7. Linkages with the Private and Voluntary Sectors. It was agreed that the Government will contract out services to the private sector, such as laundry, cleaning services, and catering wherever feasible. During the mission, the prospects for recruiting suitable NGOs were discussed. It was agreed that the Government would work collaboratively with both the private and voluntary sectors in general and, where necessary, contract out the delivery of health care to the voluntary sector which has a comparative advantage in improving access to health services for disadvantaged groups in remote areas.

8. Gender Issues and Reproductive Health. It was agreed that the proposed project would include an IEC component to sensitize the public to the "life-cycle" approach to women's health. The Government will continue elaborating their ideas on activities bearing on women's health, beyond those included in the IEC component, for inclusion in the project.

PROJECT PREPARATION PROGRESS AND RECOMMENDATIONS

9. Overall Progress. Progress with regard to project preparation activities since the last mission has been quite satisfactory. The revisions made in the project proposal reflect most of the points raised in the aide-memoire of the last mission. As noted in the last aide-memoire (June, 1995), the revised proposal has targeted project investments on the Upper Bari Doab area where the percentage of population below the poverty line, at about 40%, is much higher than the state average. However, three important areas of concern remain: (i) the number of staff quarters proposed is disproportionately high; (ii) the survey of facilities has not been initiated, although satisfactory progress has been made in collecting information on the current equipment inventory; and (iii) the Government's proposal to set up a corporation to manage and implement the project could unduly delay project development. This is expected to require commitment and immediate action at the highest level of the Government. The Government and the mission agreed that these issues would need to be given top priority for the project to be appraised in October. Details on these aspects are provided below in the relevant paragraphs.

10. Project Administration and Management. To facilitate health care delivery at the first referral level, the highest levels of Punjab Government expressed to the mission their eagerness to implement and manage the proposed project through the establishment of a corporate set-up, much like the approach followed in Andhra Pradesh. The mission pointed out the risks of opting for this approach since any delay in establishing a project management structure would delay project processing at this late stage and undermine the good progress achieved in other aspects of project development. The Government informed the mission that work on setting up a corporate structure had already been initiated and the Chief Minister, the Health Minister and the Chief Secretary stated that the Government would have established a corporation and worked out all the details of its functioning, including the legal and administrative implications, prior to the appraisal mission planned in October.

11. Site Survey and Preparation of Physical Works. It was agreed during the last mission that the Government would undertake an extensive survey of all health facilities at the secondary level similar to the work being done by Karnataka and West Bengal. The last mission agreed to arrange grant funds to cover part of the costs of conducting site surveys and evaluating the existing inventory of equipment at facilities that it is proposed to include within the scope of the project. The Government and the mission agreed that this work needed to be undertaken expeditiously. However, progress got delayed since the last mission both because the Health Secretary had been changed and the consulting firm, with whom discussions had progressed on the works, reneged on the terms of the contract at the last moment. The new Health Secretary has taken up the site survey as a matter of urgency and informed the mission that most of the of the facilities would have been surveyed by October. The mission agreed that given high priority, the survey could be completed in two months in Punjab.

12. Service Norms. A project preparation workshop involving key stakeholders in project design and organized by the Department of Health and Family Welfare in late April, 1995 defined the roles and functions of the various types of health facilities and referral hospitals. The findings of the workshop have been issued by the Department of

Health and Family Welfare and were used for revising the project. The mission reviewed these norms in detail and agreed with the Government with regard to some modifications.

13. Analysis of Equipment Inventories. A postal survey has been undertaken to determine the state of current inventories of equipment at project facilities. This entailed staff at each facility completing a proforma questionnaire in which they recorded most of the relevant data. The postal survey questionnaire did not included any request for information on service activity data, and this matter now needs to be followed up by the project preparation team. The previous mission had understood that the Government had already strengthened the project preparation team by appointing a technical adviser with expertise in management and maintenance of hospital equipment to take responsibility for analyzing and verifying the equipment inventory returns. In fact, this has not happened and the work is presently being done by a non-technical officer from the Department of Health. The mission believes it would be more effective to hire a technical expert as originally proposed to establish what necessary maintenance or repair work on existing equipment and what technical specifications and volume of new equipment are needed at each facility to bring the inventories up to agreed norms.

14. Equipment Maintenance and Management. The Department of Health has elaborated an action plan and the specific mechanisms to ensure state-wide coverage not only of project investments but all current equipment and plant used by its health services. The technical adviser recruited, along with the facility survey team(s), would contribute by assessing local capabilities to provide technical support for hospital equipment including the possible role of private contractors. Further analysis of the maintenance and repair coverage plan and of the detailed proposals for in-house manpower and workshop facilities should be undertaken by this technical adviser for discussion with the appraisal mission.

15. Referral System. The project proposal has laid out a good plan for strengthening the referral mechanism between the different tiers of the health system. The plan was reviewed, including the proposed incentives to encourage patients to use the referral mechanism. Details regarding the issuing of administrative guidelines are being developed and will be reviewed at appraisal.

16. Clinical Skill, and Management and Other Special Training. A training plan for strengthening clinical skills has been developed by the Government. The mission reviewed this plan and found it satisfactory; some minor additions were suggested. It was clarified that some of the training would be coordinated by the district hospitals, where facilities will be enhanced for this purpose. Training in management and other technical skills has been discussed with the Government covering personnel policies, finance issues, procurement policies, information systems, asset management and maintenance, IEC, HMIS, and surveillance systems. The Government has identified institutions where such training will be conducted.

17. Management Information Systems (MIS). The MIS included in the project proposal was reviewed and was considered appropriate. The mission suggested that details regarding the computerization of the systems needs to be further developed.

18. Plan for Developing Surveillance Capacity for Major Communicable and Non-Communicable Diseases. A development plan for a state-wide system for major communicable and non-communicable disease surveillance has been drafted and discussed with the mission. Based on the burden of disease in the state, a number of major communicable and non-communicable diseases have been identified by the Government. These diseases will be brought under the surveillance system and channels have been defined through which information will flow. Parallel efforts will be made to improve reporting by private medical practitioners. The surveillance system will be linked to HMIS. A link with the Strategic Planning Cell needs to be established; community participation in the surveillance network has been proposed and needs to be further explicated. These issues will be discussed with the appraisal mission.

19. Information, Education and Communication (IEC). The IEC proposal was discussed with the mission. The IEC component has been formulated to focus on the need to raise public awareness of preventive measures. It will now need to be fleshed out, taking into account the findings of the beneficiary assessment study. Opportunities for contracting out some of the IEC activities will be reviewed.

20. Detailed Project Costing. Project costs have been reviewed and need further revision incorporating the changes discussed with the mission. The main changes are with respect to civil works component, especially the construction of staff quarters. The mission was of the opinion that the number of staff quarters proposed under the project was disproportionately high. It was agreed that the Government would make substantial reductions in this area. It was also agreed that the detailed revised cost tables will be provided to the mission by August 20, 1995. After revision, preliminary total project costs, including contingencies, are expected to be approximately Rs. 400 crores or about US$100 million. Recurrent costs are expected to be about Rs.25 crores at project completion. The Principal Secretary, Finance has informed the mission that the Government will have no problem in bearing this additional recurrent cost burden.

21. Drug List. The Government provided a drug list to the mission, which is being reviewed. The mission suggested that the technical specifications of the elements common with the Andhra Pradesh drug list be incorporated by Punjab since the Andhra Pradesh list had already been cleared by the Bank.

22. Plan for Disposal of Medical Waste. The proposal for the disposal of medical waste has been reviewed by the mission. It has been clarified that the plan for medical waste disposal should include all hospitals, including tertiary hospitals not included in the project. Staff at facility level who will carry out the disposal function need to be identified from among the existing personnel. Training modules will need to be developed for staff at different health facilities responsible for medical waste disposal. Arrangements for the temporary storage of waste prior to disposal need to be developed and the technical specifications of incinerators, including capacity, at various facilities need to be modified.

23. Beneficiary/Social Assessment and Private Sector Studies. The Beneficiary/Social Assessment and Private Sector Studies are progressing well and a preliminary draft of phases I and II have been given to the mission for review and comment. The mission is

pleased to note the very good work being done by the Foundation for Research and Development of Underprivileged Groups in collaboration with the Government.

24. Performance Indicators. A list of performance indicators was discussed and agreed upon. The Government will further refine this list, to be reviewed with the appraisal mission.

25. Implementation Schedule and Procurement Plan. An implementation schedule has been prepared and reviewed by the mission. The phasing of the hardware and software components needs to be worked out more explicitly. The Government has agreed to provide these by August 20, 1995. Procurement plans are being developed and will be discussed with the Bank prior to the appraisal mission.

26. Land acquisition. Because the proposed project involves renovation and extension of existing facilities, it is anticipated that the need for land acquisition will be minimal. The Government has provided assurance that none of the sites where hospitals are to be upgraded will entail involuntary resettlement of any persons.

27. Next Steps. An appraisal mission could be scheduled in October, 1995. By that time, the Government will need to have completed a substantial portion of the site survey and put in place a viable structure to manage and implement the proposed project. The Government has made good progress with regard to other aspects of the project. It is expected that the recommendations of the mission concerning the remaining activities will be completed by the end of September.

August, 1995

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INTRODUCTION

This summary paper has been prepared to supplement the annual sectoral work plans of UNICEF and the Government of Karnataka. It is hoped that this will provide an overview of the areas that UNICEF, with its partners shall focus attention in 2001. Program details can be found in the individual sector plans that have been submitted by Unicef to the Department of Women's Development and Child Welfare.

It is hoped that during the workplan review meeting scheduled for 24 November, that the following can be achieved:

- General agreement on the GoK/Unicef workplan for 2001;
- Identification of program priorities for January to December 2001;
- Identification of program review and monitoring activities to be undertaken; and
- Identify roles and processes regarding undertaking of the mid-term review, Situation Analysis of Women and Children in Karnataka State and preparation/advocacy regarding the Special Summit for Children.

Karnataka: A Developmental Overview

With a population of 44.8 million, Karnataka is the eighth largest state in India. Its large SC/ST population constitutes 22 percent of the total population. Karnataka has a child population of 25.5 percent (aged between 0 and 14). Positive trends have included the decline in infant mortality rate from 81 per 1,000 live births in 1981 to 53 in 1997, a decline in child marriage and increase in age at marriage from 16.1 in 1961 to 20.1 in 1991. There has been a rapid increase in expansion in the primary education network along with programs to increase literacy. Areas of concern include the 976,000 working children between the ages of 5 and 14, the decline in the sex ratio at 960 and age-specific deaths that are higher for female children. Over 50 percent of pregnant women are anaemic, leading to higher maternal deaths. Levels of malnutrition are high for severe malnutrition and 35 percent for moderate malnutrition. Peri-natal deaths have increased from 43.2 in 1981 to 47.8 in 1994. The maternal mortality rate continues to be high at 450 and life expectancy is 62.5 years. Under-five mortality is nine percent. Fifty-three infants die for every 1,000 births. HIV/AIDS is emerging as a challenge that requires attention.

While the state is relatively developed, there exist sharp regional differences within the state. The northern Karnataka has significantly lower developmental indicators than more developed parts of the states. There have been calls for Unicef to focus assistance in the border districts that have the weakest child development indicators.

GOALS OF THE UNICEF PROGRAMME OF COOPERATION IN 2001

UNICEF aims to promote comprehensive and holistic survival, growth and development of children in the state of Karnataka. Integrated interventions in 2001 will aim for child survival through improved new-born care, and foster development, protection and early stimulation of children in the vulnerable 0-3years. It will also support enjoyable and quality education programs at pre-school and primary levels. Extending access to clean water and a sanitary environment and protection from child labour will be other areas of focus. Improved

nutritional status for proper growth and development and better childcare practices will also receive attention in 2001.

Budget and programme Highlights

The following table summarises the present budget allocations for the state for each sector in 2001 as well as highlights the major areas of program focus. This budget has been set by Unicef/Delhi and can not be changed without approval from Unicef/Delhi. Unicef/Hyderabad has already submitted a request for a higher budget but this will not be considered until the start of the new year. GoK program priorities should be fit within the following budget and any budget additionality will be used support other programs identified for the year. Unicef/Hyderabad is actively seeking supplemental funding that would enhance program delivery in co-ordination with the Government of Karnataka for 2001. Details of activity heads of expenditure are supplied in the individual work plans.

Sector	Allocated Budget	Program highlights
Community Convergent Action	$:59,400 Rs: 27 lakh	Promote integrated programming in identified districts, including: Mysore, Chitradurga, Gulbarga, Raichur with a focus on community-based development and monitoring. Explore potential to link IT with CCA programming. Ensure that VDCs are equipped with skills and back-up support for fulfilment of children's rights.
Health	$:163,000 Rs: 73 lakh	Health interventions will concentrate on implementing **the sub centre strategy in the border districts** of Bidar, Richur, Gulberga and Bijapur. The strategy will focus on developing community H&N teams, facilitating a package of interventions including new born care, IMCI and maternal care as well as capacity building of sub centre through drug supply and training of staff. Other interventions will include sustaining and strengthening of **maternal and child protection services** including immunisation, Vitamin A supplementation and health counselling.
Child Development and Nutrition	$: 157,700 Rs: 71 lakh	Child development initiatives for the 0-3 years will include initiating the family held card as a tool for empowering family and community level monitoring of health nutrition and developmental status of children. Initiatives for 3-6 years will concentrate on **quality improvement of pre school education** in the ICDS
Water and Environmental Sanitation	$: 500,000 Rs: 2.2 crore	Major interventions being prioritised includes **scaling up of support for school sanitation** to 4 districts of Mysore, Tumkur, Chitradurga and Raichur. Support will also be extended to sector reform interventions being implemented in 3 districts and human resource development training.
Education	$:450,000 Rs:2.025 crore	The major education intervention will continue to be the ***janshala* program** funded by the Jt. UN systems which focuses on quality improvement in primary grades, and community participation in education. Implemented in 10 blocks over 6 districts. In addition to this special pilot IT initiatives in education will be explored.
Child Protection	$: 35,900 Rs. 16 lakh	During the year, will focus on sericulture and bonded labour; Promote interstate collaboration between AP and Karnataka will ensue, thus tackling child labour in synergistic manner and serve as a model for other interstate collaboration. Will help ensure that there is a common approach to training on issues pertaining to child protection.; Support HIV/AIDS prevention activities.
Communications	$28,500 Rs. 13 lakh	Focus on preparing the ***Situation Analysis of Women and Children***, dissemination of the 2nd CRC report and follow-up; Monitor the implementation of the district CRC plans with a focus on the CCA, integrated program as well as children in dangerous situations, infanticide and HIV/AIDS. Support advocacy activities in areas pertaining to the Special Summit for Children.
Strategic Programme Monitoring and Evaluation	$:14,000 Rs:6.3 lakh	Setting up of **the interdepartmental monitoring cell** and developing the Child Info data base, as well as the **use of programme MIS** in districts with multi-sectoral UNICEF programs. Major activity will include the mid term review of UNICEF support to Karnataka and preparation of the **Situational Analysis of Women and Children** for providing inputs for the next program cycle.
Total	$1,408,500 6.3383 crore	

PROPOSED PROGRAM PRIORITIES IN 2001

It is proposed that UNICEF assistance programming priorities in 2001 shall include:

- Support to state government in strategic planning and policy formulation;
- Convergence and community based programming;
- New challenges and responses; and
- Improved monitoring and management of UNICEF support.

SUPPORT TO STRATEGIC PLANNING AND POLICY FORMULATION

UNICEF will continue to support interventions that will help the state in planning and strategy formulation. This will be done in two ways:

i) Providing of data bases, research and evaluation data and technical support systems to aid decision making;

ii) Piloting of interventions which are area or people specific to provide workable strategies

Providing of data bases or technical support systems that will help the government to access information, collate or analyse it differentially to provide a base for rational decision making. This also includes specific research into new problem areas to prepare for strategic implementations. Towards this, major interventions will include 1) Preparing a *Situational Analysis of Women and Children*; 2) Disseminating results of the *Second CRC Report;* 3) Using *ChildInfo* by govt departments to monitor progress made in realising rights of children 4) Linking of *'program MIS'* software to governmental monitoring systems so that it can be used by the Departments during their reviews; 5) providing support to a monitoring and evaulatuation cell; and 6) conducting *Multi Indicator Cluster Survey II* for obtaining data on the quality of service outreach and using MICs II information to improve program strategy and implementation. Unicef will be hiring a consultant and intern to assist with monitoring and evaluation activities and it is hoped that a JPO will be joining the Unicef office to provide greater support to Unicef and GoK on monitoring and evaluation in 2001.

Research and Evaluation studies include 1) *child labour in the cotton ginning and cotton seed industry* in Chitradurga and Raichur districts 2) Operational research pertaining to *parent-to-child transmission of HIV/AIDS*; 3) *Prevalence of adolescent anaemia* and strategic response to control and prevent; 4) *evaluation of Nalli Kalli* strategy 5) *study on violence against women* .

Piloting of interventions which are area or people specific to meet their special needs. In the past years notable strategies initiated have included *the Nalli Kalli* strategy of quality improvement, transitional strategies for mainstreaming working children into schools, and sustainable models of school sanitation.

In 2001specific strategies that will be piloted will include: sub ***centre strategy*** to improve the quality of health interventions in the four border districts of Raichur, Bidar, Bijapur and Gulberga.. Within the RCH program, a key strategy will be to establish sub centres as the core of activities and revitalise its linkages with the community so that planning of health services responds to community needs. ***Pulse strategy for supplementation of Vitamin A*** along the lines of the PPI strategy will seek to cover all children between the ages of nine

months and three years in a single campaign; transplanting the concept of ***neighbourhood based groups/leaders and community monitoring*** from urban community development models into rural areas, which will be tried out in two blocks each of Chitradurga, Raichur, and Gulberga districts. A strategy to empower families and childcare workers will be explored by adding a ***care dimension to early health and nutrition interventions*** will be explored. Unicef will support strategies to prevent ***anaemia in adolescent girls*** which includes covering all school-going adolescent girls (11 to 16 years) with a weekly regime of 100 mg. Iron and folic acid for 52 weeks. Resources to harness **IT** to support education and CCA initiatives will be explored.

Intersectoral Convergence and Community based programming

UNICEF will continue to support interventions that **strengthen the capacities of communities** to assess and analyse their own situations, set priorities and monitor integrated development activities. In 2001, UNICEF will focus on the convergent programs which are being undertaken and monitored in four districts of Karnataka. In these districts, communities will be empowered to develop and monitor micro plans. Program intervention will focus on ensuring that there is greater conceptual clarity amongst government counterparts regarding concepts of CCA. This will be done by hosting workshops at the state, district and block level. UNICEF will support the capacity of frontline workers (teachers, AWWs, literacy volunteers,) block functionaries, district sector staff, *panchayti raj* members and elected representatives, community members and children to understand and apply concepts associated with CCA.

UNICEF anticipates that by converging program interventions and actively supporting an integrated social development planning process, UNICEF, and GoK can more effectively fulfil rights of children and women. By focusing resources in blocks with greatest developmental deficits, it is anticipated that UNICEF will make a greater impact in influencing and improving developmental indicators in the states. The scope of convergence at the district and mandal level is outlined in the table below:

Karnataka **Number of blocks**

S No	Programme	Raichur	Gulbarga	Mysore	C'durga
1	Health/BDS interventions	Entire district	Entire district	1	2
2	ECCSGD/MCHN intervention	2	2		2
3	Joyful Learning in AWC 3-6 yrs	2	2	1	2
4	Universal Primary Edu (Jt UN Prog) 6-9 yrs	DPEP	DPEP	DPEP	2
5	NCLP for Edu of children 9-14 yrs	1	1	-	-
6	Child Labour/Protectio n Initiatives	1		1	1
7	School Sanitation	2		3	2
9	TMC and HFU operation			2	
10	CCA	1	1	2	1

The following process indicators will help HFO evaluate if the office is successfully converging program activities and reaching the hardest to reach communities.

- VDCs will be equipped with skills, backup support to ensure all children in school;
- 50% of girls in 12+ age group will access education and/or skill development opportunities;
- Communities will have access to safe water and school sanitation;
- Malnutrition levels will decrease from their present levels;
- There will be enhanced health delivery through activities of the community advisory board;
- There will be increased enrollment in AWCs and increased community satisfaction with functioning of AWC;
- Communities will be familiar with basic concepts of ECC SGD and the importance of infant and young child feeding; and
- Village social priorities will be identified and addressed with Village Development Funds.

Anticipated new Programmatic Challenges and Responses in 2001

- **Addressing previously unforeseen but pressing realities**: In 2001, UNICEF will address some previously unanticipated pressing developmental issues. **Prevention of HIV/AIDS** will receive much greater attention than in recent years and a consultant will work with the HFO team and with government counterparts to develop comprehensive HIV/AIDS prevention programs in the areas of: 1)prevention of parent-to-child transmission; 2) care of children affected by HIV/AIDS and 3) youth and HIV/AIDS. The possibility of out-posting an HIV/AIDS consultant to work with GoK will be explored. **Use of Internet technology** presents opportunities to more quickly and effectively reach program objectives - particularly in the areas of education and CCA. The use of **distance education technologies** including radio and television as effective instructional media for older age children, in 'second chance' education and teacher training presents new opportunities for innovation. In the WES sector, ways to expand the **school sanitation program** will be explored and there will be greater focus on **water quality monitoring** and surveillance. UNICEF will explore linkages with the **corporate sector** and explore avenues of co-operation that go beyond funding, identifying creative partnerships where corporate skills and strengths can be used to enhance overall programming for children, particularly in the areas of education, livelihoods advancement and school sanitation.

Effective management of UNICEF support

- **Operationalizing of the Assistance Management Strategy:** In 2000, the field office developed two objectives pertaining to its management of support. The AMS has been developed to maximise effectiveness and efficiency of individuals and teams to work towards achieving program and operational excellence. The two objectives of the AMS focus on:
  - supporting partners more effectively;
  - enhancing internal efficiency; and

- **Supporting partners more effectively:** Towards this end UNICEF has worked towards four main interventions which include 1) specific workshops to help state district level functionaries plan based on objectives and monitor program progress based on a clear set of indicators; 2) institutionalise a system of reviews every four months based on the above to facilitate program acceleration; 3) provide a system of a supportive audit for large programs where the budget exceeds 15 lakhs; and 4) providing a customised software to support account keeping and reporting.

- **Enhancing internal efficiency:** includes the organisations ability to respond with greater speed and sensitivity to the needs and requests from its partners. Specific interventions include 1) holding of program-wise supply workshops to draw up a supply plan for each program to ensure speedy processing of supply requirements; 2) ensuring that requests for cash assistance are processed within ten days of a proper request; 3)setting up a system to alert and follow up all advances that are over three months old; and 4) Identifying a team of two persons per district who will be responsible for trouble shooting and responding to district queries.

Conclusion

This approach paper provided an overview of the programs and areas of focus of the Hyderabad Field Office in 2001. The paper has presented the proposed goals and focus of the office as well as plans for enhanced intersectoral convergence. Anticipated programmatic challenges and proposed responses, as well as priority management and organisational development priorities also been presented.

It is hoped that upon review, a clear idea of program priorities will be established for 2001 and lead to a spirit of close collaboration and communication during the coming year.

Analysis of Expenditure on Medical & Public Health, Family Welfare

Dr. S. Subramanya*

Karnataka a federal state in India is located in the south-west part of the country. It is bounded, in the clockwise direction, by the States of Goa, Maharashtra, Andhra Pradesh, Tamil Nadu, Kerala and the Arabian Sea. The area of the State is 191,791 sq. km. and constitutes 5.38 percent of the area of the country.

Demographic Trends :-

The population of the State in 1991 was 44.98 million and accounted for 5.31 percent of the population of India. In terms of population size and geographic area, Karnataka ranks eighth among the States. Kannada is the mother tongue of 65.7 percent of the population. The compound annual growth rate of the population of Karnataka was 1.93 percent in the decade 1981-91. The decline in population growth rate has been more rapid in Karnataka than in India. In 1991, the urban population accounted for 30.91 percent of the population of the State as compared to 25.71 percent for India. The Crude birth rate (CBR) for Karnataka was estimated at 25.5 for the year 1993.

2. Morbidity Pattern

2.1 Morbidity Pattern among Users of Government Facilities

According to the Forty Second Round of National Sample Survey conducted in 1986-87, 40.3 persons per thousand population suffered from some ailment or other during 30 days preceding the date of interview and 89.6 percent of them consulted a doctor. Those who were admitted as inpatients during the preceding 365 days accounted for 21.8 per thousand population.

The estimates of outpatients and inpatients per thousand population per year for the government hospitals derived from the results of the Forty Second Round of National Sample Survey conducted in 1986-87 were 168.2 and 12.0 respectively. These estimates are close to those estimated from data on morbidity compiled from returns submitted by hospitals in the government sector for the year 1992. The average number of registrations in outpatient department is 176.8 per thousand population and for inpatient it is 12.3 per thousand population.

Between 1982 and 1992 there has been, in the government hospitals, an overall increase in outpatient consultations as well as admission as inpatients. The outpatients have increased by 47 percent and the inpatients by 65 percent while, the increase in total population has been 21 percent. The increase in outpatients and inpatients at government hospitals between the years 1982 and 1992 may be due to increase in morbidity level or in utilisation of hospital services or both. It may also be due to increase in cost of medical care in the private sector.

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The increase in treatment as outpatients for the respiratory, digestive, genito-urinary systems, complications due to pregnancy and the puerperium, and injuries and poisoning has been above the average of all diseases. The increase in inpatients for treatment of infectious diseases, neoplasm, endocrine, nutritionals & metabolic diseases and immunity disorders, mental disorders, diseases of circulatory system, diseases of genito-urinary system, complications due to pregnancy and the puerperium, diseases due to injuries and poisoning, has also been higher than the increase in total hospital admissions.

2.2 Causes of Death

During the decade 1981-91, the share of deaths due to parasitic diseases declined while that due to diseases of the circulatory system increased. The share of deaths among females due to complications of pregnancy and child birth declined. In 1991, diseases of the circulatory system constituted the single largest cause of deaths (23.5%) followed by infectious and parasitic diseases (19.6%). Injury and poisoning took the third place (14.6%). The fourth place was taken by conditions originating in the perinatal period (8.8%). Diseases of the respiratory system and diseases of the nervous system came fifth and sixth, accounting for 7.8% and 6.1% of deaths respectively. These six diseases accounted for 80.4 percent of deaths.

Analysis by age revealed that infant deaths formed 12.9 percent of total deaths. The major causes of infant deaths were slow foetal growth, foetal malnutrition and immaturity (28.7%), hypoxia, birth asphyxia and other respiratory conditions (20.2%) and all other causes originating in the perinatal period (17.6%). The age group 15-34 accounted for 28.4 percent of deaths of females due to all causes as compared to 16.3 percent in case of males. (Annual, 1991)

Objectives of the State

In Karnataka like any other state of India, the health sector is characterized by :

- A Government sector that provides publicly financed and managed health services throughout the state from Primary Health Centres to hospitals where free curative and preventive health services like ante-natal care, immunisation are made available to a large section of the population.
- A private sector comprising of mainly fee for service practitioners and a few hospitals with in-service facilities.

The Government sector is expected to be targetted towrads these weaker section of the society. There are a few reports in which attempts have been made to analyse Government expenditure on health services (Panchamukhi 1993; Reddy 1992; Tulasidhar 1993, Bhaskar Rao et al., 1993). There are limitations in analysing the health care expenditure on a national scale on account of the lack of disaggregated data (Burman 1997). In addition health care expenditure is incurred by the state Government and hence analysis of health care expenditure at state government level presents proper function. Narayana and Reddy (1993) and Mahopatra (1996) have analysed the expenditure incurred by Andhra Pradesh Government on health care during 1980s.

The primary objective of this assignment is to arrive at sector-wise expenditure, evaluate, & compare these expenditures on Primary, Secondary, and Tertiary Sectors over the years.

The secondary objective is to find out the proportional expenditure on Health & Family Welfare out of the total expenditure of the state over the years and derive at the trends.

In addition to the above objectives, it also envisages to find out and analyse expenditures on some important heads of account individually.

The estimates of expenditure are documented by Government of Karnataka mainly contain abstracts of expenditure on different Heads of Account. These Heads of Account are classified into Major Head, Sub Major Head, Minor Head, Group Head, Sub Head, and Object Head. Each year's document (i.e., volume IV) contains Account Expenditure (Plan & Non-plan) for last-but-one year, Budget Estimate (Plan & Non-plan) and Revised Budget Estimate (Plan & Non-plan) for the last year, and Budget Estimate (Plan & Non-plan) for that year.

However, the documents for Medical & Public Health, and Family Welfare do not provide any break-up on sector-wise allocation. It is important to have sector- wise break-up to know the way in which these expenditures are growing over the years in order to effectively plan development activities relating to health services. Hence, it becomes necessary to analyse these documents to arrive at sector-wise spending.

It is equally important to know the proportionate allocation of the total expenditure of the state to Medical & Public Health, and Family Welfare to have a clear picture about the trend of health services expenditure. Further, it becomes necessary to have item-wise expenditures to facilitate future decision making regarding usage of funds.

Hence, this analysis is presented to facilitate the decision-makers in planning and implementation of policies.

This paper attempts to examine the issues in expenditure on health and health related areas in the past 30 years to relating to allocation of funds.

3. Methodology

For this analysis, data from three sources is considered. First the annual financial statements of the state for the years 1990-91 through 1996-97. Second the detailed estimates of expenditure of Medical & Public Health and Family Welfare for 1990-91 through 1997-98 volume IV. Third, the Zilla Parishad Link documents for 1990-91 through 1997-98.

From the annual financial statements, the receipts and disbursements of the state are obtained. From these the per capita income and expenditures both at current prices

and constant prices (1980-81 prices) are calculated. In addition, the share of Services Sector in the total income and expenditures of the state, the share of Social Services, and Health & family welfare sector in the Social Services expenditure are calculated.

The Zilla Parishad link documents provide breakdown by account head the budget allocation for a given year. On the other hand, the volume IV presents consolidated figure of grant budgeted for the current year, revised estimate for the preceding year and the actual amount disbursed two years ago. The ratio of actual amount disbursed to amount budgeted for the year is used to deflate the disaggregated data presented in link document and replace the lump sum grant indicated in Part IV.

From the documents of detailed estimates of expenditures, various heads of accounts are sorted into three broad categories viz., primary, secondary, and tertiary. Further, the secondary sector is divided into two sub groups (teaching hospitals &others). To arrive at this sector-wise expenditure, first, the heads of accounts under each sub group are summed. These sub groups are then assigned to any of the three sectors (viz. primary, secondary, and tertiary) based on certain assumption mentioned in the following section.

The sector-wise expenditures are obtained and then compared over the years to understand the trends in the spending and to evaluate the primary objective. The actual expenditure on these sectors was also compared with the budget estimates to know the extent of utilisation. Also expenditure on some major items / heads of accounts were compared over the years individually to know the variations in spending. This analysis was carried out for the years 1990-91 through 1997-98.

4. Assumptions

1. The following assumptions are made while doing the above analysis:
    - All heads of account under the major head "Family Welfare" and "Public Health" are assigned to primary sector.
    - All heads of account under the sub major heads "Research", "Education", & "Training" are assigned to tertiary sector.

2. The following hospitals are taken into tertiary sector:
    - National Institute of Mental Health and Neuro Sciences.
    - The Bangalore Accidents Rehabilitation and Other Services Society.
    - Kidwai Memorial Institute of Oncology
    - Development of District Hospital, Raichur (OPEC).
    - Indira Gandhi Institute of Child Health

3. All hospitals attached to teaching institutions are taken into a separate group under secondary sector. These hospitals are:
    - Victoria Hospital, Bangalore.
    - College Hospital, Mysore.
    - College Hospital, Bellary.
    - KMC, Hubli.
    - District Hospital, Belguam.

- District Hospital, Gulbarga.
- Chigateri General Hospital, Davanagere.
- Head Quarters Hospital, Mangalore.

4. The heads of account relating to hospitals attached to teaching institutions are also taken into the separate group under secondary sector. These are:
   - Special improvements to buildings(Teaching Hospitals),
   - Provision of equipment to teaching hospitals,
   - Provision of ambulance to teaching hospitals,
   - Intensive care units and cardiac care units in teaching hospitals,
   - Modernised blood banks for teaching hospitals.
   - All other major hospitals, district hospitals and tuberculosis institutions are assigned to secondary sector.

5. KHSDP is considered for secondary sector.

6. DoH&FW, Administrative unit (ESI), Other Expenditure (ESI), Medical Stores Depot, Other Expenditure (Buildings), Director of Indian System of Medicine are considered common to all three sectors. These are later apportioned on the basis of percentage ratios of each sector.

7. Hospital unit (ESI), establishment maintenance units for hospital equipment, and repairs to hospital equipment are considered common for both secondary and tertiary sectors. These are later apportioned on the basis of percentage ratios of each sector.

8. The following are assigned to the Primary Sector.

9. Block assistance to Zilla Panchayats and Gram Panchayats is assigned to primary sector.

10. ICDS projects (Health Component) are assigned to primary sector.

11. All centre-sponsored schemes are assigned to primary sector.

5. Results:

5.1 Growth of Net Domestic Product

The Net Domestic Product of Karnataka at factor cost is given in Table # 5.1.

Table # 5.1 Net State Domestic Product of Karnataka at Factor Cost

	90-91	91-92	92-93	93-94	94-95 R.E	95-96 Q.E	96-97 @
Net Domestic Product (Crore Rupees)							
At Current Prices	20,550	26,736	29,132	33,794	39,158	43,422	47714
At 1980-81 Prices	9,112	10,270	10,482	11,275	11,728	12,361	13053
Per Capita Income (Rupees)							

At Current Prices	4,598	5,888	6,315	7,214	8,237	9,004	9758
At 1980-81 Prices	2,039	2,262	2,272	2,407	2,467	2,563	2669

R.E: Revised Estimate, Q.E: Quick Estimate, @: Anticipated
Source: Directorate of Economics and Statistics, Bangalore.

The Net Domestic Product at current prices increased at the annual compound growth rate of 15.1 percent between 1990-91 and 1996-97. During this period, the per capita NDP increased at an annual compound rate of 13.4%. Adjusting for inflation, the NDP grew at an annual compound growth rate of 6.2 percent and per capita NDP grew at an annual compound rate of 4.6 %.

5.2. State Revenue and Expenditure

5.2.1. Receipts

The total revenue of the State increased from Rs. 4,775.5 Crores in 1990-91 to Rs. 6938.1 Crores (at 1990-91 prices) in 1997-98 representing an annual compound growth of 8.6 percent. Tax revenues accounted for an average 59.1 percent of total revenues followed by States Share of Union Taxes at 17.9 percent and Services at 12.5 percent and grants in aid at 10.6 percent. Out of the total income from Services 80.8 percent is contributed by Interest and Economic Services, 12.3 percent by General Services, and 6.9 percent by Social Services.

Table 5.2.1 State Revenue Income at 1990-91 Prices and Share by Source

	90-91	91-92	92-93	93-94	94-95	95-96	96-97 Revised	97-98 Budget
Revenue Receipts Rs. Crore	3,892.2	4,137.0	4,399.5	4,759.0	4,706.9	5,485.0	6,351.0	6,938.1
	Percent of Gross Revenue							
State Tax Revenue	59.9	60.7	57.1	60.3	60.0	59.9	57.2	59.0
Non-tax Revenue	13.3	13.0	14.8	11.6	12.2	14.5	12.7	10.1
States Share of Union taxes	17.0	16.4	17.2	16.1	17.9	18.7	19.4	18.4
Grants-in-aid from Central Govt.	9.8	9.9	10.9	12.0	10.0	6.9	11.8	12.5

5.2.2. Expenditure

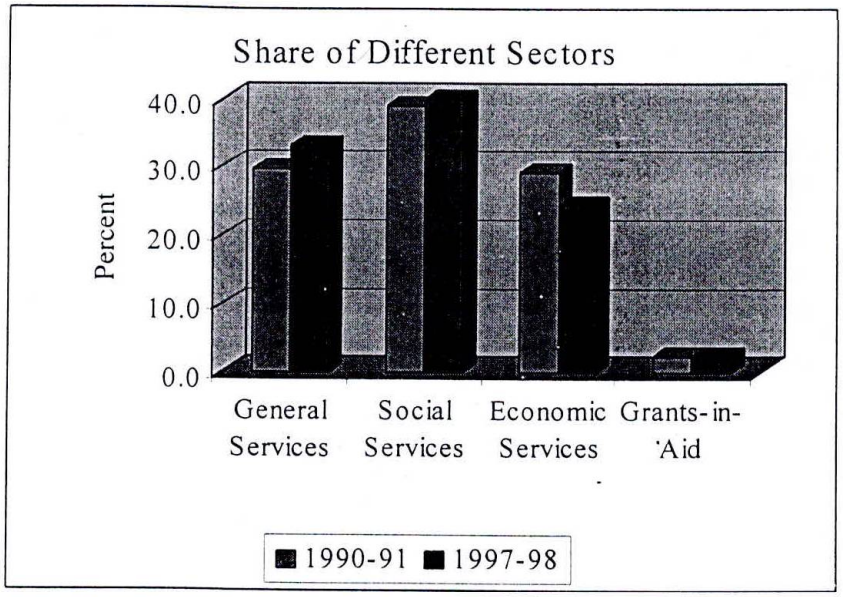
Table # 5.2 presents the Revenue and Capital expenditure for the period 1990-91 through 1997-98 at 1990-91 prices. The total revenue expenditure of the state increased from Rs. 3,971 Crores to Rs. 7,055 Crores at a compound annual rate of 8.6 percent. The expenditure on General Services grew at a faster rate (9.9 percent per annum) as compared to the other Sectors. The expenditure on Grants & Contributions grew at 8.3, that on Social Services at 8.5 percent, and that on Economic Services grew at 7.2 percent. This also indicates that the share of Social Services expenditure out of total expenditure is nearly constant at about 38 percent.

Table # 5.2 Revenue & Capital Expenditure by Sector at 1990-91 Prices

Crore Rupees

Revenue	90-91	91-92	92-93	93-94	94-95	95-96	96-97 Revised	97-98 Budget	Annual Growth %
General Services	1174.6	1231.9	1379.3	1433.3	1554.2	1714.3	1968.3	2273.3	9.9
Social Services	1538.9	1639.7	1689.7	1789.7	1860.0	2086.7	2379.7	2726.7	8.5
Economic	1159.3	1318.0	1367.4	1355.1	1393.5	1570.0	2158.3	1883.5	7.2
Grants & Contributions	98.3	102.1	101.2	93.2	99.2	73.3	129.8	171.9	8.3
Total	3971.1	4291.8	4537.5	4671.4	4906.9	5445.0	6636.2	7055.4	8.6
Capital									
General Services	11.4	11.8	15.5	17.3	15.0	15.9	13.7	9.4	-2.7
Social Services	17.7	28.2	31.4	39.2	46.3	52.8	38.7	59.6	18.9
Economic	625.8	640.9	591.4	837.3	706.5	727.7	508.3	518.8	-2.6
Total	654.9	680.8	638.3	893.8	767.9	796.4	560.8	587.8	-1.5

The share of General Services in revenue expenditure increased from 29.6 percent in 1990-91 to 32.2 percent in 1997-98 while that of Economic Services declined 29.2 to 24.4 percent. The share of Social Services increased marginally from 38.8 percent in 1990-91 to 39.9 percent in 1997-98.



5.3. Expenditure by Sector

5.3.1. Expenditure on Social Services

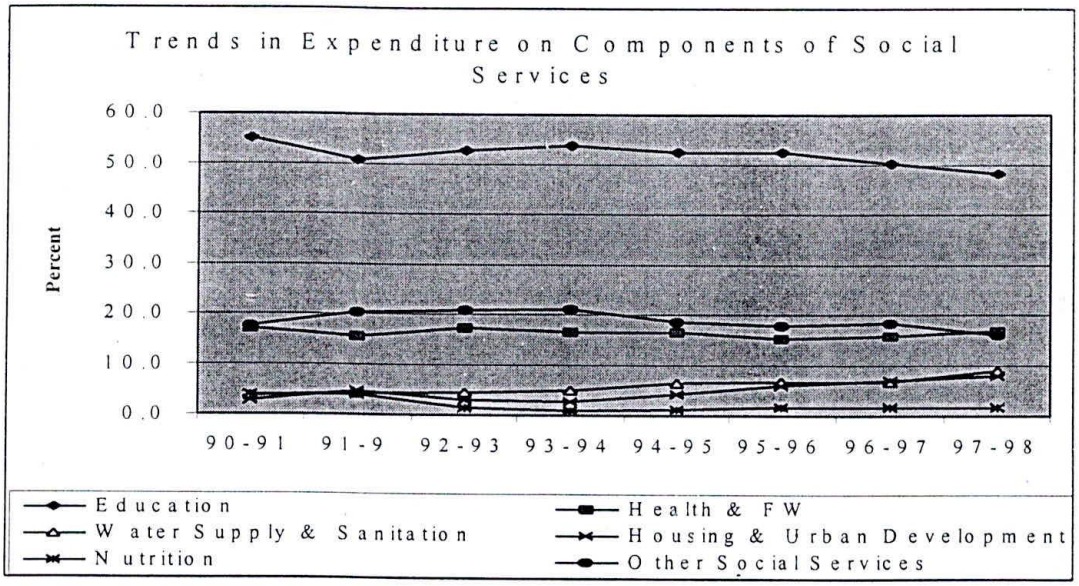
Table # 5.3 presents the Revenue Expenditure on Social Services Sector. This increased from Rs. 1,596 Crores to Rs. 2,727 Crores (1990-91 prices) at an annual compound rate of 7.9 percent. The annual compound growth rates for the other components of social services are 7.8 percent for Health & Family Welfare, 23.1 percent for Water Supply & Sanitation, 25.4 percent for Housing & Urban Development -4.3 percent for Nutrition and 6.7 percent for Other Social Services.

Table # 5.3 Revenue Expenditure on Social Services Sector

Crore Rupees (at 1990-91 prices)

	90-91	91-9	92-93	93-94	94-95	95-96	96-97	97-98
Education	878.6	832.9	890.8	961.7	978.1	1093.3	1197.0	1314.7
Health & FW	270.7	255.9	292.3	294.4	309.2	318.8	374.1	459.2
Water Supply & Sanitation	58.2	70.2	77.7	89.2	121.9	141.9	161.3	249.4
Housing & Urban Development	44.2	78.7	52.4	49.1	80.4	123.7	165.8	215.7
Nutrition	64.4	67.5	24.7	19.2	25.3	37.1	42.8	47.2
Other Social Services	280.3	334.7	351.8	376.1	345.1	372.0	438.7	440.6
Total	1596.4	1639.8	1689.7	1789.7	1860.0	2086.7	2379.7	2726.8

The expenditure on each component increased at different rates. The growth in expenditure on water supply & sanitation and housing increased at a faster rate. This resulted in a decline in the share of education has from 55.0 to 48.2 percent over the seven-year period while the share of water supply & sanitation increased from 3.6 to 9.1 percent and housing from 2.8 to 7.9 percent.



5.3.3. Public Expenditure on Health Related Items

Table 5.3.3.1 presents the trends in Health Related Services. The expenditure on Health related items grew in real terms at the rate of 7.9 percent per annum. There has been considerable variation in growth rates between different components. The expenditure on nutrition declines in real terms at the rate of 4.3 percent per annum. The expenditure on General Education increased at 6.0 percent per annum while that on Health & Family Welfare services increased at an annual rate of 7.8 percent. The expenditure on Water supply and Sanitation as well as that on housing grew at over 23 percent.

The per capita expenditure on health in 1997-78 has been Rs. 712 at current prices and that on Health & Family Welfare Rs. 154. The Health Related items account for 30 percent of total revenue expenditure of the sate and the Health & Family Welfare

account for 6.5 percent of States revenue expenditure.

The Expenditure on Health Related items forms 6.0 percent of State Domestic Product.

Table 5.3.3.1 Trend in Expenditure on Health Related Items

Item	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98
	Expenditure in 1990-91 prices: Crore Rs.							
General Education	827.0	786.7	844.0	911.1	924.7	1034.8	1136.9	1245.7
Health & Family Welfare	270.7	255.9	292.3	294.4	309.2	318.8	374.1	459.2
Water Supply & Sanitation	58.2	70.2	77.7	89.2	121.9	141.9	161.3	249.4
Housing	20.1	79.7	77.7	28.3	48.4	50.9	79.5	117.1
Nutrition	64.4	67.5	24.7	19.2	25.3	37.1	42.8	47.2
Total Health & Related Services	1240.4	1259.9	1316.4	1342.2	1429.5	1583.5	1794.7	2118.6
Per capita Expenditure on Health Related Services at current prices Rs.	281.1	323.3	353.8	372.0	444.2	507.9	587.7	712.1
Per capita Expenditure on Health & Family Welfare Services at current prices Rs.	61.3	87.9	78.6	83.7	96.1	102.2	122.5	154.3
Expenditure on Health Related Items as Percent of State's Revenue Expenditure	31.2	29.4	29.0	28.7	29.1	29.1	27.0	30.0
Expenditure on Health & FW Services as Percent of State's Revenue Expenditure	6.8	6.0	6.4	6.3	6.3	5.9	5.6	6.5
Expenditure on Health Related Items as Percent of SDP	6.0	5.4	5.6	5.3	5.4	5.7	6.1	
Expenditure on Health &FW as Percent of SDP	1.3	1.1	1.2	1.2	1.2	1.1	1.3	
Per capita Expenditure on Health Related Services Rs.	281.1	323.3	353.8	372.0	444.2	507.9	587.7	712.1
Per capita Expenditure on Health & Family Welfare Services	61.3	87.9	78.6	83.7	96.1	102.2	122.5	154.3

During 1986-89, The per capita expenditure on health related items in Karnataka are marginally less than that for India. A comparison among the southern states shows that Karnataka stands third and its expenditure on health related items is about 70 percent of that spent in Kerala and Tamil Nadu.

State	Per Capita Expenditure at 1988-89 Prices
Andhra Pradesh	63.73
Karnataka	67.94
Kerala	86.74
Tamil Nadu	95.62
India	68.91

5.4. Expenditure by Primary, Secondary and Tertiary Sectors

Table # 5.4 Expenditure Primary, Secondary & Tertiary

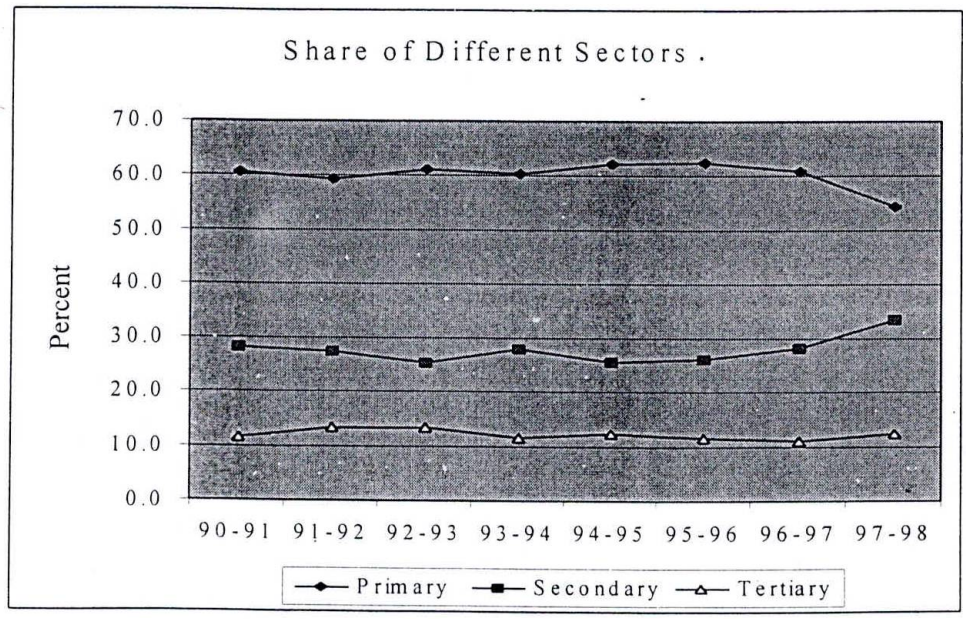
Crore Rupees (at 1990-91 prices)

	Sector			
Year	Primary	Secondary	Tertiary	
90-91	147.09	68.31	27.62	243.02
91-92	150.73	70.01	33.75	254.49
92-93	179.20	74.40	39.14	292.73
93-94	177.71	82.41	34.11	294.22
94-95	192.03	79.16	37.88	309.07
95-96	199.04	83.34	36.35	318.73
96-97	227.56	105.11	41.47	374.13
97-98	248.94	154.03	56.23	459.19
Growth % 1990-97	6.4	6.3	6.0	6.4
1990-98	7.8	12.3	10.7	9.5

The expenditure on primary sector had the highest annual growth rate 6.4 percent followed by the Secondary sector with 6.3 percent. The growth of expenditure on the Tertiary sector was only 6.0 percent.

The expenditure on the Secondary sector in 1996-98 is due the launch of Karnataka Health Systems Development Project. During 1997-98 the provision for Medical Education, Research and Training was Rs. 22.0 crores more (or 50 percent more) than the preceding year resulting in a higher growth of 10.0 percent per annum.

The share of primary sector shows a decline in 1997-98 due to the initiation KHSDP for strengthening the secondary sector. However, the combined share of the primary and the secondary sectors remains unchanged at 88 percent.



5.5. Expenditure by Item

The expenditure by item of expenditure is presented in Table # 5.5.1.

Table # 5.5.1. Revenue Expenditure by Sector and Item for 1997-98 And Share of each item in a sector

Crore Rs.(at 1997-98 prices)

Item of Expenditure	Primary Sector		Secondary Sector		Tertiary Sector		All Sectors	
	Amount	% Share	Amount	% Share	Amount	% Share	Amount	% Share
Salaries	100.91	24.10	104.64	39.25	40.21	43.03	245.76	31.56
Travel Expenses	1.75	0.42	0.60	0.22	0.25	0.27	2.59	0.33
Office Expenses	3.15	0.75	10.01	3.75	2.12	2.27	15.28	1.96
Drugs & Chemicals	26.33	6.29	33.37	12.52	1.08	1.16	60.79	7.81
Hospital Necessities	0.00	0.00	5.44	2.04	1.34	1.44	6.79	0.87
Diet Expenses	0.29	0.07	8.73	3.28	0.24	0.26	9.26	1.19
Linen	0.00	0.00	1.27	0.48	0.00	0.00	1.27	0.16
Equipment & Apparatus	29.02	6.93	6.97	2.62	9.98	10.68	45.98	5.90
Training	1.82	0.43	0.04	0.01	5.28	5.65	7.13	0.92
Schemes	18.26	4.36	0.00	0.00	0.00	0.00	18.26	2.35
Compensations	2.66	0.64	0.00	0.00	0.00	0.00	2.66	0.34
Buildings	11.76	2.81	4.21	1.58	0.00	0.00	15.96	2.05
Others	0.97	0.23	0.19	0.07	1.24	31.90	2.41	0.31
Grants	187.96	44.89	10.38	3.89	29.81	2.02	228.15	29.32
Lump Sum	33.84	8.08	80.77	30.29	1.89	1.33	115.85	14.89
Total 1997-98	418.70	100.00	266.61	100.00	93.45	100.00	778.77	100.00

There is no break up by item of expenditure is available for amounts disbursed as Grants as well as amount budgeted/accounted under Lump Sum. The amount for which break up is not available by item of expenditure is 53 percent for the Primary Sector, 34 for the Secondary Sector and 32 percent for the tertiary sector for the current year (1997-98). The lump sum provision of Rs. 75 crores KHSDP accounts for bulk of provision under the head "Lump Sum". In case of the Tertiary Sector grants to autonomous institutions account for major portion of expenditure under this head. The details of expenditure are available from the financial accounts of individual institutions and need to be analysed to get a better picture of item wise expenditure in this sector.

Salaries and allowances form the major component of expenditure (31.5%) followed by Drugs & Chemicals (7.8 percent) and Equipment and Apparatus (5.9 percent).

Table # 5.5.2 presents the breakdown of expenditure for 1990-91 at 1997-98 prices by item of expenditure and sector as well as the compound annual growth rate between 1990-91 and 1997-98.

Table # 5.5.2 Expenditure in 1990-91 at 1997-98 Prices and Annual Growth Rate Between 1990-91 and 1997-98 by Expenditure Item and Sector

Crore Rs. (at 1997-98 prices)

Item of Expenditure	Primary Sector		Secondary Sector		Tertiary Sector		All Sectors	
	Amount	Growth %	Amount	Growth %	Amount	Growth %	Amount	Growth %
Salaries	60.87	7.5	61.74	7.8	20.59	10.0	143.19	8.0
Travel Expenses	2.15	-3.0	0.80	-4.1	0.23	1.2	3.19	-2.9
Office Expenses	2.98	0.8	19.97	-9.4	3.54	-7.1	26.49	-7.6
Drugs & Chemicals	13.45	10.1	8.70	21.2	0.14	34.4	22.29	15.4
Hospital Necessities	3.74	-100.0	0.72	33.5	0.11	43.0	4.58	5.8
Diet Expenses	5.36	-34.1	4.43	10.2	0.17	4.7	9.97	-1.0
Linen	0.00	*	0.05	60.9	0.00	-100.0	0.05	60.7
Equipment & Apparatus	5.64	26.4	5.39	3.7	0.53	52.0	11.57	21.8
Training	1.18	6.4	0.20	-21.7	1.65	18.0	3.03	13.0
Schemes	8.49	11.6	0.11	-100.0	0.00	*	8.60	11.4
Compensations	4.03	-5.8	0.00	*	0.00	*	4.03	-5.8
Buildings	9.06	3.8	0.00	*	0.00	*	9.06	8.4
Others	0.53	9.0	0.10	10.0	0.50	7.8	1.13	7.9
Grants	101.18	9.3	9.09	1.9	17.62	1.1	127.89	8.6
Lump Sum	30.78	1.4	4.56	50.8	1.75	14.0	37.09	18.2
Total 1990-91	249.45	7.7	115.85	12.6	46.84	10.4	412.14	9.5

Note: Growth % is compound annual growth rate between 1990-91 to 1997-98

Table # 5.5.3 presents trend in expenditure by sector and item.

Table # 5.5.3 Expenditure by Sector and Item at 1997-98 prices

Crore Rupees at 1997-98 prices

Item of Expenditure	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Salaries	60.87	51.79	63.78	55.50	58.41	61.59	90.66	100.91
Travel Expenses	2.15	1.96	1.82	1.41	1.51	0.84	0.99	1.75
Office Expenses	2.98	3.79	2.97	2.71	1.26	1.96	1.82	3.15
Drugs & Chemicals	13.45	7.48	13.71	16.69	18.73	20.65	20.27	26.33
Hospital Necessities	3.74	0.00	0.08	0.03	0.00	0.00	0.00	0.00
Diet Expenses	5.36	0.18	0.07	0.08	0.04	0.12	0.24	0.29
Linen	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00
Equipment & Apparatus	5.64	8.33	9.27	16.33	19.92	18.31	26.08	29.02
Training	1.18	2.67	4.65	1.30	1.91	1.18	1.56	1.82
Schemes	8.49	9.35	11.39	10.94	11.16	13.29	17.39	18.26
Compensations	4.03	3.64	2.49	4.61	1.98	1.46	2.66	2.66
Buildings	9.06	8.22	12.89	12.42	11.01	11.11	9.19	11.76
Others	0.53	4.74	0.73	0.58	0.66	0.65	0.99	0.97
Grants	101.18	114.15	138.92	134.61	144.31	156.99	172.56	187.96
Lump Sum	30.78	35.31	38.93	40.80	50.97	45.64	35.98	33.84
Primary Sector Total	**249.45**	**251.61**	**301.69**	**298.01**	**323.12**	**333.80**	**380.41**	**418.70**
Salaries	61.74	59.25	67.32	71.52	69.69	61.61	91.39	104.64
Travel Expenses	0.80	0.57	0.41	0.65	0.49	1.00	0.36	0.60
Office Expenses	19.97	22.89	22.43	21.47	20.33	11.12	11.23	10.01
Drugs & Chemicals	8.70	8.06	12.09	16.87	17.37	19.26	28.47	33.37
Hospital Necessities	0.72	0.78	0.61	0.74	1.04	0.49	0.50	5.44

Diet Expenses	4.43	4.67	5.95	4.74	4.99	6.06	7.30	8.73
Linen	0.05	0.45	0.14	0.77	0.16	0.78	0.79	1.27
Equipment & Apparatus	5.39	2.72	2.73	13.32	5.46	5.47	3.34	6.97
Training	0.20	0.29	0.10	0.25	0.36	0.12	0.04	0.04
Schemes	0.11	0.37	0.00	0.00	0.00	0.08	0.00	0.00
Compensations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Buildings	0.00	3.14	2.79	0.74	2.54	2.48	2.13	4.21
Others	0.10	1.37	0.00	0.33	0.13	0.10	0.13	0.19
Grants	9.09	8.86	11.65	10.20	9.07	9.56	9.91	10.38
Lump Sum	4.56	5.84	2.46	3.04	6.71	28.29	29.69	80.77
Secondary Total	**115.85**	**119.26**	**128.71**	**144.64**	**138.34**	**146.42**	**185.26**	**266.61**
Salaries	20.59	20.03	22.04	21.69	21.05	16.31	29.60	40.21
Travel Expenses	0.23	0.38	0.13	0.22	0.26	0.10	0.21	0.25
Office Expenses	3.54	2.84	3.52	2.91	3.41	2.93	1.32	2.12
Item of Expenditure	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Drugs & Chemicals	0.14	0.14	0.38	0.57	0.58	0.80	0.95	1.08
Hospital Necessities	0.11	0.15	0.21	0.19	0.21	0.16	0.17	1.34
Diet Expenses	0.17	0.17	0.16	0.22	0.22	0.23	0.21	0.24
Linen	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
Equipment & Apparatus	0.53	0.20	0.32	0.48	0.27	0.35	0.47	9.98
Training	1.65	2.96	2.19	2.74	2.69	3.28	4.17	5.28
Schemes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compensations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grants	0.50	5.72	0.45	0.88	1.18	0.88	0.66	1.24
Lump Sum	17.62	24.99	32.94	25.17	26.93	25.07	26.38	29.81
Others	1.75	3.12	2.92	1.54	5.88	10.20	4.69	1.89
Tertiary Total	**46.84**	**60.71**	**65.31**	**56.61**	**62.69**	**60.32**	**68.82**	**93.45**
Salaries	143.19	131.08	153.14	148.70	149.15	139.52	211.65	245.76
Travel Expenses	3.19	2.91	2.37	2.28	2.26	1.94	1.56	2.59
Office Expenses	26.49	29.52	28.92	27.09	25.00	16.01	14.37	15.28
Drugs & Chemicals	22.29	15.68	26.18	34.13	36.68	40.71	49.69	60.79
Hospital Necessities	4.58	0.93	0.90	0.96	1.25	0.65	0.67	6.79
Diet Expenses	9.97	5.02	6.18	5.04	5.24	6.41	7.75	9.26
Linen	0.05	0.45	0.18	0.77	1.42	0.78	0.79	1.27
Equipment & Apparatus	11.57	11.25	12.32	30.13	25.65	24.13	29.90	45.98
Training	3.03	5.92	6.94	4.29	4.96	4.59	5.77	7.13
Schemes	8.60	9.72	11.40	10.95	11.16	13.37	17.39	18.26
Compensations	4.03	3.64	2.49	4.61	1.98	1.46	2.66	2.66
Buildings	9.06	11.36	15.68	13.16	13.55	13.59	11.32	15.96
Others	1.13	11.83	1.17	1.79	1.97	1.63	1.78	2.41
Grants	127.89	148.00	183.52	169.98	180.32	191.63	208.85	228.15
Lump Sum	37.09	44.27	44.32	45.38	63.56	84.13	70.36	116.49
Grand Total	**412.14**	**431.59**	**495.71**	**499.26**	**524.16**	**540.54**	**634.49**	**778.77**

The Salary revision was implemented in 1996-97. Consequently the expenditure by way of salaries showed a sudden spurt. Earlier there was a ban on recruitment, which resulted in a marginal decline in salaries during 1994-95.

5.6. Conclusion

As mentioned earlier the grants and lump sum account for over a third of the expenditure. The breakdown of this by item of is available with the concerned

department or the Zilla Parishad but are not captured by individual item in the accounts. It is recommended that the data be from different departments should be collected and reflected in the books of account.

The transfer of drugs, supplies and equipment is effected without raising a transfer invoice. Due to this, expenditure on these items had to be allocated on the basis of total expenditure on remaining items. It is recommended that transfers should be effected only after raising a transfer invoice and reflect such transfers in the books of account.

Health Financing - An Analysis

1. State Finances, Health Finances and Efficiency : Three key issues with regard to public sector finances at the state level need to be addressed. First, the overall fiscal situation in many states has deteriorated sharply since the early 1990s, with a rise in the fiscal deficit, an increase in interest payments as a share of total revenues, and an increase in debt outstanding as a share of state domestic product. The deterioration in the overall financial situation faced by the states has had a deleterious effect on the health sector. The share of health and family welfare in the total state revenue budgets has declined since the early 1990s, suggesting that past declining trends of health sector's share in the budget has been exacerbated, rather than reversed. The decline in the health sector's share occurred despite a rise in real per capita expenditures in all states up to 1991, indicating that total government expenditures rose faster than health expenditures. Total government spending is about US$ 2-3 per capita for health services and is inadequate to meet the government's stated objectives. To achieve the government's objective of funding a basic package of health services, substantially more resources for health care are required, but the overall state finances noted above pose a serious problem. Second, within the health sector in most states, resource allocation in the public sector is skewed in favour of tertiary care services relative to needs at the primary and secondary levels, particularly rural and community hospitals. Third, much of the resources are absorbed by salary costs. The recurrent budget for operations and maintenance is chronically under-funded and the programs are not fully effective.

2. Alternative Methods of Health Care Financing : The resource constraints faced in the health sector will required alternative methods of health care financing to supplement budgetary allocations. Alternative methods of financing health care, such as cost recovery, social and private insurance, and participatory schemes, are limited. Reported revenue data indicate that cost recovery in the health sector is about 3% on average in India, although there are problems in estimating the level. Some of the problems faced with cost recovery include : (a) lack of an appropriate mechanism within the government to review user charges; (b) weak administrative mechanism for collecting user fees; (c) difficulty in targeting the poor for exemption from user fees; and (d) constraints to greater retention of funds generated through user charges at the point of collection. Based on international experience it should be noted, however, that a cost recovery rate of 15-20% in the health sector is about the most that can be expected in the public sector. In the long run, issues such as private insurance and managed health care will need to be addressed, as the industrial and urban sectors in India expand, and cost containment becomes increasingly important.

3. Implement Cost-Recovery Mechanisms

Develop an Institutional Framework for Periodic Review of User Charges. The states should set up an institutional framework to review the structure of user fees and pricing policy periodically, and recommend revisions as necessary. The Strategic Planning Cells established in the health departments in the four states studied provide a viable institutional arrangement for this purpose.

Strengthen Collection Mechanisms and Target Vulnerable Groups for Exemptions : Analysis shows that substantial increases in revenue can be gained by concurrently strengthening the mechanism for collecting user charges and periodically revising them. State governments should increase cost recovery in the health sector from an average of about 3% to about 15-20% in the next 3-5 years. In addition, adequate targeting mechanisms to identify the poor should be implemented both in rural and urban areas. Due to the administrative costs involved, it is preferable to strengthen the existing system for targeting the poor rather than create a new mechanism.

Retain Revenues at the Point of Collection. Hospitals and health facilities should be allowed to retain all of the revenues collected. Alternatively, district health committees or health systems corporations (e.g., as in Andhra Pradesh and Punjab) could be empowered on their behalf to retain such revenues and redistribute them among hospitals within the district according to both need and level of collection.

Utilize Revenue for Non-Salary Recurrent Expenses : Revenue collected should be used for non-salary recurrent expenditure items such as drugs, essential supplies and record keeping. A modest fee could be charged for out-patients, as is currently being done in West Bengal and charges concentrated on diagnostic and other services, as well as on voluntary services such as private rooms or wards and on medical services with a relatively low cost-effectiveness. Increased charges should be introduced in a phased manner and matched with higher quality of service.

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Improving Access to SC / ST Population
Yellow Card Scheme

Status Report : November, 1999

State Profile:

The southern Indian State of Karnataka incorporates the erstwhile state of Mysore and the adjacent Kannada speaking regions. It is the eight largest state in India in terms of area and population. It has a population of 45 millions (1991 Census) and a sex ratio of 960. The SC / ST population of 9.0 millions makes up 20% of the total population. The literacy rate in the general population is 56%, where as the SC / ST population has a comparatively low literacy rate. The Infant Mortality Rate in the state is 81.

Administratively, the state is divided into four divisions - Bangalore, Mysore, Gulbarga and Belgaum. There are 27 districts with 175 talukas. Bangalore is the state capital.

Background of Scheme:

The SC / ST population in rural Karnataka, especially the women and children suffer a higher morbidity and mortality compared to the general population as revealed by the survey done in 1995. Factors such as illiteracy, poverty and continuing trends of social discrimination in the community have attributed to this status. Improving access of available health facilities to these under privileged communities will help change the trend. The Government of Karnataka decided in 1995 to introduce a scheme in which health facilities in rural areas are extended to the door-steps of the SC / ST populations and issued G.O. No. HFW 16 CGM 95 on the subject.

One of the broad objectives of KHSDP is to improve healthy facility access to these disadvantaged section of the rural community. This objective is being met through a special target intervention called 'Yellow Card Scheme'. In this scheme, disadvantaged Schedule Caste (SC) and Schedule Tribe (ST) population in rural areas are being medically screened through bi-annual health check-up camps being held in all the subcentres of the state. A team of doctors, nurses, laboratory technicians, dispenser and health educators, senior and junior health assistants, examine the beneficiaries, detect ailments that may be present and treat them. Special feature of the out-reach health camps is that a Lady Medical Officer of the team examines the women in the age group 35-60 and screens them for cervical and breast cancer. These camps are being held as per a calendar drawn by the district health authorities for the year.

The Pilot Scheme:

Karnataka Health Systems Development Project began implementation of Yellow Card Scheme as a pilot scheme in Nov 1996. Two PHCs each in two talukas of the five districts of Mysore, Hassan, Raichur, Bijapur and Kolar were chosen for this purpose. Health check-up camps were held at subcentre level in all these PHCs.

The health check-up team consisted of Medical Officer of the PHC, LMO, LHV, ANM, a lab technician and a dispenser. The table below provides data on beneficiaries examined in two districts.

District	Taluka	PHC	SC/ST Population	SC/ST Screened at Camp	SC/ST Treated at Camp
Mysore	T. Narsipura	Mogaru	9,676	655	655
		Talkadu	4,722	950	915
	Nanjangud	Hosakote	7,436	4,879	2,591
		Tagaduru	3,994	1,621	1,458
Hassan	Holenarsipura	Padavalhippe	6,757	3,861	
		Bakenahally	3,817	2,170	
	Arsikere	Dodda Metta	5,353	4,039	
		Javagal	10,217	1,313	

A rapid evaluation was conducted in Dec '96 by a team from the Central Planning Cell using the facilities at the population centre with an aim to evaluate the process and to decide if scheme needs modifications. The District Health and Family Welfare Officer, a sample of Medical Officers of PHCs, ANMs of subcentre where camps were held and beneficiaries were interviewed on 23-12-96.

The results of this survey are summarised as follows :

1. The scheme is welcome by the community and will positively benefit the SC/ST population.

2. The health check-up team should be more broad-based and include health educators.

3. Drugs, laboratory chemicals, stationary, referral cards and yellow cards should be available in adequate quantities in the camps. Vehicles should be provided at taluka and PHC levels.

4. District Health and Family Welfare Officer should be released funds to meet expenses for fuel, hiring of transport and other incidental expenses.

5. Local village Panchayat leaders should be involved in the scheme.

6. In order to derive maximum benefit, the Medical Officer of PHC should be entrusted with the responsibility of planning and implementing these camps with the support of the Taluka Administrative Medical Officer who will be the nodal officer at taluka level.

7. Organisation should be set up at district, taluka, PHC and subcentre level to steer and implement the programme.

First Phase of Implementation :

Having seen the need for the scheme and successful implementation of the pilot scheme, the KHSD Project extended the Yellow Card Scheme to all the PHCs of the five districts in March '97. Baseline beneficiary data was collected from these five districts. More health check-up camps were held in all subcentres of the district and beneficiaries examined, investigated and treated. Patients who needed treatment at a higher facility were referred using a referral card for the purpose. By May 1997, the coverage in these five districts was as follows:

District	Beneficiary population	Beneficiaries		
		Examined / Screened	Treated	Referred to Hospital
Mysore	6,13,225	7,105	5,519	105
Hassan	2,83,881	12,258	6,735	35
Kolar	6,37,971	4,898	3,152	12
Raichur	5,78,000	9,656	6,545	12
Bijapur	5,35,416	18,158	7,356	68
Total	**26,48,493**	**52,075**	**29,307**	**232**

All the five districts of first phase were allocated funds as follows :

1. POL Expenses : Rs. 1,00,000 per district
2. Vehicle hire cheques : Rs. 1,50,000 per district
3. Honorarium for LMOs : Rs. 2,00,000 per district

An amount of Rs. 37.8 lakhs was allotted for purchase of drugs for yellow card scheme for these districts.

Operationalisation and Progress in Financial Year 1997 - 98 :

The Steering Committee approved an operationalisation plan to extend the Yellow Card Scheme to all the districts of the State in its meeting held on 16-06-97 at an estimated cost of Rs. 54.1 million which was sanctioned in G O No. HFW (PR) 429 WBA 97 dated 25-07-97. Accordingly, the scheme was launched in all the remaining 15 districts in Aug - Sept '97 after district level workshops were held to train the Medical Officers of district and taluka levels. The programme was put into operation for only 3-4 months as it was suspended at the end of January '98 on account of ensuing parliamentary elections. Drugs, laboratory chemicals and Yellow Cards were procured and distributed to the districts. Districts were also given funds to meet operational expenses such as POL, honorarium for LMOs, camp arrangements, stationary and training. A total amount of Rs. 9.0 million was spent for drugs, while the expenditure on laboratory chemicals was about Rs. 1.0 million. Sixteen lakhs Yellow Cards were distributed at a cost of Rs. 1.6 million. As the scheme worked for only 4 months and because of other constraints only Rs. 11.3 million could be utilised during the year.

Progress in Financial Year 1998 - 1999 :

Implementation of annual health check-up camp at subcentre levels continued in this year also. The Project Management Unit (PMU) has continued district support to the scheme by distributing more Yellow Cards and referral cards, new implementation manual with new camp dates for each subcentre, more drugs, chemicals for laboratory testing and IEC materials like brochures, pamphlets and posters. The PMU conducted a review of the scheme in January '99 to assess the performance of the districts. Details of the outcome of review are given separately. Out of a total budget of Rs. 61.7 million for the Financial Year 1998-99, the scheme utilised approximately Rs. 17.8 million towards purchase of drugs, Yellow Cards, POL for hired vehicles, honorarium for LMOs and incidental expenditures in camps.

Table 3 : Expenditure on Yellow Card Scheme : FY 1997-98 and FY 1998-99

Sl. No.	Item of Expenditure	Expenditure (Rs. million)
1.	Drugs	18-90
2.	Laboratory chemicals	3.29
3.	Hiring of vehicles and POL	0.72
4.	Honorarium for Lady Medical Officers	0.22
5.	Training	1.10
6.	Information, Education, Communication (IEC)	0.56
7.	Printing Cards a) Yellow Cards	3.60
	b) Referral Cards	0.05
8.	Contingency	0.64
	Total	**29.10**

Progress in Financial Year 1999 - 2000 :

There has been a fairly good progress in Yellow Card. Scheme this year also. All districts in the state have continued to conduct health check-up camps at subcentres as per an action plan which the districts themselves have prepared. The Project Management Unit (PMU) continued support to the districts by distributing drugs worth Rs. 75 lakhs and money for camp expenses. About 7.5 lakh yellow cards are being printed and distributed before the end of November 1999. Each district has been given Rs. 2 lakhs for camp related expenses such as hiring vehicles, services of Lady Medical Officers and so on.

Coverage of Target - Present Status :

The health check-up camps have been held for about 2 years since inception. Reports from districts received upto September 1999, show a coverage of 20,63,285 SC/ST population (23.3%) out of the total target population of 88,62,958. In the present financial year (April '99 - Sept '99), the coverage has been 4.8%. The northern Karnataka division of Belgaum and Gulbarga have shown a good performance with a coverage of 6% and 9.7% respectively, while the division of Bangalore and Mysore have achieved only 2.9% and 1.3% respectively. In the

overall target coverage, Belgaum division has recorded the highest (33.9%) while Bangalore division has recorded the lowest (18.2%). In all, 1810 camps have been held in this year with Gulbarga division holding the highest number of camps. So far, 12,153 camps have been held in the state with an average attendance of 170 beneficiaries per camp. Gulbarga division has attracted highest number of beneficiaries (231). Table 4 gives division-wise coverage.

Table 4 : Division-wise Coverage in Health check-up camps upto Sept. 1999

Sl. No.	Division (No. of districts)	Population	Beneficiary Coverage No. (%)				No. of camps held			
			1997-98	1998-99	1999-2000	Total	1997-98	1998-99	1999-2000	Total
1	Bangalore (7)	32,19,971	1,14,804 (3.6)	3,77,436 (11.7)	94,655 (2.9)	5,86,895 (18.2)	1163	2489	539	4191
2	Mysore (8)	19,41,358	2,00,194 (10.3)	2,43,508 (12.5)	25,898 (1.3)	4,69,600 (24.2)	715	2716	63	3494
3	Belgaum (7)	15,26,721	1,75,898 (11.5)	2,49,765 (16.3)	91,543 (6.0)	5,17,206 (33.9)	506	1493	355	2354
4	Gulbarga (5)	21,74,908	18,662 (0.8)	2,600,79 (11.9)	2,10,843 (9.7)	4,89,584 (22.5)	113	1148	853	2114
	State (27)	**88,62,958**	**10,22,913 (69%)**	**11,30,788 (12.7)**	**4,22,939 (4.8)**	**20,63,285 (23.3)**	**2497**	**7846**	**1810**	**12,153**

About 70% of the SC/ST people who visited the health check-up camps had health problems which needed treatment. About 3% of the sick needed referral to a higher health facility. A total of 12,153 health check-up camps have been held so far.

Table 5 : Health Status of Beneficiary

Sl. No.	Division (No. of districts)	No. Examined	No. Treated (% of no. Examined)	No. Referred (% of no. Treated)
1	Bangalore (7)	5,86,895	4,00,910 (68)	16,314 (4)
2	Mysore (8)	4,69,600	2,78,885 (59)	6,830 (2.5)
3	Belgaum (7)	5,17,206	4,27,870 (83)	8,056 (2)
4	Gulbarga (5)	4,89,584	3,18,079 (65)	6,311 (2)
	State	**20,63,285**	**14,25,744 (69)**	**2.6% of those treated**

Districts have been sending reports of camp activities and yellow card scheme every month. In the first year of the scheme, the reporting was irregular, but now, most of the districts send the reports regularly. Age and sex based beneficiary data on treated and referred cases, laboratory tests carried out and important diseases identified are being collected.

An analysis of eleven important diseases/symptoms shows that fever from any cause (11%), upper respiratory infections (URI) (10%), worm infestations (8%) and anaemia are common health problems among the SC/ST population. Scabies (2.3%) appears to be a prevalent skin disease. In spite of preventive interventions, Vitamin A deficiency has been

observed in 0.8% of the beneficiaries. Diabetes mellitus and hypertension have been detected in 0.6% and 0.5% respectively, of the treated beneficiaries. The analysis also reflects that diarrhoea is not any more the highest reported disease/symptom. A district-wise analysis shows that some districts show much higher percentage of patients than the state average, eg., Fever cases - Tumkur (46%), Bagalkote (17%) and Hassan (16%), Diabetes in Kolar (1.2%), Tumkur (2.9%), Bidar (3.5%). These data help interventions in terms of early treatment of patients and long term strategies for preventive and promotive care.

Data pertaining to drug utilisation is also being captured. Analgesics like aspirin, paracetamol, diclofenac, anti-infectives like furadantin, ampicillin, tetracyclin, de-worming medicine and Vitamin A capsule are being utilised.

Programme Review :

The Project Management Unit (PMU) reviewed the performance of the districts in January 1999 in terms of coverage, training, expenditure of funds, organisation and sensitization. The performance of six districts viz., Bidar, Bellary, Dharwad, Raichur, Bangalore (Rural) and Bangalore (Urban) were found to be less satisfactory. A group of officers from the PMU evaluated the performance of these districts through interaction with district, taluk and PHC medical officers, beneficiaries and through field visits. Based on the feedback from these districts and shortfalls noticed in other districts the following activities have been incorporated into the new action plan for the FY 1999-2000.

1. The District Health & Family Welfare Officer and the District Surgeon, although well sensitized to the programme, should work unison.

2. The District Health & Family Welfare Officer ensures completion of organisation at all levels and monitors their functions.

3. The district health systems committees meet atleast once a month and discuss issues related to yellow card scheme.

4. Action plan for re-training and health check-up camps will be prepared and submitted atleast two months in advance.

5. The District Health & Family Welfare Officer submits the district reports on yellow card scheme regularly.

6. Districts intensify IEC activities to increase awareness among staff as well as beneficiary population.

7. The PMU will augment support to the districts through more frequent supplies of yellow card, drugs and laboratory chemicals. A manual on syndromic approach to identify common diseases will be distributed to all junior health workers to enhance their skills in screening the beneficiaries.

Some of the activities incorporated into the action plan for the year 1999-2000 have been implemented :

1. There is better coordination between District Health & F W Officers and the District Surgeons.

2. The District Health System Committees are meeting regularly to allot funds for yellow card activities.

3. The districts have been regularly sending reports on yellow card scheme

4. A community need based IEC strategy is being developed and districts have been provided with guidelines to develop locally, IEC materials and distribute suitably.

5. A syndrome approach to disease identification by junior health workers at subcentre level has been developed in vernacular and is being distributed. This will help the workers in early identification of diseases and prompt referral.

The developmental objective of improving health facility access to the disadvantaged rural sections in Karnataka is being met. In the ensuing years the project will concentrate more on better monitoring inputs, IEC activities and follow up services to those diagnosed sick in these camps through better linkages of PHcs with higher health facilities. More involvement of NGOs and other non-health government functionaries in training and IEC activities is envisaged.

GOV-2.

Project Agreement

dated

16.01.97

between

KREDITANSTALT FÜR WIEDERAUFBAU

and the

GOVERNMENT OF KARNATAKA

for

DM 23,000,000.00

- Upgrading Secondary Level Health Care Facilities in Karnataka, Phase I -

Project Agreement

between

KREDITANSTALT FÜR WIEDERAUFBAU, Frankfurt am Main
("KfW")

and the

GOVERNMENT OF KARNATAKA
acting by its Governor,
represented by the
Health and Family Welfare Department
("Project-Executing Agency")

By the agreement dated 16.01.97 ("Financing Agreement") KfW has extended to India ("Recipient") a Financial Contribution not exceeding

DM 23,000,000.00.

On the basis of this Financing Agreement the Project-Executing Agency and KfW conclude the following Project Agreement:

Article 1

Purpose of the Financial Contribution

1.1 The financial contribution channelled in full as grant to the Project-Executing Agency shall be used exclusively for the financing of the costs, primarily the foreign exchange costs, for the rehabilitation, extension and modernization of secondary level hospitals in the Gulbarga Division as well as for drugs, consumables and vehicles; construction of and equipment for four maintenance workshops; construction of staff housing units and waste disposal facilities as well as consulting services ("Project"). Retroactive Financing would be effected from December 1995.

The Project-Executing Agency and KfW shall determine the details of the Project and the goods and services to be financed from the financial contribution by a separate agreement.

1.2 Taxes and other public charges to be borne by the Project-Executing Agency and import duties shall not be financed from the financial contribution.

Article 2

Disbursement

2.1 KfW shall disburse the financial contribution through Government of India to the Project-Executing Agency in accordance with the progress of the Project and upon request of the Project-Executing Agency. By a separate agreement, the Project-Executing Agency and KfW shall determine the disbursement procedure, in particular the evidence proving that the withdrawn funds are used for the stipulated purpose.

2.2 KfW shall have the right to refuse to make disbursements after December 30, 2002.

Article 3

Contractual Statements and Power of representation

3.1 The Secretary of the Health and Family Welfare Department of the Project-Executing Agency and such persons as designated by him or her to KfW and authorised by specimen signatures authenticated by him or her shall represent the Project-Executing Agency in the execution of this Agreement. The powers of representation shall not expire until their express revocation by the representative authorised at the time has been received by KfW.

3.2 Amendments of, or addenda to, this Agreement and any notices and statements delivered by the contracting parties under this Agreement shall be in writing. Any such notice or statement shall have been received once it has arrived at the following address of the corresponding contracting party or at such other address of the corresponding contracting party as notified to the other contracting party:

For KfW:

Kreditanstalt für Wiederaufbau
Postfach 11 11 41
60046 Frankfurt am Main
Federal Republic of Germany
Telefax: (069) 74 31-29 44
Telex: 4 15 25 60 kw d

For the Project-Executing Agency:

Government of Karnataka
Health and Family Welfare Department
III Stage (First Floor) Multistoreyed Buildings
Dr. B.R. Ambedkar Road
Bangalore - 560 001
India
Telefax: 0091-80-2252499

Article 4

The Project

4.1 The Project-Executing Agency

a) shall prepare, implement, operate and maintain the Project in conformity with sound financial and engineering practices and substantially in accordance with the Project concept agreed upon between the Project-Executing Agency and KfW;

b) shall engage independent, qualified European consulting engineers working in cooperation with local consultants to assist in the preparation and supervision of the Project and shall assign the implementation of the project to qualified local firms;

c) shall award the contracts for the consulting services to be financed from the financial contribution direct and the contracts for the goods and all other services to be financed from the financial contribution upon prior competitive bidding which may be limited to firms domiciled in India, or upon prior international competitive bidding, as the case may be;

d) shall maintain, or cause to be maintained, books and records unequivocally showing all costs of goods and services required for the Project and clearly identifying the goods and services financed from this financial contribution;

e) shall enable the representatives of KfW at any time to inspect said books and records and any and all other documentation relevant to the implementation of the Project, and to visit the Project and all installations related thereto and

f) shall furnish to KfW any and all such information and records on the Project and its further progress as KfW may request.

4.2 The Project-Executing Agency and KfW shall determine the details pertinent to Article 4.1 by a separate agreement.

Article 5

Miscellaneous Provisions

5.1 If any of the provisions of this Agreement is invalid, all other provisions shall remain unaffected thereby. Any gap resulting therefrom shall be filled by a provision consistent with the purpose of this Agreement.

5.2 The Recipient and the Project-Executing Agency may not assign or transfer, pledge or mortgage any claims from this Agreement.

5.3 This Agreement shall be governed by the law of the Federal Republic of Germany. The place of performance shall be Frankfurt am Main. In case of doubt as to the interpretation of this Agreement, the German text shall prevail.

5.4 The legal relations established by this Agreement between KfW and the Project-Executing Agency shall terminate with the end of the useful life of the Project but not later than fifteen years after the signing of this Agreement.

5.5 For the amount of DM 3.0 million this Project Agreement shall not enter into force until the Government Agreement on which this amount is based has entered into force.

Done in four originals, two in German and two in English.

Frankfurt am Main,

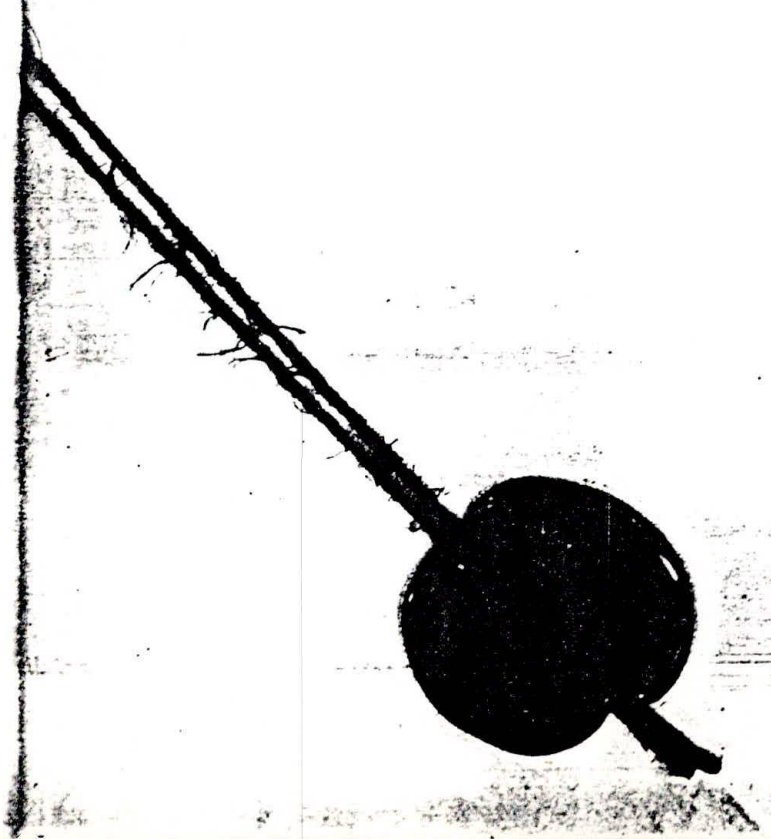
this 16.01.97

KREDITANSTALT FÜR WIEDERAUFBAU

Bangalore,

this 16.01.97

GOVERNMENT OF KARNATAKA



Projektvertrag

vom

16.01.97

zwischen der

KREDITANSTALT FÜR WIEDERAUFBAU

und der

REGIERUNG VON KARNATAKA

über

DM 23.000.000,--

- Gesundheit (Sekundarkrankenhäuser) Karnataka, Phase I -

Projektvertrag

zwischen der

KREDITANSTALT FÜR WIEDERAUFBAU, Frankfurt am Main,
("KfW")

und der

REGIERUNG VON KARNATAKA
vertreten durch ihren Gouverneur
sowie durch das
Health and Family Welfare Department
("Projektträger")

Die KfW hat sich durch Vertrag vom 16.01.97 ("Finanzierungsvertrag") verpflichtet, Indien ("Empfänger") einen Finanzierungsbeitrag bis zur Höhe von

DM 23.000.000,–

zu gewähren.

Auf der Grundlage dieses Finanzierungsvertrages schließen der Projektträger und die KfW den nachstehenden Projektvertrag:

Artikel 1

Verwendungszweck

1.1 Die vom Empfänger in voller Höhe als Zuschuß an den Projektträger weitergeleiteten Finanzierungsmittel werden ausschließlich für die Finanzierung der Kosten für Rehabilitierung, Erweiterung und Ausbau von Sekundarkrankenhäusern in der Gulbarga Division sowie deren Erstausstattung mit Medikamenten, Ge- und Verbrauchsgütern und Fahrzeugen; Bau und Einrichtung von 4 Werkstätten für Wartungszwecke; Bau von Personalwohnungen und Abfallentsorgungsanlagen sowie Consultantleistungen ("Projekt"), und zwar vorrangig zur Bezahlung der Devisenkosten, gewährt. Retroaktive Finanzierung wird ab Dezember 1995 wirksam sein.

Der Projektträger und die KfW bestimmen durch besondere Vereinbarung die Einzelheiten des Projekts sowie die Lieferungen und Leistungen, die aus dem Finanzierungsbeitrag finanziert werden sollen.

2 Steuern und sonstige öffentliche Abgaben, die der Projektträger zu tragen hat, sowie Einfuhrzölle werden aus dem Finanzierungsbeitrag nicht finanziert.

Artikel 2

Auszahlung

2.1 Die KfW zahlt den Finanzierungsbeitrag über die indische Regierung entsprechend dem Projektfortschritt auf Abruf des Projektträgers an den Projektträger aus. Der Projektträger und die KfW regeln durch besondere Vereinbarung das Auszahlungsverfahren, insbesondere den Nachweis für die vereinbarungsgemäße Verwendung der abgerufenen Beträge.

2.2 Die KfW kann Auszahlungen nach dem 30. Dezember 2002 ablehnen.

Artikel 3

Vertragliche Erklärungen und Vertretung

3.1 Der Secretary Health and Family Welfare Department des Projektträgers und die von diesem gegenüber der KfW benannten und durch von ihm beglaubigte Unterschriftsproben legitimierten Personen vertreten den Projektträger bei der Durchführung dieses Vertrages. Die Vertretungsbefugnisse erlöschen erst, wenn ihr ausdrücklicher Widerruf durch den jeweils zuständigen Vertreter der KfW zugegangen ist.

3.2 Änderungen oder Ergänzungen dieses Vertrages sowie andere Erklärungen und Mitteilungen, die aufgrund dieses Vertrages zwischen den Vertragspartnern abgegeben werden, bedürfen der Schriftform. Erklärungen und Mitteilungen sind zugegangen, sobald sie bei der nachstehenden oder einer anderen, dem Vertragspartner mitgeteilten Anschrift des betreffenden Vertragspartners eingegangen sind:

Für die KfW:

Kreditanstalt für Wiederaufbau
Postfach 11 11 41
60046 Frankfurt am Main
Bundesrepublik Deutschland
Telefax: (069) 74 31-29 44
Telex: 4 15 25 60 kw d

Für den Projektträger:

Government of Karnataka
Health and Family Welfare Department
III Stage (First Floor) Multistoreyed Buildings
Dr. B.R. Ambedkar Road
Bangalore 560 001
India
Telefax: 0091-80-2252499

Artikel 4

Das Projekt

.1 Der Projektträger

a) wird das Projekt unter Beachtung ordnungsgemäßer finanzieller und technischer Grundsätze sowie in wesentlicher Übereinstimmung mit der zwischen ihm und der KfW abgestimmten Projektkonzeption vorbereiten, durchführen, betreiben und unterhalten;

b) beauftragt unabhängige, qualifizierte europäische beratende Ingenieure, die mit lokalen Consultants zusammenarbeiten, ihn bei der Vorbereitung und Bauüberwachung des Projekts zu unterstützen, und überträgt die Durchführung des Projekts qualifizierten lokalen Bauunternehmen;

c) vergibt die Aufträge für die aus dem Finanzierungsbeitrag zu finanzierenden Consultingleistungen unmittelbar und die Aufträge für die aus dem Finanzierungsbeitrag zu finanzierenden Lieferungen und alle anderen Leistungen teils nach vorangegangener öffentlicher Ausschreibung, die auf Unternehmen mit Sitz in Indien begrenzt werden kann, oder teils nach vorangegangener internationaler öffentlicher Ausschreibung;

d) wird Bücher und Unterlagen führen oder führen lassen, aus denen alle Kosten für Lieferungen und Leistungen für das Projekt und die mit diesem Finanzierungsbeitrag finanzierten Lieferungen und Leistungen eindeutig ersichtlich sind;

e) wird den Beauftragten der KfW jederzeit die Einsicht in diese Bücher und in alle übrigen für die Durchführung und den Betrieb des Projekts maßgebenden Unterlagen sowie die Besichtigung des Projekts und aller mit ihm in Zusammenhang stehenden Anlagen ermöglichen und

f) wird alle von der KfW erbetenen Auskünfte und Berichte über das Projekt und seine weitere Entwicklung geben.

2 Der Projektträger und die KfW regeln durch besondere Vereinbarung die Einzelheiten zu Artikel 4.1.

Artikel 5

Verschiedenes

5.1 Sollte eine Bestimmung dieses Vertrages unwirksam sein, so bleiben die übrigen Bestimmungen hiervon unberührt. Für eine etwa hierdurch entstehende Lücke soll dann eine dem Zweck dieses Vertrages entsprechende Regelung gelten.

5.2 Der Projektträger kann Ansprüche aus diesem Vertrag nicht abtreten oder verpfänden.

5.3 Dieser Vertrag unterliegt dem in der Bundesrepublik Deutschland geltenden Recht. Erfüllungsort ist Frankfurt am Main. In Zweifelsfällen ist für die Auslegung dieses Vertrages der deutsche Wortlaut maßgebend.

5.4 Die durch diesen Vertrag begründeten Rechtsbeziehungen zwischen der KfW und dem Projektträger enden mit dem Ablauf der Lebensdauer des Projekts, spätestens jedoch 15 Jahre nach Unterzeichnung dieses Vertrages.

5.5 Dieser Projektvertrag tritt für den Betrag von DM 3,0 Mio erst ist Kraft, wenn das diesem Betrag zugrundeliegende Regierungsabkommen in Kraft getreten ist.

In vier Urschriften, je zwei in deutscher und englischer Sprache.

Frankfurt am Main,

den 16.01.97

KREDITANSTALT FÜR WIEDERAUFBAU

Bangalore,

den 16.01.97

REGIERUNG VON KARNATAKA

GOV-2

NOTE

Sub: Signing of agreements between Government of India State Government and the KfW on the secondary hospital development project in Gulbarga Division.

****

The agreements referred to above have signed after discussion in the chambers of Shri Subash Kuntia. Director, Department of Economic Affairs. The following documents were signed:

1. Financial agreement between the Government of India and KfW:
2. The project agreement between Government of Karnataka and KfW:
3. Supplementary agreement laying down the procedures for implementation of the project between Karnataka Government and KfW;
4. An Agreed Minutes of the discussion indicating that there could be some changes in the supplementary agreement to facilitate the implementation of the project on the lines of the World Bank Project.

(GAUTAM BASU)
Secretary to Government
Health & Family Welfare Department

To ICHSDP
21/12

CAO, ICHSDP.

AGREED MINUTES OF THE DISCUSSION BETWEEN REPRESENTATIVES OF GOVERNMENT OF KARNATAKA AND REPRESENTATIVES OF KFW, GERMANY FOLLOWING SIGNING OF THE FINANCING AGREEMENT, THE PROJECT AGREEMENT AND SEPARATE AGREEMENT FOR IMPLEMENTATION OF THE PROJECT OF UPGRADING OF SECONDARY LEVEL HEALTH CARE FACILITIES IN KARNATAKA PHASE I ON 16-1-1997 AT 10.30 AM IN DEA, DELHI

Having expressed satisfaction over the execution of the Agreements, the contracting parties agree that in the course of the implementation of the project, some practical problems may arise rendering the operation of some clauses in the agreement difficult and that such problems can be solved by mutual discussion between the representatives of Government of Karnataka and KfW, taking due note of the procedures being followed under the World Bank assisted Karnataka Health Systems Project.

KREDITANSTALT FUR WIEDERAUFBAU

K. HEIDT

GOVERNMENT OF KARNATAKA

GAUTAM BASU,
SECRETARY HEALTH & FAMILY WELFARE, KARNATAKA.

Date: 16-1-1997

Supplementary Conditions of Kreditanstalt für Wiederaufbau (KfW) for Payments under the Disposition Fund Procedure ("Supplementary Conditions")

The following conditions are applicable to payments under the agreed Disposition Fund Procedure:

1. After prior agreement with KfW the Project-Executing Agency will arrange for a Special Account to be opened (Special Account) with a renowned bank (bank in charge of the account), which will be kept in its own name or in the name of a third party authorized by the Authorized Party and, specifically, to handle

   a) expenditures in foreign exchange:
   with a commercial bank in Germany or in another country from which the majority of procurements is to be made.

   b) expenditures in local currency:
   with a commercial bank/central bank in the country of the Authorized Party. As far as possible, this account is to be kept as a foreign currency account in the country of the Authorized Party in order to avoid losses from currency devaluation and to allow retransfer at all times; in appropriate cases expenditures in foreign currency can also be effected from this account.

   The Special Account must be kept exclusively for payment transactions under the Disposition Fund on a credit basis. KfW has the right to obtain information on this account at all times.

2. Unless expressly agreed otherwise, KfW will make an initial deposit at the request of the Authorized Party up to the agreed amount, generally for an amount of the planned expenditures for three months as soon as

   a) it has been notified of the name and place of the bank in charge of the special account and of the account holder, as well as of the account number and designation (project/measure, nature of account, e.g. trust account) of the Special Account;

   b) it has received a Confirmation of the Bank in charge of the Account in the form required by KfW (see Annex 2/1);

   c) it has received a Transfer Instruction of the party authorized to draw on the account, in the form indicated in Annex 2/2;

   d) all remaining contractual prerequisites are fulfilled:
   - the Project Management Team is fully staffed and in place,
   - Government orders have been issued providing authority to the Project Executing Agency to manage essential operational activities including civil works construction and maintenance activities,
   - the Project-Executing Agency has provided KfW an implementation schedule for the various project measures in the Gulbarga Division including the number of posts to be sanctioned and filled up each year during the project period.

3. Payments may be made only for the agreed purpose and only for measures approved by KfW in writing (for instance, on the basis of concluded supply and service contracts, cost and time schedules for the implementation of force-account work, procurement lists agreed with KfW, etc.).

4. KfW will replenish the Disposition Fund at the request of the Project-Executing Agency within the agreed ceiling as soon as it has received within the agreed period and accepted **appropriate evidence of expenditures in simplified form** (see. Annex 2/3, specimen request for replenishment). Taxes and other public charges that have to be paid by the Project-Executing Agency of the financial contribution as well as import duties and, in the case of force-account work, general administrative expenses of the Project-Executing Agency of the financial contribution cannot be financed.

5. Unless expressly agreed otherwise, the Project-Executing Agency shall keep all **original evidence of expenditures** corresponding to the disbursements made through the Disposition Fund (including documents according to item 4 of the "Guidelines for Disbursement of Funds from Financial Cooperation and Comparable Programmes by KfW", furthermore statements of account, bank confirmations of exchange rates applied and other documents) until at least five years after completion of the financed measures, and will have them accessible at all times for inspection by KfW or third parties so instructed by KfW (e.g. auditors) or will send them on request to KfW or third parties commissioned by KfW.

6. The Project-Executing Agency will ensure that **down payments** made will be credited against goods supplied/services rendered and that available discounts will be used.

7. Any **credit interest** may be used first to pay bank fees relating to the Special Account; any amounts remaining are to be used for measures according to item 3 above.

8. If the amount available in the Disposition Fund are not needed in full, contrary to plan (usually expenditures for 3 months), the Project-Executing Agency will of its own accord refund and advise to KfW any funds not required unless a different arrangement has been reached.

The Project-Executing Agency will ensure that **all agreed evidence of expenditures** is completely at KfW's disposal within twelve months after conclusion of the measures/completion of the project or after disbursement in full of the funds intended for the Disposition Fund.
Any amounts that cannot be adequately proven to have been expended for the agreed purpose will be refunded to KfW immediately by the Project-Executing Agency.

9. KfW is no longer obligated to replenish the Disposition Fund and is entitled to recall any credit still in the Fund if it is entitled towards the Recipient of the financial contribution to suspend disbursements under the Financing Agreement.

10. KfW has the right at any time

a) to reduce the volume of the Disposition Fund and

b) to demand the refund of amounts that have not been adequately proven to have been properly used.

11. All repayments are to be made to the account of KfW with the Landeszentralbank Frankfurt/Main, No. 500 204 00 in favour of the relevant account of the Loan/Financing Agreement.

Annex 2/1: Specimen for "Confirmation of Bank in charge of the Account" according to item 2.b.
Annex 2/2: Specimen for "Transfer Instruction" according to item 2.c.
Annex 2/3: Specimen for "Request for Replenishment and submission of evidence of use of funds"

Annex No. 2/1 to the "Supplementary Conditions" of KfW

Confirmation of the Bank in charge of the account

To Kreditanstalt für Wiederaufbau
Palmengartenstrasse 5-9
60325 Frankfurt am Main

German Financial Cooperation
Financing Agreement of KfW dated .....
No.: 95 66 944.....
Designation of Project: Upgrading Secondary Level Hospitals in the Gulbarga Division
Special Account No. / .....

The Department of Health and Family Welfare (DHFW)/Government of Karnataka has requested us by letter dated ..... to open a special account to be maintained exclusively on a credit basis for payments to be made from funds of German Financial Cooperation.

We therefore have opened a special account no. ..... for payments from the above Financial Contribution in the name of DHFW with the separate designation "Special Account Upgrading Secondary Level Hospitals in the Gulbarga Division".

We have taken notice that the above account will be filled and replenished exclusively with purpose-tied funds from the above Loan/Financial Contribution and we herewith waive the assertion of our right to offset and retention as well as our right of lien in respect of these balances to which we are entitled under our general bank conditions or to which we may be entitled for any other reasons. We will inform you without delay of any attachments on the part of third parties in the above Special Account.

The party/ies/persons authorized to draw on the account is/are .....
(Secretary DHFW or his/her nominee together with the consultant)

We shall not modify the authority to draw on the above account unless and until we have received the consent of KfW.

We are permitted by the Account Holder to draw on the Account to inform you at any time of the account and the payment transactions effected via the account. The Account Holder to Draw on the Account has informed us that it has issued to you an instruction to transfer the balances on the above account to your account No. 500 204 00 with the Landeszentralbank, Frankfurt/Main.

This confirmation applies equally to any sub-accounts.

Date

Signature of Bank in charge of the account

Annex No. 2/2 to the "Supplementary Conditions"

Transfer Instruction

to
(bank in charge of the account)

German Financial Cooperation
Financing Agreement of KfW dated .....
No.: 95 66 944.....
Designation of Project: Upgrading Secondary Level Hospitals in the Gulbarga Division.....
Special Account No. / Designation: ...../Upgrading Secondary Level Hospitals in the Gulbarga Division

Dear Sir/Madam:

We herewith instruct you irrevocably to transfer the balances existing on the above account and on any related sub-accounts to the account of Kreditanstalt für Wiederaufbau, Frankfurt/Main, No. 500 204 00 with the Landeszentralbank Frankfurt/Main in favour of the above Loan/Financial Contribution account whenever this Transfer Instruction is presented to you by Kreditanstalt für Wiederaufbau.

.....
Date

.....
Signature of account holder/party authorized to draw

.....
Confirmation of signature by Bank in charge of the account

This Transfer Instruction is to be addressed to the Bank in charge of the account and sent to the Bank first for examination of signature. The Transfer Instruction is then to be forwarded, either directly or via the bank in charge of the account, to KfW together with its "Confirmation". KfW will inform the account holder/authorized party in the event it intends to make use of this Transfer Instruction and will state the reasons for this.

Annex No. 2/3 to the "Supplementary Conditions" of KfW

Re: ..... Date .....
(Partyauthorized to request replenishment)

To Kreditanstalt für Wiederaufbau
Abt. RS b3
Palmengartenstrasse 5-9
60325 Frankfurt am Main

German Financial Cooperation
Financing Agreement of KfW dated .....
No.: 95 66 944.....
Designation of Project: Upgrading Secondary Level Hospitals in the Gulbarga Division.....
Special Account No. / Designation: ...../Upgrading Secondary Level Hospitals in the Gulbarga Division
.....
Bank in charge of the account: .....

Request for replenishment and submission of evidence of use of funds under the Disposition Fund Procedure

Dear Sirs:

In accordance with the agreed Disposition Fund Procedure we enclose documentary evidence on the use of funds in simplified form substantiating the use of DM ..... (in the case of expenses in local or third currency, amounts are listed in the relevant currencies and their equivalents in DM at prevailing exchange rates). This evidence is composed of:

1. ☑ Status of account pursuant to Annex I

2. ☑ Cumulated statement of expenditures for supplies/services provided on the basis of the budget agreed with KfW for this purpose, specimen: Annex II.

3. ☒ Statement of expenditures made in the current accounting period for goods supplied/services rendered for each specific measure/contract, specimen: Annex III.

We confirm that the expenditures were made and accounted for in conformity with the provisions on the Disposition Fund Procedure and were not financed from any other sources. The original documentary evidence is kept at ..... and is available for inspection by yourselves at any time.

We request replenishment of the Disposition Fund Special Account Upgrading Secondary Level Hospitals in the Gulbarga Division No. ..... with ..... (name and place of bank in charge of the account) in the amount of DM ..... (or foreign currency equivalent).

.....
Signature of party authorized to request replenishment
Annexes: Specimen forms
Annex I: Status of account Annex II: Cumulated statement Annex III: Statement of individual items

Specimen Annex I to the Request for replenishment No. ..... dated .....

Status of account for the accounting period ..... to .....
(to be made up also for any sub-accounts)
(for amounts in foreign currency, attach statement of bank on exchange rates applied)

	DEM or other currency
Balance of account at beginning of accounting period	
+ Amounts received through KfW **according to attached bank vouchers**	
- Payments effected (sum of column 4, Annex 2)	
+ Credit interest	
- Bank fees	
= Balance of account at end of accounting period according to **attached statements of account for entire accounting period**	

Date ..... Signature ..... Authorized Party

Specimen Annex II to the Request for replenishment No. .... dated ..... (cumulated statement)

Loan/Financing Agreement No. | Designation of Project | Accounting period from ..... to .....

1	2	3	4	5	6
Current No./type individual measures	Amount agreed with KfW	Expenditures in preceding accounting periods	Expenditures in current accounting period	Total expenditures	Still to be disbursed (column 2 minus column 5)

Date ..... Signature ..... Authorized Party

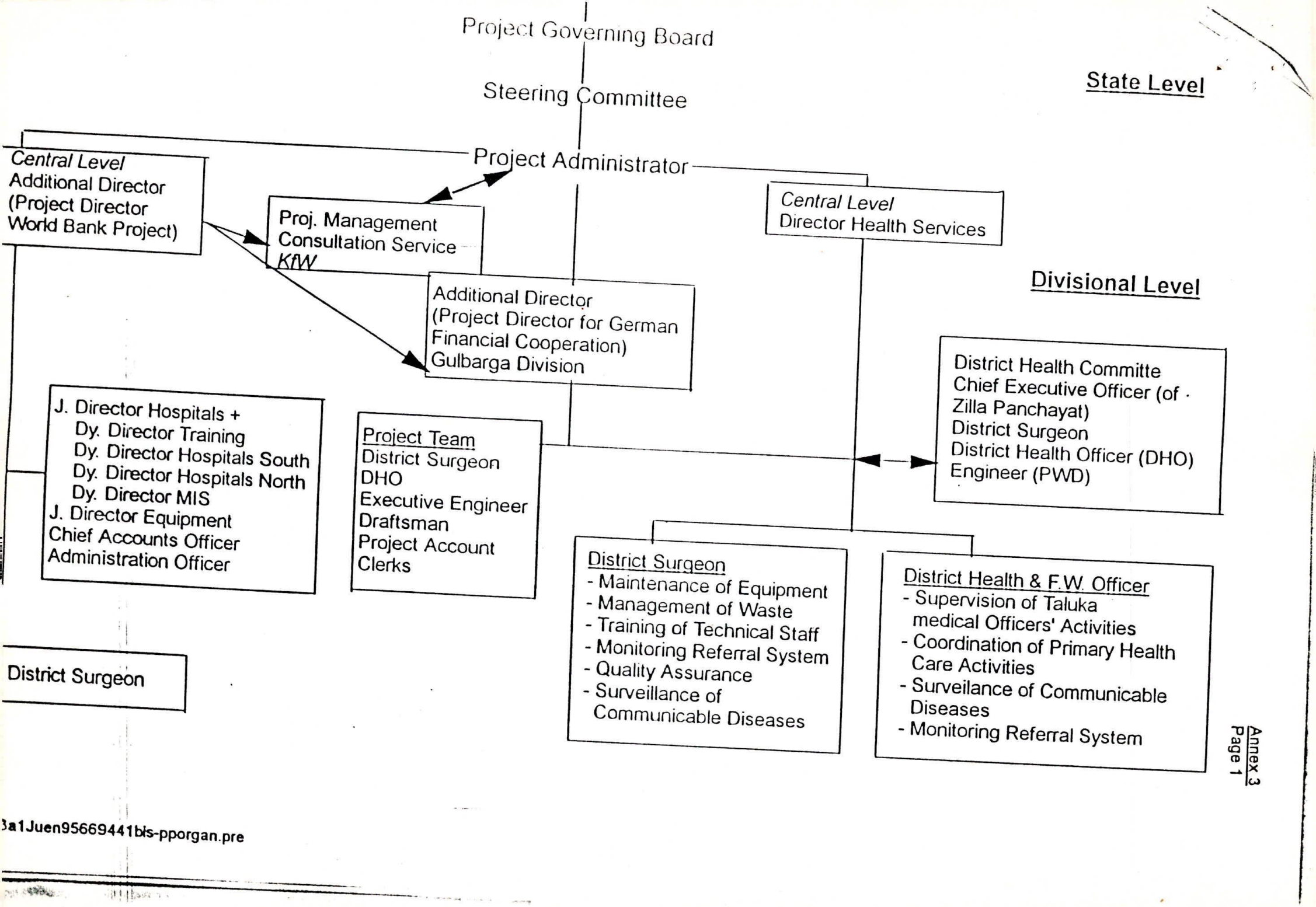
Specimen Annex III to the Request for replenishment No. ..... dated.....
(to be made up for each individual measure)

Loan/Financing Agreement No. | Designation of Project | Accounting period from ..... to .....

1	2	3	4	5	6	7
Current No.	Name and address of contractor	Date of contract	Description of commodity/ service	Invoiced amount, currency	Exchange rate	Date/type amount paid

Add sums of columns 5 + 7

Date .....Signature .....Authorized Party



Annex 3
Page 1

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PROJECT MANAGEMENT AND ORGANISATION

Project Governing Board (PGB):

Members:

Chief Secretary to the Government (Chairman)
Additional Chief Secretary, Finance
Secretary to the Government, Department of Planning
Secretary to the Government, Department of Public Works (PWD)
Secretary to the Government, Department of Health and Family Welfare (DOHFW), Project Coordinator
Additional Secretary, Karnataka Health System Development Project, Project Administrator
Director of Department of Health and Family Welfare
Representative of the Government of India from the Ministry of Health and Family Welfare

Responsibilities:

The PGB will meet twice a year.
Empowered to make major policy decisions and develop broad policy outlines of the project
Approve the annual budget
Authorise major project revisions
Ratify decisions made by the Steering Committee
Formulate rules and regulations
Delegates powers to the Steering Committee
Undertake an annual review of project implementation and monitor overall project progress

Steering Committee

Members:

Secretary to Government, DOHFW (Chairman and Project Co-ordinator)
Secretary II to Government, Finance
Additional Secretary, DOHFW
Director, Department of Medical Education
Director, Department of DOHFW
Joint Director, Hospitals
Additional Director, Strategic Management Cell, Department of Health
Chief Engineer, Design and Engineering Wing, DOHFW
Chief Architect, Design and Engineering Wing, DOHFW
Chief Accounts Officer, Department of Health
Additional Director of the Gulbarga Division
Consultant for the Gulbarga Division

Responsibilities:

- The Steering Committee will meet every two months
- Nodal body for project implementation
- Supervise and monitor project implementation
- Undertake planning activities
- Facilitate project management activities

Secretary DOHFW / Project Co-ordinator

Responsibilities:

- Co-ordination of the different activities of the two projects

Project Administrator

Responsibilities:
- Supports the Project Coordinator with the organisation of the implementation of the different activities of the two projects;
- Approves project expenses in co-ordination with the consultant to be realised in the Gulbarga Division, which exceeds the ceilings defined by the PGB and therefore cannot be approved by the Project Director.

Add. Director Project, Gulbarga Division:

Responsibilities:
- Supported by the project team and the consultant
- Reports directly to the Project Administrator
- In-charge of the day-to-day management
- Coordination of the technical assistance for the Gulbarga Division
- Approves project expenses in co-ordination with the consultant up to a ceiling still to be defined by the PGB

Project Team Gulbarga Division

Members:
District Surgeon of each District (in-charge of hospitals with 100 beds and more)
District Health Officers of each District (in-charge of hospitals up to 50 beds)
Executive Engineer
Civil Engineer, if necessary
Equipment Engineer, if necessary
Electrical Engineer, if necessary
Draftsman, if necessary
Project Account
Clerks
Public Works Department (only supervision)

Responsibilities:
- Reports directly to the project director
- Supervising and monitoring all the facilities to be renovated, extended and equipped

District Health Committee

Members:
Chief Executive Officer, Zilla Parishad
District Surgeon
District Health Officer
Superintending Engineer, PWD

Responsibilities:

- Facilitate the functioning of the referral system
- Collection and redistribution of the user charges
- Maintenance of equipment
- Waste management
- Training of technical staff
- Quality assurance

Project Management Consulting Services

Responsibilities:

- Supports the project director and the project team;
- Assist in the final design of the facilities and supervision of implementation;
- Co-ordinates the technical assistance with the Project Co-ordinator, Project Administrator and Project Director ;
- Approves project expenses in coordination with the project coordinator or project director depending on the amount;
- Sub-contracts local architects and engineers for detailed planning.

officer in charge: Ms. Jüngling
our ref.: Jün
extension: 3187
Date: 17.05.1996

L /a German Financial Cooperation with
DM 23 million financial contribution for Upgrading Secondary Level Hospitals in the Gulbarga Division
No.:

Separate Agreement dated
pertaining to the Financing Agreement dated

Pursuant to Section 3.4 of the above-mentioned Separate Agreement, the contract for shall be awarded on the basis of competitive bidding to independent, qualified consultants domiciled in the European Union. With reference to the negotiations on the above agreements we are gladly willing to assist you in selecting and contracting the consultants and during the performance of the consulting services. For this purpose we herewith conclude with you an

AGENCY CONTRACT

with the following provisions:

1. We shall ensure that the terms of reference to be presented by you for the services to be rendered by the consultants are supplemented, if necessary, or drawn up in the event that you consider yourselves not in a position to work out the terms of reference.

2. We shall carry out the procedure provided for in the Separate Agreement for the selection of the consultants on your behalf and submit the following proposals to you for approval:

   - definitive terms of reference for the consulting services including a draft consulting contract (KfW Standard Consulting Contract)
   - a short list of qualified bidders
   - a substantiated proposal for award of contract
   - the draft consulting contract negotiated with the consultants.

3. KfW has already got your approval on item 1 and 2. We shall inform you without delay about the outcome of the competitive bidding.

4. You hereby authorize us to conclude the consulting contract on your behalf. After concluding the contract we shall furnish you with one original of this contract.

5. After we have concluded the contract with the consultants and have sent you one original, the further execution and supervision of the contract shall rest with you. We shall continue to advise and assist you in this within the limits of our possibilities.

6. You hereby authorize us to make down and interim payments from the financial contribution to the consultants in accordance with the agreed disbursement procedure and the provisions of the consulting contract. This authorization shall be deemed a request for disbursement from the financial contribution. We shall disburse the final payment upon your explicit request for disbursement.

7. We shall not be liable for negligence on the part of the consultants and their agents in performing their assignment.

8. We shall carry out the measures specified in items 1 to 6 free of charge.

9. Amendments of, and additions to, this agreement shall be in writing. Article 5.2 of the Financing Agreement dated .....shall apply to this Agency Contract accordingly.

Kindly give your consent to the foregoing agreement by signing the enclosed copies in a legally binding manner and sending them back to us.

Yours faithfully,
KREDITANSTALT FÜR WIEDERAUFBAU

Read and agreed:

Memo for Progress Reports

The reports on the progress of the project to be submitted quarterly by the project-executing agency shall include at least the following points:

1. List of Project Measures
   (in accordance with the programme measures listed under Section 1.1 of the Separate Agreement)

   Detailed description of the activities undertaken and progress made in the period under review; any changes in planning, reasons for this.

2. Assignment of the Consulting Engineers

   Award of contract; kind of services rendered and activities of personnel assigned to the programme site.

3. Award of Contracts for Goods and Services

   Bidding procedure; deadlines; results and evaluation of bids; award of contract.

4. Goods and Services Provided
   (broken down according to the list of programme measures stated under item 1 above)

Supplies:	Kind and quantity, delivery dates, guarantees; acceptance at factory; acceptance at programme site.
Transport:	Kind and volume; duration; insurances; storage at construction site.
Construction:	Kind and scope of work; equipment; labour input; acceptance of work.

5. Adherence to Time Schedule

   Comparison of targets with actual values; reasons for changes in time schedule; description of effects on the progress of the programme.

State of Accounts and Disbursements

for the goods and services stated in the list specified under item 1 above.

7. Adherence to Cost and Financing Schedule

Comparison of targets with actual values; proposed financing of cost increases, if any.

8. Financial Situation of the Project-Executing Agency

Development of annual health budget of Karnataka, in particular with respect to the programme area.

State of Fulfilment of Conditions

It is recommended to use graphs to demonstrate the stages of deliveries and services and the development of costs (bar graphs or network plans). The progress reports are to be sent to KfW within four weeks after the end of the period under review.

10. World Bank Technical Assistance -Activities

Description of activities undertaken and progress made in the period under review.

Terms of Reference

Country: India

Project: Service Health Programme Karnataka

1. Background

KfW is financing the renovation and upgrading of 26 small and medium secondary healthcare facilities including the construction of 190 staff houses, construction and equipment of four workshop facilities as well as the supply of medical equipment in the Gulbarga Division in the State of Karnataka.

Simultaneoulsly, a World Bank Project concerning a similar scope will be implemented in all other divisions of the State of Karnataka. The World Bank project covers additional services especially in the field of strengthening the management of healthcare services and upgrading of clinical, technical and management skills of hospital staff covering the whole state (including the Gulbarga division).

An external management team shall support the Government of Karnataka in the detailed planning of the project, the elaboration of the bidding documents and the evaluation of the bids, the supervision of procurement and construction as well as in the overall project implementation. The civil and engineering works will be based on previously prepared construction drawings based on existing standards which are being adapted to local conditions by local architects. The supply for the project includes vehicles, medical equipment and other medical supplies.

2. Scope of Services

2.1 Overall Project Management

- Elaboration of the overall project report in respect of time schedule and project budget.
- Elaboration of yearly work plans and project budgets to be submitted to and approved by KfW.
- Supervision of overall project implementation in respect of time schedule and project budget.
- Participation in essential project management meetings held by the DOHFW.
- Participation in the project progress review missions of the World Bank.
- Assistance to the Project Director in maintaining the coordination of the technical assistance provided by the World Bank in the Gulbarga Division.
- Monitoring of the contribution of the government of Karnataka in respect of:
  - the increase of the number of specialist doctors,
  - the increase of the operational budget especially for drugs and maintenance,
  - the sanctioning fo additional staff for hospitals which are upgraded,
  - the implementation of the cost sharing system and of the guidelines for the utilisation of collected fees within the hospital.
- Assessment of indicators which have been agreed upon with the government of Karnataka such as:
  - Number of outpatients treated;
  - Hospital bed occupancy rate;
  - Average length of stay per inpatient;
  - Number of hospital deliveries;
  - Number of surgeries adequately performed;

- Number of laboratory tests;
- Number of X-rays;
- Availability of medical drugs (% of norms);
- each hospital included in the project measures, manages an adequate budget including a maintenance component of a minimum of 3.5% of the equipment costs and of 1.5 % of the physical infrastructure (at current prices).

2.2 Assistance in Project Planning

Construction and Engineering Works:

- Review of the design and engineering drawings prepared by local architects and engineers as well as assistance in the final design of each health facility (including staff houses and workshops) to be upgraded or built.
- Obtaining all necessary approvals necessary for the implementation of the project.

Supply of medical equipment:

- Preparation of the final list of procurement including all supply categories (vehicles, medical equipment and other medical supplies) for the project period of three years.
- Determination of quantities delivered to each of the districts per year.
- Preparation of specifications for the medical equipment and medical consumables.
- Cost estimations for each supply category and elaboration of budget schedule.
- Elaboration of procurement procedures and logistic framework for each of the supply items.

2.3 Project Implementation

a) Methods of Tendering

The methods of tendering will be based on the procurement guidance of KfW for local competitive bidding which includes the following steps:

- Notification (prequalification)
- Issue of bidding documents (terms of bidding, terms of contract, quantity and quality of supply)
- Submission of bids
- Public opening of bids
- Evaluation and selection of lowest evaluated bid based on qualification criteria
- Contract award
- Contract performance

b) Assistance Services

Construction and Engineering Works:

- Review of work drawings/details and relevant documents necessary for the bidding document.
- Review of the specifications for all buildings and engineering works, external works and landscaping.
- Review of all tender documents (condition for bidding and terms of contract).
- To submit the first tender package, which should serve as a model document to be followed by the project authorities, to KfW for approval.
- Evaluation of the local companies/firms participating in the prequalification and short listing of the firms to be invited for tender.
- Evaluation of tender by assessment of bidder, bidder track record and tender price analysis
- Preparation of contract documents.

- Proposals for the award of contracts.
- Introduction of the maintenance concept according to the agreements reached between GoK and the World Bank.

Supply of equipment

- Preparation of tender documents and definition of bidding procedures in accordance with the World Bank regulations.
- Evaluation of bids with respect to technical and financial aspects.
- Submission of proposals for the award of contracts..

2.4 Monitoring of Project Implementation

Construction and Engineering Works

- Supervision by review of the construction programme and all relevant contract documents.
- Approval of drawings, specifications and work schedule prepared by the contractors.

Supply of equipment

- Monitoring of execution of contracts including provisional and final acceptance.

2.5 Verification of Payments

- Verification of all project payments related to project implementation (consulting, design, construction, engineering services, equipment, initial supply and vehicles). All payments for construction work already undertaken in accordance with the agreement reached between GoK and KfW for retroactive financing of urgently needed repairs up to an amount of DM 50.000 (not exceeding a total of DM 500.000) shall be verified by the consultant.
- Verification of the project account and the request for replenishment of the project account.

2.6 Assistance by the District Health Committee

The Division Project Team will be assisted by the District Health Committee which will be appointed by the Government and will be in charge of:

- Certification of all tender evaluation,
- Certification of contracts to be awarded for construction and engineering works,
- Certification of contracts to be awarded to suppliers,
- Certification of all payment released to contractors,
- Overall monitoring of project progress and elaboration of quarterly project reports which shall reflect the overall project progress including the following topics:
  - Budget utilisation,
  - contribution of the Government of Karnataka,
  - progress of components of the world bank project within the Gulbarga division.

3. Execution of Project Management

The international consultant has to ensure permanent presence in the project in the Gulbarga Division with the Head Quarter in Gulbarga for the project period and shall monitor the project sites regularly. To optimise the project execution, it is recommended that the international party will nominate a local consulting or design company which will assist the international party in the project execution.

GOV-2.

Annexure I

Minutes of Meeting

German Financial Co-operation with India

Project: Upgrading Secondary Level Health Care Facilities in the Gulbarga Division, State of Karnataka, India, Phase I

The representatives of the Governments of India and Karnataka, consisting of Ms. Shailaja Chandra, Additional Secretary, Health, Government of India (GoI), Mr. B.K. Bhattacharya, Additional Chief Secretary and Principal Finance Secretary, Government of Karnataka (GoK) and Mr. Gautam Basu, Health Secretary, GoK visited Frankfurt from February 5 to 7, 1996, to discuss the final details for the preparation of the above mentioned project.

The KfW-team consisting of Mr. Heidt, Ms. Jüngling and Ms. Witt would like to express their sincere gratitude to the representatives of the Governments of India and Karnataka for the fruitful discussions and the excellent co-operation.

Reference is made to:

- The project proposal for German Financial Cooperation with India of the Department of Health and Family Welfare, Government of Karnataka, May 1994.
- The Final Project Proposal of the Department of Health and Family Welfare, Government of Karnataka: Upgrading Secondary Level Health Care Facilities in the State of Karnataka India, July 1995.
- The minutes of meetings of June 13, 1995 and of October 21, 1995.
- State Health Systems Development Project II, India, Staff Appraisal Report, January 23, 1996, World Bank.

The minutes of meeting summarise the main findings and records the understanding reached with the Ministry of Health, GoI, Finance Department and Department of Health and Family Welfare (DHFW), GoK. They are subject to the approval of the management of KfW, the German Government, the Government of India and the Government of Karnataka.

1. Project Rationale

The GoK has substantiated the availability of adequate primary health care services for justifying a specific project on secondary level health care services as follows:

Since the last decade, priority has been given to the primary health care level. The preventive care has been carried out to a satisfactory extent. For instance, the Pulse Polio Programme reached almost 100 % coverage rate in the Gulbarga Division in 1995. Furthermore, special programmes are implemented in this area in order to reduce the regional imbalances.

Recruitment procedures have started in the Gulbarga Division and in Bijapur District to fill up 400 additional posts of Auxiliary Nurse Midwives (ANM) in the newly created Sub Centres. There are still some vacancies with regard to paramedical staff. All posts for medical doctors at the Primary Health Centres have been filled. Up to 1995, 1.200 doctors have been contracted by DHFW in the State.

In the Health Sector Policy Development Programme of Karnataka (see Annex 1) it is envisaged that the problem of mismatching of medical staff will be solved in due course and that doctors, especially lady doctors will be recruited on contract basis for special health check-up camps for women. These services of private lady doctors will be enlisted whenever necessary.

With regard to sustainability, the GoK has developed a scheme for decentralisation of administrative and financial authority from the DHFW to divisions and districts. Certain para-medical staff for public health care activities can be recruited at district level. Revenues from user-charges will be redistributed directly to the health facilities via the District Health Committee.

2. Project Approach

The KfW will ask the German Government to provide a grant (to be passed on to GoK also as grant) of up to DM 23 millions in order to implement the first phase of the above mentioned project. The project will support the GoK in further improving the health status of the rural population in the Gulbarga Division and will form an integral part of the Karnataka Health Systems Development Project funded to a large extent by the World Bank (WB). The financial contribution by KfW will mainly cover the rehabilitation and the up-grading of 26 rural secondary level health facilities in the Gulbarga Division. The WB will fund similar projects in the rest of the State of Karnataka and will provide technical assistance for the whole State. This approach enables to strengthen the organisational structure of preventive and curative aspects of health care by integrating primary health care services with first referral hospitals. Additionally the GoK through the WB assistance envisages to increase access to primary care services among Scheduled Castes and Scheduled Tribes (SC/ST) population and women in the Gulbarga Division.

3. Project Aim

The overall project aim is to improve the health status of the rural population in the Gulbarga Division, especially women and children, by reducing infant mortality and the mortality rate of mothers and children. The project aim is the improvement of quality and efficiency of the secondary level health care facilities in the socio-economically backward project area.

By the second year after completion of the technical assistance provided through the World Bank, the project aim will be measured by the following indicators:

- Number of outpatients treated;
- Hospital bed occupancy rate;
- Average length of stay per inpatient;
- Number of hospital deliveries;
- Number of surgeries adequately performed;
- Number of laboratory tests;

- Number of X-rays;
- Availability of medical drugs (% of norms);
- each hospital included in the project measures, manages an adequate budget including a maintenance component of a minimum of 3.5% of the equipment costs and of 2.5 % of the physical infrastructure (at current prices).

The baselines and targets of the indicators have to be defined for each type of hospital latest one year after beginning of the project and have to be provided prior to the first annual review.

4. Project measures and costs

The project compromises the following measures, at the estimated costs so far calculated:

	Costs (1)	GoK (2)	Financial Contribution (3)	% of costs (1) to total project costs (4)
Rehabilitation of Secondary Level Health Institutions	**11,7**	**1,5**	**10,2**	**41%**
a) Construction	7,0		7,0	24%
b) Medical Equipment, Medicines	4,3	1,5	2,8	15%
c) Vehicles	0,4		0,4	1%
Rehabilitation of two District Hospitals	**1,1**		**1,1**	**4%**
Maintenance Facilities	**1,3**	**0,9**	**0,4**	**5%**
Waste Disposal Facilities	**0,9**	**0,1***	**0,8**	**3%**
Management-Information-System and Surveillance	**0,2**	**0,2**		**1%**
SC/ST/Women	**0,8**	**0,8**		**3%**
Salaries	**1,8**	**1,8**		**6%**
a) Hospital Staff	1,6	1,6		5%
b) Maintenance, Waste Disposal	0,2	0,2		1%
Project Management	**4,2**	**0,4**	**3,8**	**14%**
a) Consultant Services	1,5		1,5	5%
b) Fees for design	0,5		0,5	2%
c) PMC	2,2	0,4	1,8	7%
Price and Physical Contingencies	**6,7**		**6,7**	**23%**
Price Contingencies	3,7		3,7	13%
Physical Contingencies	3,0		3,0	10%
TOTAL	**28,7**	**5,7**	**23,0**	**100%**

* Including DM 50.000 for salaries.

The general administration costs of the DHFW of Karnataka, the DHOs and administration of the health institutions in the Project area will not be financed from the Financial Contribution.

The Financial Contribution covers the following components:

- rehabilitation and adequate equipment for 7 secondary level health care facilities;
- rehabilitation, up-grading and adequate equipment for 19 secondary level health care facilities, a total of 627 additional beds;

- construction of 190 housing units for medical personnel;
- construction of waste disposal facilities for each of the considered hospitals;
- initial basic provision of medical goods;
- construction and equipment for four equipment maintenance facilities, including four vehicles;
- 21 emergency vehicles;
- renovation and equipment for the two district hospitals Bidar and Bellary which cannot be postponed to the second phase;
- consulting services to support the Project Director and his team for the implementation of above mentioned measures

5. Budget Allocations for the Health Sector and Incremental Costs (Sustainability)

GoK agreed upon, that the share of non-plan and plan budgetary allocations to the health sector relative to the overall plan and non-plan budget of the state is, at least, maintained each year at the Fiscal Year 1994 level; shares of the primary and secondary levels in the total resources (plan and non-plan) allocated for the health sector would be increased each year until the year 2002; reduce the existing regional imbalances in favour of the underdeveloped districts and tribal areas (including all districts in the Gulbarga Division); sufficient resources for drugs, essential supplies and maintenance of equipment and buildings are allocated at first referral hospitals in accordance with the agreed norms (see also Annex 1, Para. 1, 2 and 3).

Incremental recurrent costs after project completion including contingencies are expected to be about Rs 100 million in the Gulbarga Division. The GoK commits itself to take over all the recurrent costs arising from improvement of standards according to Government norms for existing as well as additional beds.

Although the budgetary targets are necessary and achievable, they are still not sufficient. Taking into account the growth of population, further effort is required which cannot be covered by the Government alone. GoK ensures, that user-charges are implemented more rigorously. In order to improve the existing system, KfW will fund a study aimed at analysing the existing cost sharing systems and proposing improvements on an operationalised level as soon as possible (WB has been informed by GoK). This study may be completely financed out of the Study and Expert fund. KfW recommends the involvement of an international consultant coming, for instance, from the London School of Tropical Medicine and Hygiene which has been working for years in the research of cost sharing systems all over the World. The GoK shall implement, on the basis of the findings of this study, an operational cost sharing system.

6. Project Organisation and Implementation

A European consultant shall support the Government of Karnataka (GoK) in the implementation of the project. Instead of direct hiring of this consulting firm by the GoK, it is agreed upon, that the consultant shall be selected by KfW on behalf of GOK, on the basis of an Agency Contract. The consultant shall review the previously prepared technical documents and assist in the final design of the hospitals, the final lists of procurements, preparation of tender documents for construction, evaluation of bids, proposals for the award of contracts, drafting contracts, commissioning of deliveries and supervision of construction and implementation. He/she will be permanently based in the State of Karnataka and may sub-contract specific services with local firms. Furthermore the consultant shall assist the Project Director in maintaining the coordination of the technical assistance provided by the World Bank in the Gulbarga Division. The preliminary ToRs for the consultants are attached in Annex 2.

KfW will submit to GoK the detailed draft ToRs for comments and approval. The KfW will start with the pre-qualification and short-listing of consultants in February 1996.

The organisation of the project is specified in Annex 3. The consultant shall be a member of the Steering Committee. GoK will delegate authority required for day-to-day managment to the Project Director within the first six months after the beginning of the project. The Project Director will than be able to authorize project expenses up to an amount still to be defined for different activities, in coordination with the consultant. Project costs exceeding these limits shall be countersigned by the project administrator and the consultant. The GoK shall pay the salaries of the project team.

The proposals for preliminary and final design (incl. tender documents etc.) of the hospitals shall be drawn by local architects and engineers, directly hired by the GoK. Before tendering, they will be reviewed by the European consultant. The construction work shall be supervised by local architects and engineers sub-contracted by the European consultant. The contractors shall be selected through competitive bidding for lots of at least DM 300.000.- The first tender package will require to be previously reviewed and approved by KfW and should serve as a model document to be followed by the project authorities with the concurrance of the consultant.

The procurement of goods shall be carried out in accordance with the WB regulations as mentioned in the Staff Appraisal Report of January 23, 1996.

7. Maintenance Centres and Waste Disposal Units

The maintenance centres and the waste disposal units will be established according to the agreements reached between GoK and WB (see Annexes 4 and 5).

8. Retroactive Financing

As the project shall form an integral part of the Karnataka Health Systems Development Project, the project measures envisaged for the secondary level health care facilities in the Gulbarga Division shall start at the same time. Therefore, KfW agrees on retroactive financing of such project costs occuring after December 1995 provided these cost have been incurred based on the agreed final design (see Para. 5). Retroactive financing will be acceptable for planning/designs and urgently needed repairs up to an individual amount of DM 50.000 and should not exceed a total of DM 500.000 provided the works are executed in accordance with the prescribed procedures of the State Government. With beginning of the project the consultant shall approve these expenditures made by GoK prior to refunding

9. Disbursement Procedures of Funds

The Financial Contribution shall be transferred to the Government of India (GoI) who will pass on the funds to the Ministry of Health and Family Welfare, Karnataka, without any delay. If delays occur it will be the responsibility of the GoK to demand a quick transfer of funds from GoI. Advanced disbursement will be made under the Disposition Fund Procedure. For this purpose a special account will be opened in the name of the Department of Health and Family Welfare, GoK. GoK would request an initial deposit into this account up to an amount covering the average fund requirements for three months. KfW would reimburse the respective amount

on the basis of the presentation of evidence of the use of funds, together with the submission of requests for replenishment.

10. Pre-Requisites for disbursement

1. The above mentioned project management team has to be staffed before the beginning of the project.

2. Government orders have been issued providing authority to the DHFW to manage essential operational activities including civil works construction and maintenance activities.

3. GoK shall provide KfW an implementation schedule for the various project measures including the number of posts to be sanctioned and filled up each year during the project period.

11. Agreements Reached

1. GoK agreed upon that the share of non-plan and plan budgetary allocations to the health sector relative to the overall plan and non-plan budget of the state is, at least, maintained each year at the Fiscal Year 1994 level (see also Annex 1, Para. 1);

2. Shares of the primary and secondary levels in the total resources (plan and non-plan) allocated for the health sector would be increased each year until the year 2002 (see also Annex 1, Para. 2);

3. Reduce the existing regional imbalances in favour of the underdeveloped districts (including all districts in the Gulbarga Division) and tribal areas (see also Annex 1, Para. 3);

4. Sufficient resources for drugs, essential supplies and maintenance of equipment and buildings are allocated at first referral hospitals in accordance with the agreed norms.

5. The GoK shall delegate to the Project Director adequate power to decide on project expenses with the approval of the consultant up to an amount determined latest half year after the Project has been sanctioned.

6. GoK shall provide KfW in cooperation with the consultant an annual work plan setting forth the respective activities under the project to be carried out during the prevailing fiscal year including the budgetary allocations to be made available for such purposes.

7. The GoK shall submit to KfW for its review and approval the procurement plans with regard to the Gulbarga Division.

8. For purposes of enhancing the quality of health care services under the Project GoK shall: (i) maintain the key headquarters personnel appointed for purposes of implementing the Project; (ii) appoint and thereafter maintain key additional personnel with adequate qualification and experience; (iii) adopt, no later than six months after completion of the physical improvements in any hospital under the Project, and thereafter implement, staffing and technical norms acceptable to the KfW

9. A minimum of 3.5 % of the equipment costs per year and 2.5 % of costs for the physical infrastructure shall be provided as a maintenance budget.

12. Project Phase II

A second project phase will include the rehabilitation and equipment of the remaining secondary hospitals. This phase shall be appraised by KfW during the second year of the first phase (approx. May 1997) and implementation should start approx. in the beginning of 1998. It should be completed within three years. The type of the Financial Assistance (grant or soft loan) to be made to the GoK by the German Government shall be determined after the appraisal.

Frankfurt, February 7, 1996

Mr. B.K. Bhattacharya
Additional Chief Secretary
Principal Secretary, Finance Department
Government of Karnataka

Mr. Gautam Basu
Secretary to Government of Karnataka
Health and Family Welfare Department

Mr. Heidt
Vice President
South Asia and Central Asia
KfW

HEALTH SECTOR DEVELOPMENT PROGRAM

Karnataka

Issue	Effect	Proposed Change or Action
1. Adequacy of the overall size of the health budget to meet public health goals.	The share of the health and family welfare sector is about 6.43% of the state revenue budget and 1.29% of GDP in 1993/94. These health expenditures are inadequate to provide essential primary health care together with a basic package of clinical/curative services.	Recognizing the link between basic public health provision and poverty alleviation, the Government will ensure that, in each fiscal year, during implementation of the project, the share of overall budget (plan and non-plan), excluding all projects specifically financed either through external assistance or by way of loan from national financial institutions or by way of grant/loan from Government of India as per award of Tenth Finance Commission, allocated to the health sector shall be maintained at least at the level allocated in FY94/95.
2. Imbalances in public expenditure between different levels of the health sector.	With increasing expenditure on tertiary level health care, there has been a relative decline in the investment in primary and secondary level facilities. This imbalance needs correction.	The state Government recognizes the need for focusing attention on the primary and secondary levels of health care and also to step up allocations for these levels. A major portion of the increased allocation will go to the primary and secondary levels.
3. Redressing regional imbalances.	The six districts of Gulbarga, Bidar, Bijapur, Raichur, Dharwad and Bellary show poor health indicators due to uneven development in the health infrastructure and delivery of services.	Through both project as well as non-project interventions, a policy of positive discrimination in favor of the underdeveloped districts and tribal areas within advanced districts will be followed to reduce the existing imbalance. This differential policy is already under implementation. Additional resources are being provided out of the state's own funds for filling critical gaps in primary health care.
4. Quality of and access to hospital services.	Quality of medical services are inadequate. In addition, access to health care services is limited, especially for populations in the	Quality and access will be improved by: (i) upgrading and expanding physical capacity; (ii) upgrading clinical effectiveness

Karnataka (continued)

Issue	Effect	Proposed Change or Action
	least developed areas of the state, particularly women, scheduled castes and scheduled tribes.	and quality of services at community, talauka and district hospitals; (iii) improving the referral system; and (iv) adopting staffing and technical norms in line with the recommendations of the high level committee. In respect of scheduled caste and scheduled tribes, access will be improved through a system of health cards and annual health check-ups. Patients below the poverty line who cannot afford high cost treatment for serious ailments such as oncologic and cardiac disorders, will be assisted through a specially constituted society, to be financed by the state Government.
5. Strategic planning.	Inadequate strategic planning capacity in the health sector has resulted in sub-optimal use of resources. Decisions on public health spending priorities presently do not take into full consideration the size and scope of services provided by private, commercial and voluntary sectors, the health manpower supply situation and the predicted future epidemiological profile in Karnataka.	The capacity for strategic planning will be enhanced through establishment of a Planning Cell directly reporting to the Secretary Health and Family Welfare. This will, either independently or through sponsored specific research projects: (i) study the role of the private sector; (ii) review the suitability of present regulations; (iii)study the evolving epidemiological profile in Karnataka; (iv) monitor the burden of disease and recommend cost-effective means for achieving the best use of limited resources; and (v) undertake periodic review of the health manpower supply situation and training needs in the state. A study of the scope and prospects of enlisting private sector support for promotion of health care at primary and secondary levels will be undertaken.

Karnataka (continued)

Issue	Effect	Proposed Change or Action
6. Workforce.	Improvement of services at hospitals is significantly restricted by workforce problems, both in terms of quality and quantity. The number of staff sanctioned at hospitals does not fit current needs. There are many vacancies due to poor and cumbersome recruitment procedures, and unimaginative personnel policies. The distribution of medical specialists is not commensurate with the need (e.g., a general surgeon in place of an Obstetrician and Gynecologist).	No ban on recruitment will be imposed with regard to recruiting medical, paramedical and technical staff. In a short period the problem of mismatching in medical staff will be solved. The practice of deputing staff to non essential assignments will be put to an end. Doctors will be recruited on contract where direct recruitment is slow. Doctors will also be asked to serve a mandatory period of six years in rural areas before being considered for postings at more preferred places. Since there is a large number of lady doctors' vacancies, participation by private lady doctors in government facilities will be encouraged.
7. The role of the private sector and voluntary organizations.	The health services development strategy of the Government has not taken sufficient account of the scope and coverage of non-Governmental providers and the role of this sector in delivering quality health care.	Legislation will be introduced to regulate all medical institutions. Services offered in the private sector would be continuously monitored, with a view to improving the quality of such services. Referrals between private primary care and public secondary care, diagnosis and treatment would be encouraged through district health committees.
8. Role of the NGO sector.	NGO participation in health care at all levels, especially at the levels of public health and first referral, needs to be supported and encouraged, with a special focus on the backward and remote regions of the state.	The Government will take initiative in enlisting the effective participation of NGOs in the area of primary and first referral health care. In remote tribal and backward districts, NGOs will be encouraged to operate some government facilities so as to ensure the outreach of health services to the disadvantaged

Karnataka (continued)

Issue	Effect	Proposed Change or Action
		sections of the people. NGO participation will also be encouraged in special programs for the socially underprivileged, as also in IEC activities.
9. Cost sharing and service improvements.	Cost sharing has not been properly implemented, resulting in low levels of funding for supplies, operations and maintenance.	The Government will set up a working group to examine the issue of cost sharing (last revised in 1988) while protecting the poorest sections of society. The guiding principle for cost sharing would be to partly cover non salary recurrent costs. In addition, adequate administrative and organizational mechanisms for implementing schemes for cost sharing would be put in place. A mechanism to give back a major portion of revenues raised by the institution will be introduced.
10. Prevention and control of major communicable diseases.	The existing surveillance system is very weak, especially at the secondary level and in urban areas.	The project will establish an effective surveillance system which will contribute to reducing morbidity and mortality rates due to major communicable diseases.
11. Contracting services.	Contracting services are under-utilized.	DOHFW will monitor the cost-effectiveness and quality of existing contracted services. Furthermore, the Government will consider new proposals for contracting-out health services, especially support services such as laundry, cleaning, manufacturing I.V. fluids, etc.
12. Safeguarding the operations and maintenance component of the health budget.	The existing secondary hospitals face operational deficiencies and function poorly due to a lack of non-salary recurrent funds.	The state Government will make adequate provision in the health budget for drugs and other medical supplies, and for maintenance of equipment and buildings.
13. Consolidation versus expansion of institutions.	The state Government has been rapidly expanding the number of	Further expansion of beds and hospitals will be strictly need-

Karnataka (continued)

Issue	Effect	Proposed Change or Action
	subcenters, PHCs, CHCs, taluka level hospitals, and sub-district hospitals without focusing on improving the physical facilities in existing institutions.	based, and will be undertaken only after ensuring that existing facilities are properly maintained and utilized.
14. Poverty alleviation.	About 40% of households are below the poverty line in Karnataka. In this group, health indicators such as mortality and morbidity rates, are especially adverse.	The investment made in this project, especially through special programs for the disadvantaged section (e.g., SC/ST and women) will aim at augmenting the productivity/earning potential through better health status.

HEALTH SECTOR DEVELOPMENT PROGRAM

Punjab

Issue	Effect	Proposed Change or Action
1. Increase the overall size of the health budget.	Expenditure on health and family welfare in Punjab is 5.31% of the state revenue budget and 0.88% of NDP in 1993/94. These health expenditures are inadequate to provide essential primary health care together with a package of curative services.	Recognizing the link between the provision of basic health services and poverty alleviation, the state Government will ensure that in each fiscal year during implementation of the project, the share of overall budget (plan and non-plan), excluding all projects specifically financed either through external assistance or by way of loan from national financial institutions, or by way of grant/loan from the Government of India as per award of Tenth Finance Commission, allocated to the health sector, shall be maintained at least at the level allocated in FY94/95.
2. Allocate most of the incremental funds for the health sector to primary and secondary levels of care.	Primary and secondary levels of health care have not been receiving the requisite allocation of funds. This has resulted in a shortage of drugs, machinery equipment, other materials and supplies, lack of proper buildings and poor maintenance of facilities. Imbalance in the allocation of funds has led to duplication of services and inefficient utilization of meager resources.	Punjab state, pursuant to the health sector reforms, will ensure that within the allocations for the health sector, the share of resources for primary and secondary levels of health care shall be increased in each fiscal year until FY02.
3. Safeguard the operations and maintenance component of the health budget.	The existing secondary level hospitals function poorly because of inadequate allocation of funds for operational and maintenance purposes (30%-35%). 65-70% of the current budget goes to the salary component.	Taking into account the budgetary provision, the state Government and Punjab Health Systems Corporation will maintain sufficient funds in the non-plan health budget for making available adequate supplies of drugs and other material supplies at secondary level hospitals, and for maintenance of equipment and buildings.

Annex 2

OUTLINE SCOPE OF SERVICES FOR THE PROJECT MANAGEMENT CONSULTANT

1. BACKGROUND

An external management team shall support the Government of Karnataka in the detailed planning of the project, the elaboration of the bidding documents and bidding evaluation, supervision of procurement and construction as well as in the overall project implementation.

2. SCOPE OF SERVICES

2.1 Assistance in Project Planning

Review of detailed design of each hospital project to be upgraded.

Review of equipment and initial supply list which will be purchased for each of the hospital project.

Evaluation of the overall project report in respect of project schedule and project budget.

2.2 Assistance in the Tender Process

Assistance in the elaboration of bidding document and tender evaluation for all tender categories.

Assistance in the evaluation of tender.

Verification of tender evaluation.

2.3 Monitoring of Project Implementation

Supervision of project implementation in respect of quality and quantity of all services related to the upgrading of facilities.

Supervision of overall project implementation in respect of time schedule and project budget.

2.4 Verification of Payments

Verification of all project payments related to the project implementation (consulting, design, construction, engineering services, equipment, initial supply and vehicles). All payments for construction exceeding IR 2.5 million (equivalent to DM 100.000) shall be verified by the consultant.

Verification of the project account and the request of the replenishment of the project account.

2.5 Overall Project Supervision

Participation in essential project management meetings held by the DHFW.

Participation in the project appraisal missions of the World Bank.

Elaboration of quarterly project report which shall reflect the overall project progress inlcuding the following topics (Budget utilisation, contribution of the Government of Karnataka, staff sanctioning, cost sharing activities, progress of components of the world bank project within the Gulbarga division.)

3. EXECUTION OF PROJECT MANAGEMENT

The project management consultant shall provide a permanent establishment at the project office of the Government at the Gulbarga Division and regular monitor the project sites.

4. SELECTION OF THE PROJECT MANAGEMENT CONSULTANT

The project management consultant will be jointly selected by KfW and the Government of Karnataka. The final terms of reference will be based on the above scope of services (item 2).

MANAGEMENT AND MAINTENANCE SYSTEMS FOR EQUIPMENT AND BUILDINGS FOR FIRST REFERRAL FACILITIES

I. Management and Maintenance of Equipment

Karnataka

The authorities responsible for Government health services in Karnataka State recognise that the quality of these services has come to depend increasingly not only on the availability of appropriate medical and nursing skills, but also on the efficacy and reliability of the medical equipment provided. In spite of its high and rising cost, medical technology is widely mismanaged in health care. In the State, there is a severe shortage of suitably trained, experienced technical personnel in the healthcare technical services. Frequently this dearth of technical staff, coupled with the lack of knowledge and inexperience in practical matters of the medical and technical staff employed, contributes directly to the breakdown and reduction in the operating life of expensive and essential equipment. The main problems encountered arise from:

- improper equipment selection and procurement policies resulting in the introduction of inappropriate or inferior quality equipment;
- inadequacies in maintenance and repair arrangements; and
- insufficient training of equipment users.

The State is persuaded that proper management of equipment involves firstly ensuring that the funds allocated for purchase, installation and maintenance are spent to the best advantage; and secondly, establishing and supervising the various services required for the effective, safe and efficient use of equipment over a reasonable life time. To meet these objectives equipment management will be accorded high priority.

Through the Health System Project the State proposes to establish a good equipment management and maintenance system that will result in:

- reduction of numbers and frequency of breakdowns;
- prolonged life of the equipment;
- improved quality of health care delivery services; and
- assured safety of users and patients.

The existing Health Equipment Repair and Maintenance Unit in the Directorate is inadequate when compared to the vast range of equipment spread all over the State. There are only nine persons under the Health Equipment Officer. There is only one X-ray technician, two semi-skilled artisans and one X-ray darkroom assistant. The remaining five are either administrative cadre or Group D staff. The following paragraphs describe the objectives and organisation of the equipment management and maintenance setup, the training requirements of medical, paramedical and technical staff, and requirement of funds for establishing an efficient and better management of equipment maintenance system.

The objectives of the revamped system will be:

1. To provide expert technical services and advice on the purchase of equipment, spares, service contracts etc.;

2. To procure, install, commission, maintain and service biomedical and other hospital equipment for patient diagnosis, monitoring, therapy and care;

3. To maintain and service heating, ventilation, air conditioning (HVAC) systems, power systems etc.;

4. To carry out minor maintenance works related to buildings, electrical & sanitary fixtures;

5. To organise training programmes for biomedical technicians and users;

6. To modify existing equipment if necessary (with appropriate safeguards), in response to operational and/or clinical needs; and ,

7. To maintain records for administration and management purposes.

Professional management of the system will ensure that there is no procurement of obsolete systems which may prove to be ineffective and uneconomical, involving huge operational costs. Other shortcomings such as inadequate radiation protection, uneven load distribution, noise and vibration level of equipment, lack of temperature and humidity controlled environment, electrical leakage, explosion hazards due to gases etc. will also be avoided.

It is also proposed that proper maintenance of reporting and records system will be designed and installed. Records would contain the status of the equipment, inspections undertaken, repair works carried out and costs incurred. Safety inspection tours will be regularly undertaken.

Organisation

The Equipment Management Unit at HQ-level will be under the Additional Directors (Health Systems) and will be headed by a Joint Director (Equipment) who will have functional autonomy and a specifically allocated budget for procurement and maintenance. The Unit will be responsible for maintaining the equipment in all the Government hospitals in the State. It will be organised as a three-tier system with Head Quarters and Central Workshops at Bangalore; Hospital Engineering Units and Mobile Engineering Units at each district hospital. The Mobile Engineering Unit will be under the control of the District Hospital Engineering Unit and will be responsible for maintaining the equipment in all the hospitals in the district. The District Hospital Unit will report to the District Surgeon for administrative purposes. For planning and technical guidance, the District Hospital Engineering Unit will be supervised by the Dy. Director (Health Equipment).

The Dy. Director (Training) will organize training programmes for medical, paramedical and technical staff. The training will cover not only use of but simple maintenance procedures such as replacement of fuses, replacement of gaskets, topping up with oil in hydraulic equipment etc. One Dy. Director (Equipment) will look after the equipment needs of hospitals under the jurisdiction of the Director of Medical Education and the other Dy. Director (Equipment) will look after the equipment needs of hospitals under the Director, Health & FW Services. The Dy. Director (Transport) will be responsible for planning for procurement, of vehicles and select private garages in each Taluka to repair all the vehicles of the department in that Taluka.

The districts have been classified into four categories (A-D) on the basis of the number and size of hospitals. Bangalore Urban and Rural Districts are treated as one and fall into Category A. Looking at the large number of big hospitals, Bangalore requires three District Hospital Engineering Units. Three Districts, Chitradurga, Dharwad and Mysore fall under Category B, and each of these districts needs two District Hospital Engineering Units. The District Hospital Engineering Units in these districts will be placed in different large Hospitals. Eight Districts fall under Category C and seven under Category D. Table 1 (attached) gives the details of the hospitals to be maintained by the Unit in each district; and Tables 2 & 3 (also attached) give details of the proposed facilities and staffing of the different sections/workshops.

The annual wage bill at the end of the project period is estimated at Rs. 23.50 million and over the project period at Rs. 82.25 million. The capital cost of setting up the maintenance facility is estimated at Rs. 23.56 million for civil works, Rs. 53.48 million for machinery and equipment and Rs. 8.75 million for vehicles.

Procedures for maintenance and repair

At an early stage of setting up of the Equipment Management and Maintenance Unit, an inventory will be taken of all medical equipment and instrumentation throughout the system. The list thus obtained will become the basis to determine the requirements for services. A format for the inventory records and for the maintenance and repair of equipment will be also prepared.

The each maintenance and repair workshop will maintain a card for each item of equipment or instrument. It will contain the complete history of the item from the date of purchase up to its ultimate disposal. The total purchase cost, records of maintenance and repair operations with cost, and the estimation of the probable life expectancy will be noted in the card.

The equipment record card will form the key reference for all the service functions. The maintenance and repair staff will be given guidelines for procedures. The standard guidelines will include the method of recording the work undertaken, and the materials to be used and explain the basic principle of selections, inspections, preventive maintenance and repairs. A Standards Guide will be supplemented by Procedure Manuals. These manuals should suggest the required frequency of preventive maintenance procedures, calibration instructions, trouble shooting methods and repair procedures.

Requisition forms for repair services will be made available to all hospitals. At the time of failure or apparent damage, a preliminary inspection will be carried out by the in-house technical staff and if they are unable to carry out the repairs, the next level Unit may be informed which will then take up the work. The engineering Unit will decide whether the repair will be attempted 'on site', in its maintenance faculty, or by an outside agency. In the latter instance, the engineering department will be responsible for issuing instructions for repairs and transport procedures. A 'work order' form will be prepared and directed to the appropriate staff. On the completion of the repair, the details of the services rendered will be transferred from the work order form to the equipment record card.

Training of maintenance personnel

The State has still to articulate its policy on what levels of maintenance and repair will be undertaken by in-house technical staff. This will dictate the type of technical training that

will have to be given and influence the decision on which arrangements and/or organisations and institutions are best suited to provide this. The policy will should also make clear which technologies are to be maintained by contractors.

Training in use of equipment

As described above, the Department of Health and Family Welfare proposes to set up a full-fledged equipment maintenance wing at the Directorate level as well as at district levels. Maintenance of sophisticated equipment will be contracted out to the manufacturer of the equipment or his authorised service centre. All other equipments will be maintained by in-house maintenance wing. However, it is essential for the actual users to be fully acquainted with the use and operation of the equipments so that they are not damaged due to mishandling. They should also be aware of simple maintenance checks, replacement of fuse etc. to ensure minimum down time. It is planned to include such training wherever feasible, into the clinical training programme. For other equipments, training will be imparted at the nearest Taluk or District hospital where such equipment is available. An indicative list of the training required by various cadres is given in Table 4 (attached)

Table 4: Training in Use of Equipment

Doctors	Doctors & Nurses	Nurses & Operating Theatre Assistants
Audiometer	Cardiac monitor	Operating table (hydraulic)
Endoscope (fibreoptic)	Defibrillator (with recorder)	Autoclave HP (horizontal & vertical)
Operating microscope	Phototherapy unit	Autoclave (electrical)
Cryosurgery (basic)	Radiant heater (4 kw)	Shadowless lamp, OT (mobile)
Cryosurgery (deluxe)	Short-wave electro-physio unit	OT ceiling lamps
Ventilator (adult)	Emergency resuscitation kit	Focussing lights, OT, mobile
Boyles Apparatus with Flutec	Sigmoidoscope (rigid adult)	Suction machine (high vacuum, MTP)
Boyles Apparatus without Flutec	Acute Medical Care equipment	Suction apparatus (electrical)
Pulse Oximeter	Oxygen cylinder	Suction apparatus (foot operated)
Opthalmoscope	Nitrous oxide cylinder	Vacuum extractor
Slit lamp (with table)	Gas regulators & flow meters	Instrument Sterilizer
Retinoscope	Ambu bag	Automist (OT fumigator)
Perimeter	Laryngoscope (adult & child)	Weighing scale (adult)
Pulse air tonometer	BP machine	Weighing scale (infant)
Dental unit	Oxygen masks (with regulators)	Infra-red lamp
Autoscope		Emergency lamp
Universal bone drill		Fire extinguishers
Electo-surgery machine		
Electric cautery set (gynaec)		

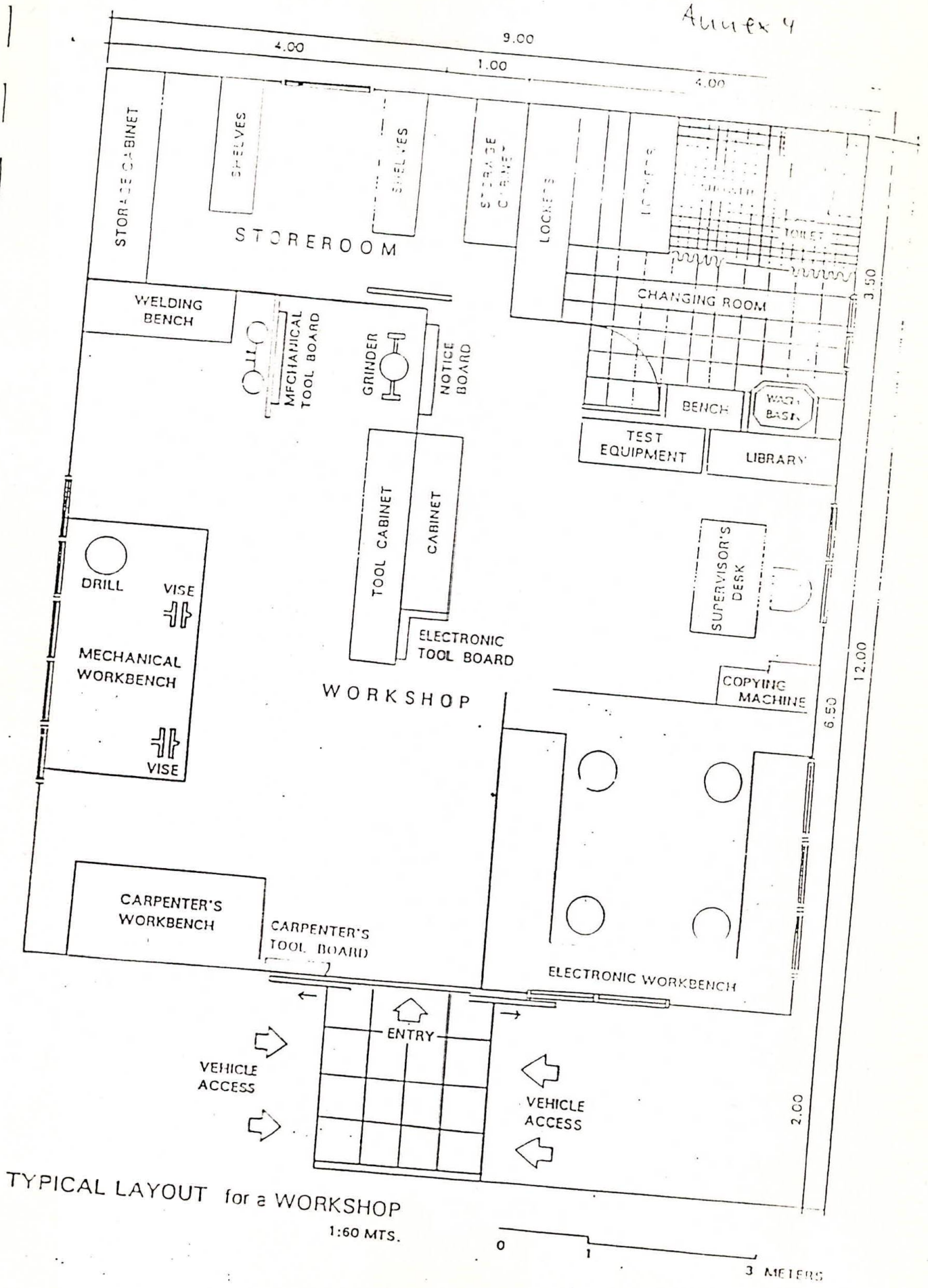
Annex 4

MAINTENANCE ARRANGEMENTS

First-line maintenance by in-house technical staff	Minor attention by in-house staff (other work contracted-out locally)
500mA X-ray system 300mA X-ray system 100mA X-ray system Chest stand. X-ray 60mA mobile X-ray system Dental X-ray system Ultrasonic scanner, linear U/sonic scanner, linear sector Defibrillator (with recorder) Endoscope, fibre-optic Operating microscope Ventilator, adult Emergency resuscitation kit Acute Medical Care system Dental Chair Aerotor (turbine & compressor) Ultrasonic dental scaler Dental lab. : bath, motor etc Operating table, hydraulic pH meter Glucometer Blood-gas analyser Generators (various) Incinerators Hot water systems (solar) Gas regulators & flowmeters Sewing machine	Tables (various) Beds (various) Foot steps Beside screen Stools (various) Saline stand Wheel chair Emergency/recovery trolley Stretcher on trolley Oxygen cylinder stand/trolley Height measuring stand Cots (various) Beside locker Trolleys (various) Cabinets (various) Traction system Chairs (various) Racks (various) Steel cupboard Wooden bench

Fully contracted out services	
Anaes. m/c (with FloTec) Anaes. m/c (without FloTec) Pulse Oximeter Oxygen cylinder Nitrous oxide cylinder Ambulance Hearse Pick-up	Typewriter Photocopier Roneo m/c Intercoms Fax machine Telephones Fire extinguishers

Annex 4



TYPICAL LAYOUT for a WORKSHOP

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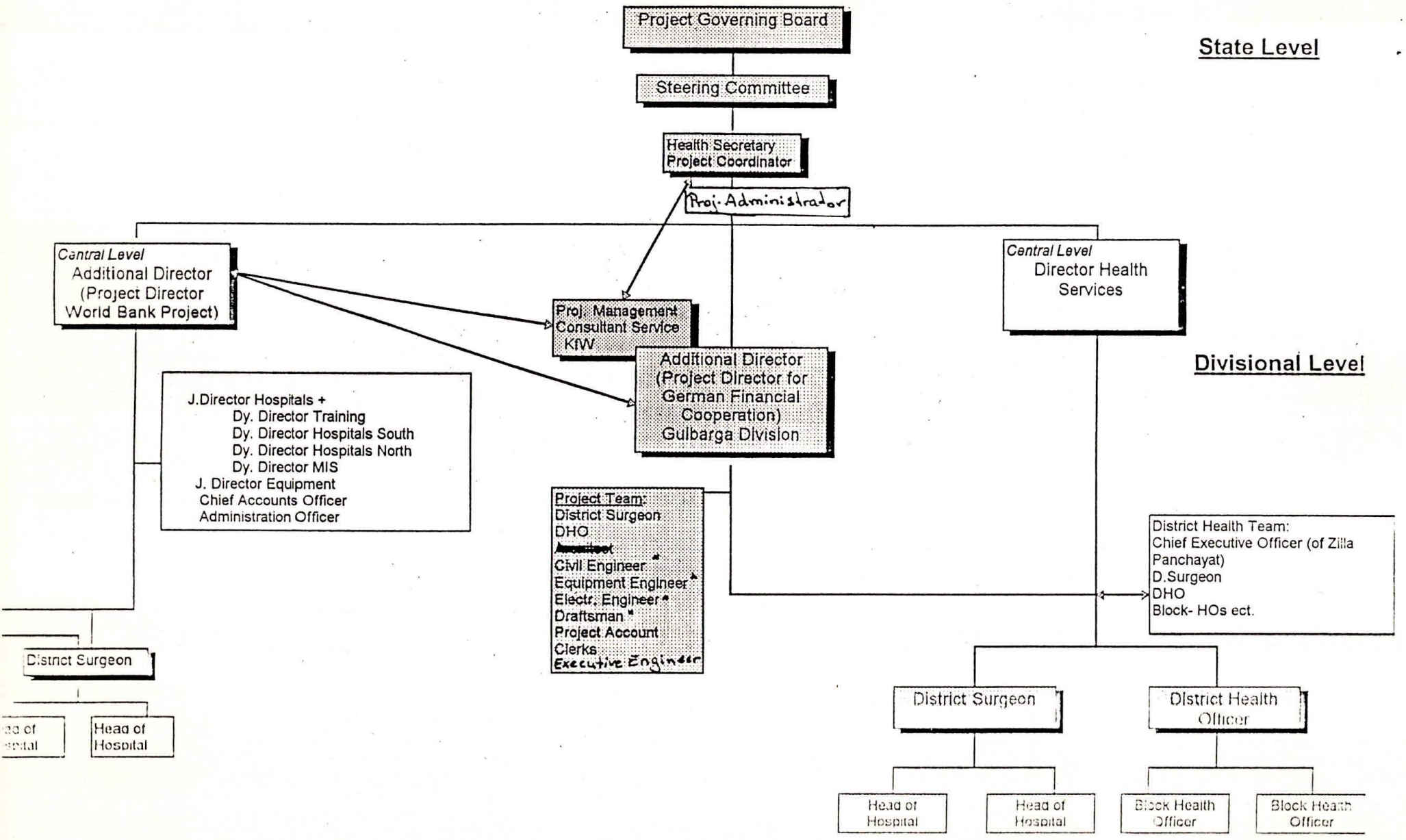
PROJECT ORGANIZATION



* if necessary

Annex 5

PROJECTMANAGEMENT AND ORGANISATION

Project Government Board (PGB):

Members:

Chief Secretary to the Government (Chairman)
Additional Chief Secretary, Finance
Secretary to the Government, Department of Planning
Secretary to the Government, Department of Public Works (PWD)
Secretary to the Government, Department of Health and Family Welfare (Project Coordinator)
Additional Secretary, Karnataka Health System Development Project (Project Administrator)
Director of Department of Health and Family Welfare
Representative of the Government of India from the Ministry of Health and Family Welfare
Additional Director of the Gulbarga Division

Responsibilities:

- The PGB will meet twice a year.
- Empowered to make major policy decisions and develop broad policy outlines of the project
- Approve the annual budget
- Authorise major project revisions
- Ratify decisions made by the Steering Committee
- Formulate rules and regulations
- Delegates powers to the Steering Committee
- Undertake an annual review of project implementation and monitor overall project progress

Steering Committee

Members:

Secretary to Government, DHFW (Chairman and Project Co-ordinator)
Secretary II to Government, Finance
Additional Secretary, DHFW
Director, Department of Medical Education
Director, Department of DHFW
Joint Director, Hospitals
Additional Director, Strategic Management Cell, Department of Health
Chief Engineer, Design and Engineering Wing, DHFW
Chief Architect, Design and Engineering Wing, DHFW
Chief Accounts Officer, Department of Health
Consultant for the Gulbarga Division

Responsibilities:

- The Steering Committee will meet every two months
- Nodal body for project implementation
- Supervise and monitor project implementation
- Undertake planning activities
- Facilitate project management activities

Secretary DHFW / Project Co-ordinator

Responsibilities:

- Co-ordination of the different activities of the two projects

Project Administrator

Responsibilities:

- Supports the Project Co-ordniator with the organisation of the implementation of the different activities of the two projects;
- Approves project expenses in co-ordination with the consultant to be realised in the Gulbarga Division, which exeeds the ceilings defined by the PGB and therefore cannot be approved by the Project Director.

Add. Director Project, Gulbarga Division:

Responsibilities:

- Supported by the project team and the consultant
- Reports directly to the Project Administrator
- In-charge of the day-to-day management
- Coordination of the technical assistance for the Gulbarga Division
- Approves project expenses in co-ordination with the consultant up to a ceiling still to be defined by the PGB

Project Team Gulbarga Division

Members:

District Surgeon of each district (in-charge of hospitals with 100 beds and more)
District Health Officers of each district (in-charge of hospitals up to 50 beds)
Executive Engineer
Civil Engineer, if necessary
Equipment Engineer, if necessary
Electrical Engineer, if necessary
Draftsman, if necessary
Project Account
Clerks
Public Works Department (only supervision)

Responsibilities:

- Reports directly to the project director
- Supervising and monitoring all the facilities to be renovated, extended and equipped

District Health Committee

Members:

Chief Executive Officer, Zilla Parishad
District Surgeon
District Health Officer
Superintending Engineer

Responsibilities:

- Facilitate the functioning of the referral system
- Collection and redistribution of the user charges
- Maintenance of equipment
- Waste management
- Training of technical staff
- Quality assurance

* if necessary

Project Management Consulting Services

Responsibilities:

- Supports the project director and the project team;
- Assist in the final design of the facilities and supervision of implementation;
- Co-ordinates with the Project Co-ordinator, Project Administrator and Project Director the technical assistance;
- Approves project expenses in coordination with the project co-ordinator or project director depending on the amount;
- Sub-contracts local architects and engineers for detailed planning.

GOV - 2.

Secretary to the
Government of Karnataka
Department of Health and Family Welfare

Bangalore / India

officer in charge: Ms. Jüngling
our ref.: Jün
extension: 3187
Date: 16.01.97

L III/a German Financial Cooperation with India
Financial Contribution of DM 23 million for Upgrading Secondary Level Health Care Facilities in Karnataka, Phase I-
No.: 95 66 944

Dear Sirs,

With the ~~Financing~~ Project Agreement dated 16.01.97 entered into between India ("Recipient") and Kreditanstalt für Wiederaufbau ("KfW"), the parties to said Agreement aim to improve the quality and efficiency of the secondary level health services in the Gulbarga Division through Upgrading of Secondary Level Health Care Facilities . The funds shall be used primarily for the rehabilitation and extension of Secondary Level Hospitals in the Gulbarga Division, for the construction of staff housing units and waste disposal units, for drugs, consumables, medical equipment, vehicles and for the construction and equipment of four maintenance units. The overall project aim is to improve the health status of the rural population in the Gulbarga Division, especially women and children, by reducing infant mortality and the mortality rate of mothers and children.

ವಿಷಯ:— ಡಾ:ಪಿ.ಹೆಚ್.ರೆಡ್ಡಿ ನಿವೃತ್ತ ನಿರ್ದೇಶಕರು, ಜನ ಸಂಖ್ಯಾ ಕೇಂದ್ರ ಬೆಂಗಳೂರು ಇವರನ್ನು ಕರ್ನಾಟಕ ಆರೋಗ್ಯ ವ್ಯವಸ್ಥೆ ಅಭಿವೃದ್ಧಿ ಯೋಜನೆಯಲ್ಲಿ ವಿಶೇಷ ಕರ್ತವ್ಯಾಧಿಕಾರಿಯಾಗಿ ಗುತ್ತಿಗೆ ಆಧಾರದಲ್ಲಿ ನೇಮಕಾತಿ ಮಾಡುವ ಬಗ್ಗೆ.

ಓದಲಾಗಿದೆ:—(1) ದಿನಾಂಕ:21.8.96 ರಂದು ನಡೆದ ಯೋಜನಾ ಆಡಳಿತ ಮಂಡಳಿಯ 3ನೇ ಸಭೆಯ ನಡವಳಿ

(2) ದಿನಾಂಕ: 7—1—97 ರಂದು ನಡೆದ ಯೋಜನಾ ಆಡಳಿತ ಮಂಡಳಿಯ 4ನೇ ಸಭೆಯ ನಡವಳಿ.

ಪ್ರಸ್ತಾವನೆ :

ದಿನಾಂಕ 21—8—96 ರಂದು ನಡೆದ ಯೋಜನಾ ಆಡಳಿತ ಮಂಡಳಿಯ 3ನೇ ಸಭೆಯಲ್ಲಿ ಭಾರತ ಜನಸಂಖ್ಯೆ ಕೇಂದ್ರದಲ್ಲಿ ಹಿಂದೆ ನಿರ್ದೇಶಕರಾಗಿದ್ದು ನಿವೃತ್ತಿ ಹೊಂದಿರುವ ಡಾ: ಪಿ.ಹೆಚ್.ರೆಡ್ಡಿಯವರನ್ನು ಯೋಜನೆಯ ಯೋಜನಾ ಕೋಶದಲ್ಲಿ ಸಲಹೆಗಾರರಾಗಿ ನೇಮಿಸಿಕೊಳ್ಳಲು ಒಪ್ಪಲಾಯಿತು ಈ ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದ ಆಯಕಟ್ಟು ಯೋಜನಾ ಕೋಶದಲ್ಲಿ ಸಹ ನಿರ್ದೇಶಕ (ಸಮಾಜ ವಿಜ್ಞಾನ) ರಾಗಿದ್ದ ಡಾ: ರಾಜು ಎಂಬುವರ ಕೋರಿಕೆಯ ಮೇರೆಗೆ ಸದರಿಯವರನ್ನು ಅವರ ಹುದ್ದೆಯಿಂದ ದಿನಾಂಕ:30—11—96 ರಂದು ಬಿಡುಗಡೆ ಗೊಳಿಸಿದ್ದು, ಈಗ ಆ ಹುದ್ದೆಯು ಖಾಲಿಯಿರುತ್ತದೆ. ಶ್ರೀ ಪಿ.ಹೆಚ್.ರೆಡ್ಡಿಯವರು ಸಮಾಜ ಶಾಸ್ತ್ರದಲ್ಲಿ ಪಿ.ಹೆಚ್.ಡಿ ಪದವಿ ಪೂರೈಸಿದ್ದು ಹಾಗೂ ಈ ಹಿಂದೆ ಜನ ಸಂಖ್ಯಾ ಕೇಂದ್ರದಲ್ಲಿ ನಿರ್ದೇಶಕರಾಗಿ ಹೆಚ್ಚಿನ ಪರಿಣತಿ ಹೊಂದಿದ್ದು ಡಾ:ರಾಜುರವರ ಬದಲಿಗೆ ಇವರು ಸೂಕ್ತವಾದ ಅಭ್ಯರ್ಥಿಯಾಗಿ ಕಂಡು ಬಂದಿರುವ ಕಾರಣ, ದಿನಾಂಕ 7—1—97 ರಂದು ನಡೆದ ಯೋಜನಾ ಆಡಳಿತ ಮಂಡಳಿಯ ಸಭೆಯಲ್ಲಿ ಈ ಬಗ್ಗೆ ಪ್ರಸ್ತಾವನೆ ಮಂಡಿಸಲಾಗಿ, ಯೋಜನಾ ಆಡಳಿತ ಮಂಡಳಿಯು ಡಾ: ಪಿ.ಹೆಚ್.ರೆಡ್ಡಿಯವರನ್ನು ಡಾ:ರಾಜುರವರಿಂದ ತೆರವಾದ ಜಾಗಕ್ಕೆ ವಿಶೇಷ ಕರ್ತವ್ಯಾಧಿಕಾರಿಯಾಗಿ ನೇಮಕಾತಿ ಮಾಡಲು ಒಪ್ಪಿಗೆ ನೀಡಿರುತ್ತೆ. ಆದ್ದರಿಂದ ಈ ಕೆಳಕಂಡಂತೆ ಆದೇಶಿಸಿದೆ.

ಆಡಳಿತ ಸಂಖ್ಯೆ :ಪಿಹೆ.ಎಫ್.ಡಬ್ಲ್ಯೂಕ್ಯೂ(ಪಿ ಆರ್) 132 ಡಬ್ಲ್ಯೂಕ್ಯೂವಿ 96 ಬೆಂಗಳೂರು, ದಿನಾಂಕ:: 27—01—97

ಡಾ: ಪಿ.ಹೆಚ್.ರೆಡ್ಡಿ ನಿವೃತ್ತ ನಿರ್ದೇಶಕರು ಜನಸಂಖ್ಯಾ ಕೇಂದ್ರ ಬೆಂಗಳೂರು ಇವರನ್ನು ಮಾಸಿಕ ಒಟ್ಟು ವೇತನ ರೂ. 10,700—(ರೂಪಾಯಿ ಹತ್ತು ಸಾವಿರದ ಏಳು ನೂರು) ಮಾತ್ರ ನಿಗದಿಪಡಿಸಿ ಕರ್ನಾಟಕ ಆರೋಗ್ಯ ವ್ಯವಸ್ಥೆ ಅಭಿವೃದ್ಧಿ ಯೋಜನೆಯಲ್ಲಿ ಸಾಮಾಜಿಕ ಯೋಜನಾ ವಿಭಾಗದಲ್ಲಿ ವಿಶೇಷ ಕರ್ತವ್ಯಾಧಿಕಾರಿಯಾಗಿ ಗುತ್ತಿಗೆ ಆಧಾರದ ಮೇರೆ ಎರಡು (2) ವರ್ಷಗಳ ಅವಧಿಗೆ ಮಾತ್ರ ದಿನಾಂಕ 1—12—96 ರಿಂದ ಅನ್ವಯಿಸುವಂತೆ ನೇಮಕಾತಿ ನೀಡಿ ಆದೇಶಿಸಿದೆ.

ಮುಂದುವರಿಯುತ್ತದೆ...

the remaining Divisions of the State of Karnataka and will provide technical assistance for the whole State.

In accordance with the ~~Financing~~ Project Agreement the following shall be determined by separate agreement:

Pursuant to Article 1.2:
the details of the Project as well as the goods and services to be financed from the financial contribution;

Pursuant to Article 2.1:
the disbursement procedure, in particular the evidence proving that the disbursed financial contribution amounts are used for the stipulated purpose;

Pursuant to Article 4.2:
the details pertaining to Article 4.1 (Project Implementation)

We propose that the following be agreed upon:

1. **Details of the Project and Specification of the Goods and Services**

1.1 According to the documentation at KfW's disposal and the negotiations held between KfW and the Project Executing Agency, the Project comprises the following measures at the estimated costs so far used as basis:

Upgrading Secondary Health Care Facilities in Karnataka, Phase I

Measures	Total Costs Rs. (Million)	Local Costs Rs. (Million)	Foreign Exchange Costs Rs.(Million)	Financial Contribution Rs. (Million)	Financial Contribution DM. (Million)
Rehabilitation of Secondary Level Health Institutions	277.20	233.2	44.00	244.20	11,1
a) Construction	154.00	154.00		154.00	7,0
b) Medical Equipment, Medicines	114.40	70.40	44.00	81.40	3,7
c) Vehicles	8.80	8.80		8.80	0,4
Rehabilitation of two District Hospitals	**24.20**	**24.20**		**24.20**	**1,1**
Maintenance Facilities	**33.00**	**33.00**		**13.20**	**0,6**
Waste Disposal Facilities	**19.80**	**19.80**		**17.60**	**0,8**
Management-Information-System and Surveillance	**4.40**	**4.40**			
SC/ST/Women	**17.60**	**17.60**			
Project Management	**96.80**	**63.80**		**88.00**	**4,0**
a) Consultant Services	33.00		33.00	33.00	1,5
b) Fees for design	13.20	13.20		13.20	0,6
c) PMC	50.60	50.60		41.80	1,9
Price and Physical Contingencies	**118.80**	**118.80**		**118.80**	**5,4**
Price Contingencies	52.80	52.80		52.80	2,4
Physical Contingencies	66.00	66.00		66.00	3,0
TOTAL	**591.80**	**514.80**	**77.00**	**506.00**	**23,0**

*) **conversion at an exchange rate of 1 DM = 22Rs**

Should any major changes emerge in the measures stated in the above list of project measures or in the cost estimates, KfW shall be informed without delay. Execution of such measures may commence only on the basis of revised planning and upon KfW's prior consent.

The list of the goods and services to be financed from the financial contribution shall be prepared on the basis of the contracts concluded for such goods and services. New contracts shall be summarised in quarterly summary statements of contracts (Statement of Contracts) concluded according to standard form in Annex **1**. Evidence of the compliance of all contracts with the Financing Agreement, this Separate Agreement and the agreed Standard Form of Contracts shall be checked and certified by the Consultant (see section **3.5**). KfW reserves the right to have all original contracts submitted for inspection at any time.

For Programme measures to be executed on force account a schedule of the force-account measures, broken down by main cost categories ("Schedule of Force-Account Measures") shall be prepared. Costs incurred for general administration in connection with force account work must not be included in this Schedule of Force-Account Measures. After review of the Statement of Contracts and the Schedule of Force-Account Measures, KfW shall transmit to the Project-Executing Agency numbered letters stating the amounts it has reserved for financing from the Financial Contribution and shall send it the "List of Goods and Services", supplemented from case to case.

1.3 When concluding contracts for goods and services to be financed from the financial contribution, the Project Executing Agency shall observe the following principles:

a) The payment conditions of the contract must be in line with commercial practice.

b) To safeguard the advance payments and the due performance of the contracts, the contracts shall provide for the appropriate advance payment guarantees and performance bonds to be given by banks or insurance companies. Said guarantees and bonds shall be denominated in a freely convertible currency if and to the extent that foreign exchange costs are to be financed.

c) As no import duties may be financed from the financial contribution pursuant to Article **1.3** of the Financing Agreement, such import duties, if part of the contract value, shall be stated separately in the contracts for the goods and services and in the invoices.

d) It shall be ensured that the goods to be financed from the financial contribution are insured adequately and to the customary extent

against risks occurring during transport and project implementation so that their replacement or restitution is possible. Said insurances shall be concluded in a freely convertible currency to the extent that foreign exchange costs accruing to the Project Executing Agency are to be financed.

e) If payments due under the contracts for goods and services are to be made from the financial contribution, said contracts shall include a provision stipulating that any reimbursements, guarantee or similar claimable payments and any insurance payments shall be made for account of the Project Executing Agency to KfW's account No. 500 204 00 with the Landeszentralbank, Frankfurt am Main (BLZ 500 204 00), with KfW crediting such payments to the account of the Recipient. If such payments are made in local currency they shall be remitted to a special account of the Project Executing Agency in Indian Rupees, which may be drawn on only with the consent of KfW. Such funds may be re-utilized in accord with KfW for the execution of the project.

2. Disbursement Procedure

The disbursement procedure shall be governed by the "Guidelines for the Disbursement of Funds of Financial Cooperation and Comparable Programmes by KfW", which form an integral part of this Agreement and by the following special provisions:

The payments for the Consultant shall be effected in conformity with Para 6 of the Agency Contract enclosed as Annex 4.

For the measures specified in Section 1.1 of this Separate Agreement (Purpose) disbursement will be made under the Disposition Fund Procedure up to the amount of

DM 23.0 million

reduced by the costs for the consultant (p. 3, Project Management, Consultant Services) and other foreign exchange costs.

These funds are intended for the financing of local costs. For this purpose a

special account (Special Account) will be opened in the name of the Department of Health and Family Welfare, Govtemment of Karnataka ("Authorized Party"). Details are contained in item **1** of the enclosed Supplementary Conditions of KfW for Payments under the Disposition Fund Procedure. The "Supplementary Conditions" form an integral part of this Separate Agreement and are accepted upon signing thereof.

The Project-Executing-Agency hereby requests an initial deposit of

DM 500,000.00.

as soon as the prerequisites for disbursement as defined in section **2** of the attached "Supplementary Conditions" are fulfilled.

The presentation of evidence of the use of funds, together with the submission of requests for replenishment (see specimen form in Annex **2** "Supplementary Conditions"), shall be effected by the Project-Executing-Agency after expenditures of at least DM 300,000.00 can be evidenced, but not later than three months after the preceding payment. If this deadline cannot be met. KfW will be informed immediately of the state of affairs (see item **8** "Supplementary Conditions").

In order to ensure a synchronized beginning with the World Bank financed project component, retroactive financing of project costs occuring on and after December 1995 shall be allowed, provided these cost have been incurred based on the agreed final design. Retroactive financing will be acceptable for planning/design and urgently needed repairs up to an individual amount of DM 50,000.00 per contract and should not exceed a total of DM 500,000.00 provided the works are executed in accordance with the prescribed procedures of the State Government. The consultant shall approve these expenditures made by the Project Executing Agency prior to refunding.

3. Project Implementation

3.1 The Department of Health and Family Welfare, Government of Karnataka (Project Executing Agency) is responsible for the implementation of the Project and shall delegate to the Project Director the authority required for day-to-day management within the first six months after signing of this agreement. The Project Director shall then be able to decide on project expenses with the approval of the consultant (see **3.4**) upto an amount still to be determined. Project costs exceeding these limits must be countersigned by both the project

administrator based in Bangalore and the consultant. The Project Executing Agency shall pay the salaries of the project team. For details of the overall project organisation, see Annex 3.

3.2 The timetable and the cost and financing schedule including staffing (posts sanctioned and filled) required for the proper technical and financial implementation of the Project shall be prepared by the Project Executing Agency prior to the beginning of the Project and submitted to KfW for approval. Such schedule is to show, by deadlines and amounts, the intended chronological interrelation of the individual project measures and the resulting financial requirements. Additionally, the Project Executing Agency shall, not later than by the end of each calendar year, provide KfW in conjunction with the consultant, an annual work plan setting forth the respective construction activities and procurements under the project to be carried out during the next following fiscal year including the budgetary allocations to be made available for such purposes. The form of these schedules shall be agreed with KfW.

3.3 For purposes of enhancing the quality of health care services under this Project, the Project-Executing Agency shall: (i) maintain the key headquarters personnel appointed for purposes of implementing the Project; (ii) appoint and thereafter maintain key additional personnel with adequate qualification and experience; (iii) adopt, no later than six months after completion of the physical improvements in any hospital under the Project, and thereafter implement, staffing and technical norms acceptable to the KfW;

3.4 In order to support the Project-Exectuing Agency in the preparation, implementation and monitoring of the project, an European consultant to be financed from the financial contribution shall be designated. The consultant shall work together with local consultant firms.

KfW will assist the Project-Executing Agency in selecting and contracting the consultants on the basis of the Agency Contract, enclosed as Annex 4.

3.5 The tasks of the consultant shall be to review the previously prepared technical documents and assist in the final design of the hospitals, the final lists of procurements, preparation of tender documents for construction and procurements, evaluation of bids, proposals for the award of contracts, drafting contracts, commissioning of deliveries and supervision of construction and implementation. He shall be permanently based in the State of Karnataka and may sub-contract specific services with local firms. Furthermore the consultant

shall assist the Project Director in the coordination of the technical assistance provided by the World Bank in the Gulbarga Division. The consultant shall be a member of the Steering Committee. The agreed Terms of Reference for consultants are attached as Annex 7.

The Projecy Executing Agency shall engage local architects, engineers and medical experts to prepare standard designs for hospitals as well as set standards for equipments and consumables. These standards will be reviewed by the consultant and shall be approved by KfW. The final design of construction measures shall be based on the existing standard design but shall allow, if required, for modifications in order to adapt the design to local conditions and requirements. The construction services shall be locally tendered and awarded by the Project Executing Agency in cooperation with the consultant.

Prior to the first tender invitation the Project Executing Agency together with the consultant shall prepare a set of Standard Tender Documents for construction services and for equipment procurement. These Standard Tender Documents shall be submitted to KfW for approval and shall be used for all tenders within the Programme. The Project Executing Agency together with the consultant shall likewise prepare a set of Standard Contracts for construction services and for equipment procurement. These Standard Contracts shall be submitted to KfW for approval and shall be used for all contracts within the Programme.

3.6 The procurement of goods shall be carried out through the central procurement unit established for the implementation of the Karnataka Health Systems Development Project II which shall function according to procurement regulations of the World Bank.

3.7 The final lists of procurments for each hospital shall be based on the existing standard lists but shall allow, if required, for modifications in order to adapt the lists to local conditions and requirements. The contracts for goods shall be awarded in cooperation with the consultants by way of competitive bidding in India for lots not exceeding DM 300.000,-. For lots above this threshold , an international bidding shall be required.

3.8 The remaining details concerning the awarding procedure and contractual provisions are explained in the "Guidelines of KfW for procurement in the field of Financial Cooperation".

3.9 "Additional Supplementary Conditions".

3.9.1 The share of non-plan and plan budgetary allocations to the health sector relative to the overall plan and non-plan budget of the state shall be maintained by the Government of Karnataka (GoK) each year at the Fiscal Year 1994 level;

3.9.2. Shares of the primary and secondary levels in the total resources (plan and non-plan) allocated for the health sector shall be increased by the GoK each year until the year 2002;

3.9.3. The existing regional imbalances of budget allocations of the underdeveloped districts (including all districts in the Gulbarga Division) and tribal areas shall be reduced by the GoK;

3.9.4. Sufficient resources for drugs, essential supplies and maintenance of equipment and buildings shall be allocated at first referral hospitals in accordance with the agreed norms;

3.9.6. A minimum of 3.5 % of the equipment costs per year and 2.5 % of costs for the physical infrastructure shall be provided as a maintenance budget.

3.10 The Project Executing Agency shall report to KfW quarterly on the progress of the Project. Until further notice, the Project-Executing Agency shall report to KfW quarterly on the progress of the Programme. Prior to submission of the first report , the Project Execution Agency together with the consultant shall prepare a reporting form, which shall cover the points stated in the list attached hereto (Annex 8) and submit it for approval to KfW. The first such report shall be prepared as of March 31, 1997. The reports shall be countersigned by the consultant and submitted to the KfW not later than 6 weeks after the end of each reporting period.

After completion of the Programme, the Project-Executing Agency shall report on its further development. KfW shall in due course inform the Project-Executing Agency separately about the details, particularly the period, to be reported on.

3.11 The Projecy Executing Agency shall send KfW all such documents as are

necessary for KfW to give the aforementioned comments and approvals earl enough to allow reasonable time for examination.

3.12 If sign boards relating to the Project are set up they will read as follows:

"A Development Project of Government of Karnataka, co-financed by th Federal Republic of Germany through Kreditanstalt für Wiederaufbau."
Following notification by the German Embassy, the Project Executing Agenc shall ensure that the project seal will be placed on the project sign board.

4. Miscellaneous Provisions

The above provisions may be amended or modified at any time by mutua consent if this should appear useful for the implementation of the Project or the execution of the Financing Agreement. In all other respects, the provisions of Articles 5.2 and 7 of the Financing Agreement shall apply to this Agreement accordingly.

GOV-2.

GOVERNMENT OF KARNATAKA

DRAFT

STRENGTHENING OF IMMUNIZATION COVERAGE FOR VACCINE PREVENTABLE DISEASES UNDER H.N.P PROJECT

Director of Health & Family Welfare Services,
July 25th 2001.

VACCINE PREVENTABLE DISEASES

The Vaccine Preventable diseases covered by UIP are

1. Diphtheria
2. Whooping cough
3. Tetanus
4. Tuberculosis
5. Polio
6. Measles

Evaluation of routine immunization by the Department of Family Welfare Government of India (1997-98), shows that the level of fully immunized children for the 6-vaccine preventable diseases range from 60-80% in Karnataka.

The recent 1998-99 NFHS survey, RCH household surveys and Multi Indicator cluster surveys show, that measles immunization coverage of children aged 12-23 months was only 67% in the state and was as low as 32.5% in Gulbarga, 44% in Raichur 57.2% in Bidar, and 69.3% in Bellary. The Pulse Polio Immunization Programme since 1995 has reduced the incidence of Polio Cases to eight(8)at the end of 2000. The Campaign approach in some places has lowered implementation of other programmes including routine immunization for other diseases. Large number of vacancies, particularly ANMs in northern districts have a negative impact on MCH programme, specially immunization.

Karnataka has the lowest coverage among the cluster of four southern contiguous states in respect of. BCG (84.8%), DPT-3 and OPV (75.2%), Measles (67.3%). Immunization with all antigens is 60%, though immunization cards are available only for 41.2% of children.

Antenatal women receiving 2 doses of T.T. in Karnataka is 74.9% (NFHS-2) though, State Programme of Action Plan for the Child (1994) targeted 100% Coverage.

PRIMARY OBJECTIVE:

To improve the Routine Immunization Coverage to 100% and there by reduce the incidence of Vaccine Preventable Diseases. (VPDs) by 2007.

SECONDARY OBJECTIVES:

To identify gaps in the Routine Immunization programme and to take necessary measures to improve routine Immunization Coverage.

Special focus to be on Taluks and Districts which have recorded poor coverage. The following are the Districts identified for strengthening immunization coverage.

1. Gulbarga
2. Raichur
3. Koppal
4. Bellary
5. Bijapur
6. Bidar
7. Bagalkot
8. Chamaraja Nagar

FOCUSSED INTERVENTIONS:

EVALUATION OF THE EXISTING POSITION BY A NODAL OFFICER

A nodal officer should be appointed in each of the Districts whose responsibility will be to implement the proposed interventions of this project. His first job will be to assess and evaluate the existing levels of immunization coverage and to identify the reasons there of. This should serve as a base line for further activities.

The nodal officer will be the manager totally responsible for implementing all the project interventions and he will have control over all other functionaries. The number and qualification of the District nodal officer is given in the guidelines.

At the Taluka level an existing Departmental officer preferably the Taluka health officer will be the nodal person for implementation of the programme. He will work under the directions of the District nodal officer & will be the taluka manager for strengthening routine immunization. A special incentive of Honorarium is proposed subjected to satisfactory performance.

1. INVOLVEMENT OF PANCHAYATH FUNCTIONARIES VERY INTENSIVELY, ACTIVELY AT EVERY STAGE.

Sensitise the Panchayat members regarding routine immunization. Involve them in getting all children in their area immunized with primary immunization & Booster Doses.

They will be actively involved in implementation of mass immunization campaigns. They can function effectively in co-ordination with the local AWW & ANM. The Panchayat functionaries will be introduced to take the responsibility for organizing routine immunization camps by providing place and other facilities required for the programme.

2. ORIENTATION/TRAINING OF ALL ANM's, AWW, LHVs, MALE HEALTH WORKERS, COMMUNITY HEALTH GUIDES AND PANCHAYATH FUNCTIONARIES.

At the beginning of the project a one-day training programme for all health Functionaries, AWWs & CHGs both female and male will be given about the objectives of the project, the interventions and the operational details. This will be conducted at the Taluka/PHC level by the nodal officer of district/taluka. The panchayat functionaries of Zilla Panchayat, Taluk Panchayat & Grama Panchayat will also be trained on all aspects with emphasis on community participation. This training will be made compulsory for elected representatives.

The Training process will be repeated for re-orientation every quarter.

3. PLANNING OF "MOTHER CHILD PROTECTION SESSIONS "TO COVER BACKLOG.

Mother Child Protection Sessions will be organized at the PHC level to cover backlog every quarter.

This backlog for the quarter will be identified by the Medical Officer of Health of the PHC by scrutinizing documents like registers, of Anganwadi centers and sub-centres, and immunization cards.

The Grama Panchayath will also be encouraged to keep a record of children to be immunized and update the same at frequent intervals. This record will also be used for identifying the backlog. While identifying backlog special attention is proposed to be given to the socially under privileged settlements and to nomadic and homeless.

Efforts will be made to identify the under privileged and nomadic tribes for better coverage.

4. DEVELOPMENT OF DELAYED IMMUNIZATION PROTOCOL TO IDENTIFY LAPSES.

Thorough search will be undertaken to identify zero dose children by the ANM/Anganawadi workers/Panchayat functionary and corrective measures taken.

6. STRICT DEALING OF LAPSES IN IMMUNIZATION PROTOCOLS.

7. ADEQUATE SUPPLY OF VACCINE AND OTHER LOGISTICS.

Logistics

a. Ensure adequate supply of Vaccines/Syringes/Needles.
b. Strengthening cold chain by identifying and appointing reputed agencies for annual maintenance contracts.

8. THOROUGH INVESTIGATION OF OCCURENCE OF ANY VACCINE PREVENTABLE DISEASES.

9. INVOLVEMENT OF PRIVATE PRACTIONERS OF NURSING HOMES DURING MASS CAMPAIGN ON HONORARIUM BASIS.

10. MAKE SHIFT ARRANGEMENTS OF FIELD STAFF FROM NEIGHBOURING DISTRICTS.

RECOMMENDED GUIDELINES

In order to achieve near 100% coverage of routine immunization the following guidelines are to be followed.

Appointing a Nodal Professional, preferably a postgraduate in Community Medicine to the following eight districts. The Officers are to be placed as follows.

Bijapur & Bagalkote District	1
Raichur & Koppal	1
Gulbarga (8 Taluks only)	1
Bidar + Gulbarga (adjacent 2 Taluks)	1
Bellary	1
Chamarajanagar	1

The Six(6) Officers have to be appointed after thorough screening, regarding his/her knowledge, zeal, energy, motivation and commitment to the cause. The Officer has to work independently and co-ordinate with the concerned district official. He should be provided transportation (Hiring of vehicles) and remuneration.

In addition, a Nodal Person will be identified at the taluk level, provid mobility support and made responsible for the immunization activities.

Following measures will be taken up on priority to fortify the ongoing immunization activities.

1. Filling up of all vacant posts of ANMs and Staff Nurses.
2. ANMs to work only in the field and no deputation.
3. ANMs to compulsorily reside at HQ.
4. ANM to be provided a two wheeler , with adequate provision for POL.
5. ANM to be provided a Helper for assisting her in immunization activities.
6. Leave reserve ANM Posts stop gap arrangements.
7. Prepaid post cards will be given to ANMs to report urgent messages to the concerned authorities and draw their attention.
8. Ensuring continuous supply of registers and formats.
9. Provide a qualified Statistical Assistant at taluk level for data maintenance, monitoring and analysis.
10. Provide a small contingency amount to the ANMs for conducting immunization sessions, towards purchase of Ice/Kerosene etc.

NATIONAL FAMILY HEALTH SURVEY, 1998–99 (NFHS-2)

KARNATAKA

PRELIMINARY

REPORT

Institute for Social and Economic Change, Bangalore

and

International Institute for Population Sciences, Mumbai

April 2000

I. BACKGROUND

A. INTRODUCTION

India's first National Family Health Survey (NFHS-1) was conducted in 1992–93. The Ministry of Health and Family Welfare (MOHFW) subsequently designated the International Institute for Population Sciences, Mumbai, as the nodal agency to initiate a second survey (NFHS-2), which was conducted in 1998–99. An important objective of NFHS-2 is to provide state-level and national-level information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition of women and children, and to examine this information in the context of related socioeconomic and cultural factors. This information is intended to assist policymakers and programme administrators in planning and implementing strategies for improving population, health and nutrition programmes.

The NFHS-2 sample covers more than 99 percent of India's population living in 26 states. It does not cover, however, the union territories. NFHS-2 is a household survey with an overall target sample size of approximately 90,000 ever-married women in the age group 15–49.

NFHS-2 has been conducted with financial support from the United States Agency for International Development (USAID) and UNICEF and technical assistance from ORC Macro, Calverton, Maryland, USA, and the East-West Center, Honolulu, Hawaii, USA. Thirteen field organizations were selected to collect the data. Some of the field organizations are private sector organizations, and some are Population Research Centres established by the Government of India in various states. Each field organization had responsibility for collecting the data in one or more states. The Institute for Social and Economic Change in Bangalore was selected as the field organization for NFHS-2 in Karnataka.

An important purpose of this preliminary report is to make the basic findings of NFHS-2 in Karnataka available to decision makers as soon as possible, in order to maximize the usefulness of the findings. A more comprehensive final survey report for Karnataka will be published later.

II. SURVEY DESIGN AND IMPLEMENTATION

A. SAMPLE DESIGN

The sample for the Karnataka state survey consisted of 4,273 successfully interviewed households and 4,374 ever-married women age 15–49. The sample selection and implementation procedures were designed to ensure that the survey provides statistically valid estimates for population parameters and their sampling variances.

Reporting domains

The sample was designed to provide estimates for the state as a whole and for urban and rural areas of the state. The sample sizes are not large enough to provide district-level estimates.

Design

Within each domain, the sample was selected in two stages: the selection of primary sampling units (PSUs)—villages or census enumeration areas—with probability proportional to population size (PPS) at the first stage, followed by the selection of households within each sample area at the second stage, so as to achieve a self-weighting sample of households (i.e., so as to give every household in the domain the same chance of being included in the survey).

Selection of sample areas

In rural areas, the 1991 Census list of villages served as the sampling frame. The list of villages was stratified on the basis of a hierarchy of variables:

- by region, which is a grouping of districts according to their location and physical characteristics
- within a region, by categories of village size and percentage of scheduled caste and scheduled tribe population in the village[1]
- within each stratum, by level of female literacy in the village (obtained from the 1991 Census Village Directory)

[1]Scheduled castes and scheduled tribes are groups that are officially recognized by the Government of India as underprivileged.

From the list so arranged, the villages were selected systematically with probability proportional to the 1991 Census population of the village. Small villages were linked together to form PSUs of at least 50 households. Also, sample villages with more than 350 households were segmented and two segments per village were selected using the PPS method.

The procedure was similar in urban areas. The 1991 Census list of wards was arranged according to districts, and within districts, by level of female literacy, and then a sample of wards was selected systematically with population proportional to size. Next, one census enumeration block, consisting of approximately 150–200 households, was selected from each selected ward using the PPS method.

Selection of households

A mapping and household listing operation carried out in each sample area provided the necessary frame for selecting households at the second sampling stage. The work was carried out by 10 teams, each comprising one lister and one mapper, and the operation was supervised by five field supervisors and two field executives. The teams were trained from 16-24 January 1999 in Bangalore. The houselisting operation was carried out from 28 January to 31 May 1999.

The households to be interviewed were selected with equal probability from the household list for an area, using a systematic sampling procedure. The interval applied for the selection was determined so as to obtain a self-weighting sample of households. The average number of households to be selected in each selected village was 35. To avoid extreme variations in the workload, however, minimum and maximum limits of 15 and 60, respectively, were put on the number of households that could be selected from any area.

B. QUESTIONNAIRES

Three types of questionnaires were used in NFHS-2: the Household Questionnaire, the Woman's Questionnaire and the Village Questionnaire. The overall content and format of the questionnaires was determined in a series of workshops held at IIPS in Mumbai in 1997 and 1998. The workshops were attended by representatives of a wide range of organizations in the population and health fields, as well as experts working on gender issues.

The questionnaires used for NFHS-2 in Karnataka were bilingual, comprising questions in Kannada and English. The Household Questionnaire was used to list all usual residents of each sample household plus visitors who slept in the household the night

before the interview. Basic information collected on each listed person includes age, sex, marital status, relationship to the head of the household, education and occupation. Information was also collected on the prevalence of certain diseases, namely asthma, tuberculosis, malaria, and jaundice, and on certain risk behaviours, namely chewing *paan masala* or tobacco, drinking alcohol, and smoking. Further, information was collected on the usual place where household members go for treatment when they get sick, main source of drinking water, type of toilet facility, source of lighting, type of cooking fuel used, religion of the head of the household, caste/tribe of the head of the household, ownership of a house, ownership of agricultural land, ownership of livestock and ownership of selected items. In addition, a small sample of cooking salt used by the household was tested to see if it was fortified with iodine. The Household Questionnaire also asked about deaths occurring to household members in the two years before the survey. Basic information on the age, sex, and marital status of household members and visitors was used to identify eligible respondents for the Woman's Questionnaire.

The Woman's Questionnaire was used to collect information from eligible women, defined as all ever-married women in the age group 15–49, including not only usual residents of the household but also visitors who slept in the household the night before the household interview. The questionnaire covered the following topics:

- Background characteristics
- Marriage
- Reproductive history
- Knowledge and use of contraception
- Antenatal, natal and postnatal care
- Quality of care
- Pregnancy
- Feeding practices for children
- Immunization and the health of children
- Reproductive health
- Fertility preferences
- Status of women
- Husband's background and woman's work
- Acquired immune deficiency syndrome (AIDS)

In addition, the health investigator on each survey team measured the height and weight of each respondent and each of her children born since January 1996. The height and weight information is useful for assessing levels of nutrition prevailing in the population. The health investigators also took blood samples in order to assess the haemoglobin level of the respondent and each of her children born since January 1996. This information is useful for assessing prevalence rates of anaemia among women and children.

Haemoglobin levels were assessed in the field at the end of the interview using the portable HemoCue System, which provides test results in less than one minute. Severely anaemic persons received immediate referral to local medical authorities for treatment.

C. TRAINING AND FIELDWORK

Training of field staff for the main survey was conducted in Bangalore. The training was conducted by officials of the Population Research Centre at the Institute for Social and Economic Change, who were themselves trained in a Training of Trainers Workshop conducted earlier by IIPS. The training in Bangalore consisted of classroom training, general lectures, and demonstration and practice interviews, as well as actual field practice and additional training for field editors and supervisors. Health investigators attached to interviewing teams for height and weight measurements and anaemia testing were given additional specialized training in a centralized training programme conducted by IIPS in collaboration with the All India Institute of Medical Sciences (AIIMS), New Delhi. The training included not only classroom training but also extensive field practice in schools, *anganwadis*, and communities.

The main fieldwork for NFHS-2 in Karnataka was carried out by four interviewing teams, each of which consisted of one field supervisor, one female field editor, four female interviewers, and one health investigator. The fieldwork was carried out between 21 February 1999 and 31 July 1999. Monitoring and supervision of the data collection operations were carried out by the coordinators and senior staff of the Population Research Centre at the Institute for Social and Economic Change. IIPS also appointed one research officer who was assigned to help with the monitoring throughout the training and fieldwork period, in order to ensure that correct survey procedures were being followed and the quality of the data was being maintained. From time to time, project coordinators, senior research officers and other faculty members from IIPS, as well as staff members from ORC Macro and the East-West Center, also visited the field sites to monitor the data collection operation. The work of the health investigators was monitored separately by medical health coordinators appointed by IIPS. The data were quickly entered into microcomputers and field-check tables were produced to enable timely checks for certain commonly occurring errors in eliciting information and filling out questionnaires. Information from the field-check tables was fed back to the interviewing teams and their supervisors in the field so that they could improve their performance if needed.

D. DATA PROCESSING

All completed questionnaires for NFHS-2 in Karnataka were sent to the office of the Institute for Social and Economic Change in Bangalore for data processing. This processing consisted of office editing, coding, data entry and machine editing. The data

were processed using five microcomputers in conjunction with the data entry and editing software known as the Integrated System for Survey Analysis (ISSA). Data entry was done by four data entry operators under the supervision of senior staff at the Population Research Centre at the Institute for Social and Economic Change who were trained at a data processing workshop in Mumbai. Data entry and editing operations were completed by October 1999. The tables for the preliminary report were produced at IIPS, Mumbai.

E. SAMPLE IMPLEMENTATION

Basic features of the sample are summarized in Table 1. A total of 133 PSUs were selected, of which 41 were urban and 92 were rural. A total of 4,273 households and 4,374 eligible women were interviewed. The average number of women interviewed per PSU was 37 in urban areas, 31 in rural areas and 33 overall.

Table 1 also shows response rates for the household interview and the woman's interview, as well as the overall nonresponse for the survey. Nonresponse can occur at the stage of the household interview, and subsequently, at the stage of the woman's interview. The last row of the table shows the overall effect of nonresponse at the two stages. The survey succeeded in achieving a fairly high overall response rate of 92 per cent. The overall response rate is lower (90 per cent) in urban areas than in rural areas (93 per cent).

Table 1 Sample results

Number of Primary Sampling Units and sample results for households and ever-married women age 15-49, Karnataka, 1999

Result	Urban	Rural	Total
Number of Primary Sampling Units (PSU)	41	92	133
Number of households interviewed	1,552	2,721	4,273
Number of eligible women interviewed	1,504	2,870	4,374
Average number of interviewed women per PSU	36.7	31.2	32.9
Household response rate	96.0	97.8	97.1
Individual response rate	93.5	95.3	94.7
Overall response rate	89.7	93.2	91.9

Note: Eligible women are defined as ever-married women age 15-49 who stayed in the household the night before the interview. This table is based on the unweighted sample.

III. RESULTS

A. HOUSEHOLD CHARACTERISTICS

A sociodemographic profile of the household sample covered in NFHS-2 in Karnataka is presented in this section. Table 2 shows the distribution of the usual-resident household population based on the weighted sample by selected characteristics, namely age, sex, marital status, female education and male education. There are 22,554 persons in the weighted sample[2].

The age distribution of the household population shows that the child population (0-14 years) is proportionately larger in rural areas (34 percent) than in urban areas (29 percent). This is as expected, because of higher fertility in rural areas than in urban areas. The overall sex ratio for Karnataka is 983 females per 1000 males. The sex ratio is 996 in rural areas and 960 in urban areas. A lower sex ratio in urban than in rural areas may result from the disproportionate migration of males to urban areas.

The data on marital status show that among women age 15 years or older, 66 percent are currently married, 15 percent are widowed, 2 percent are divorced, separated, or deserted and 18 percent have never been married. A negligible percentage of women are married but have not had *gauna* performed (less than 1 percent). The percentage of never married women is lower in rural areas than in urban areas, as expected, since rural women tend to marry at a younger age than urban women.

The data on educational levels of the population age six and above show that the proportion of females who are illiterate (45 percent) substantially exceeds the proportion of males who are illiterate (26 percent). For both males and females, literacy levels are substantially higher in urban areas than in rural areas. The proportion of females who have completed at least high school is more than three times as high in urban areas (30 percent) as in rural areas (8 percent).

[2] The sample is designed so that the weighted total sample size is the same for households and women as the unweighted total sample size. This equality does not generally hold, however, for subgroups of the population.

Table 2 Background characteristics of the household population

Percent distribution of the usual-resident household population in the survey by background characteristics, Karnataka, 1999

Background characteristic	Urban	Rural	Total
Age			
0-4	8.4	10.0	9.4
5-9	9.7	11.8	11.0
10-14	10.8	12.2	11.8
15-19	11.1	10.9	11.0
20-24	10.5	8.9	9.5
25-29	9.2	8.0	8.4
30-34	7.5	6.4	6.8
35-39	7.3	6.5	6.8
40-44	5.5	5.1	5.2
45-49	5.4	4.7	4.9
50-54	3.7	3.6	3.7
55-59	3.3	3.0	3.1
60-64	2.8	3.5	3.2
65+	4.8	5.5	5.2
Total population	7,832	14,723	22,554
Sex			
Male	51.0	50.1	50.4
Female	49.0	49.9	49.6
Total population	7,832	14,723	22,554
Sex ratio (females per 1,000 males)	960	996	983
Marital status of women age 15+			
Currently married	63.7	66.5	65.5
Married, *gauna* not performed	0.2	0.3	0.2
Separated	0.8	1.3	1.1
Deserted	0.1	0.6	0.5
Divorced	0.3	0.2	0.2
Widowed	13.5	15.9	15.0
Never married	21.3	15.3	17.5
All women age 15+	2,731	4,842	7,573
Female education[1]			
Illiterate	25.9	54.7	44.6
Literate, < primary school complete	14.3	15.8	15.2
Primary school complete	19.2	15.1	16.6
Middle school complete	10.9	6.1	7.8
High school complete	14.8	5.7	8.8
Higher secondary complete and above	14.9	2.6	6.9
All females age 6+	3,439	6,442	9,881
Male education[1]			
Illiterate	12.1	33.6	25.9
Literate, < primary school complete	14.6	19.1	17.5
Primary school complete	18.6	20.3	19.7
Middle school complete	12.6	9.8	10.8
High school complete	18.5	9.5	12.8
Higher secondary complete and above	23.5	7.6	13.3
All males age 6+	3,573	6,456	10,029

Note: This table and all subsequent tables are based on the weighted sample.
[1] In this report, "primary school complete" means 5-7 completed years of education, "middle school complete" means 8-9 completed years of education, "high school complete" means 10-11 completed years of education, and "higher secondary complete and above" means 12 or more completed years of education.

B. CHARACTERISTICS OF RESPONDENTS

Table 3 shows the distribution of respondents (ever-married women age 15–49 years who stayed in the household the night before the interview) by selected background characteristics. The age distribution of respondents shows that 47 percent of respondents in Karnataka are below age 30 and 22 percent are above age 39. Out of 4,374 women interviewed, 92 percent are currently married, 6 percent are widowed, and 3 percent are divorced, separated, or deserted.

Table 3 Background characteristics of respondents

Percent distribution of ever-married women age 15-49 by background characteristics, Karnataka, 1999

Background characteristic	Urban	Rural	Total	Number of women
Age				
15-19	6.1	11.7	9.8	427
20-24	15.6	18.9	17.8	777
25-29	20.5	19.3	19.7	863
30-34	18.0	15.7	16.5	721
35-39	15.4	13.9	14.4	631
40-44	13.3	11.6	12.2	534
45-49	11.0	8.8	9.6	419
Marital status				
Currently married	93.1	91.1	91.8	4,015
Separated	1.6	1.9	1.8	80
Deserted	0.2	0.9	0.7	29
Divorced	0.3	0.1	0.2	7
Widowed	4.8	5.9	5.5	242
Employment status				
Working in family farm/business	5.4	22.6	16.6	726
Employed by someone else	17.4	36.2	29.6	1,296
Self-employed	7.8	4.8	5.8	254
Not worked in last 12 months	69.4	36.5	47.9	2,097
Missing	0.1	0.0	0.0	1
Education				
Illiterate	31.7	67.7	55.2	2,414
Literate, < primary school complete	3.7	4.8	4.4	192
Primary school complete	17.3	12.7	14.3	626
Middle school complete	9.5	5.0	6.6	289
High school complete	19.2	6.6	11.0	482
Higher secondary complete and above	18.6	3.1	8.5	371
Number of women	1,523	2,851	4,374	4,374

Table 3 also shows that more than half (52 percent) of ever-married women in Karnataka are doing work other than their own housework. Among all women, 17 percent work either on a family farm or in a family business, 30 percent are employed by someone else, and 6 percent are self-employed. The proportion working is much higher in rural areas (63 percent) than in urban areas (31 percent); however, the proportion of employed women working for someone else is the same (57 percent) in both urban and rural areas.

Regarding educational qualifications, 55 percent of respondents are illiterate, and only 20 percent have completed high school or gone on to a higher level. Urban respondents are substantially better educated than rural respondents. For example, the percentage of respondents who have completed at least high school is 38 percent in urban areas and only 10 percent in rural areas.

C. WOMEN'S AUTONOMY

NFHS-2 also provides information on selected indicators of women's autonomy and status. The indicators in Table 4 pertain to women's participation in household decision making, freedom of movement and access to money. Only 8 percent of respondents are not involved in any household decisionmaking at all. Regarding participation in particular types of decisions, 88 percent are involved in decisions about cooking, 49 percent in decisions about their own health care, 47 percent in decisions about purchases of jewellery and other major items, and 45 percent in decisions about going to stay with parents or siblings. Regarding freedom of movement, 43 percent of respondents do not need permission to go to the market, and 34 percent do not need permission to visit relatives or friends. Sixty-seven percent of the respondents are allowed to have at least some money that they can spend as they wish.

Table 4 also shows differences in women's autonomy by background characteristics. In general, autonomy as measured by women's participation in decisionmaking, freedom of movement and access to money, increases with age. A higher percentage of urban women than rural women are involved in all types of decisionmaking. Urban women, also have substantially greater freedom of movement and greater access to money compared to rural women. According to employment status, it is only women who are self-employed who consistently have greater autonomy than women in other employment categories. With the exception of participation in decisions about cooking, participation in all other types of decisions tends to increase with education. Also educated women have greater freedom of movement and access to money than less educated women. Sikh women are more likely than Hindu or Muslim women to participate in each of the different decisions, to have freedom of movement and access to money. Participation in any decision making does not vary much by caste/tribe status; however, women belonging to the scheduled tribes are less likely than other women to have access to money, and scheduled caste women are less likely than other women to participate in most decisions and have lower freedom of movement.

Table 4 Women's autonomy

Percentage of ever-married women involved in household decisionmaking, percentage of women with freedom of movement and percentage of women with access to money by background characteristics, Karnataka, 1999

Background characteristic	Percentage not involved in any decision-making	Percentage involved in decisionmaking about:				Percentage who do not need permission to:		Percentage with access to money	Number of women
		Cooking	Own health care	Purchase of jewellery, etc.	Staying with parents/ siblings	Go to the market	Visit friends/ relatives		
Age									
15-19	20.7	70.5	35.1	35.4	35.3	26.1	21.4	46.6	427
20-24	13.6	81.4	38.9	36.4	35.2	34.4	28.3	62.3	777
25-29	7.9	88.8	46.5	44.5	42.3	41.0	32.7	67.1	863
30-34	5.4	92.6	52.5	48.6	45.2	45.1	32.7	68.7	721
35-39	4.4	93.7	57.1	55.9	52.0	48.6	39.6	72.0	631
40-44	1.9	96.0	59.4	57.7	52.5	54.8	46.6	75.8	534
45-49	3.8	93.7	58.2	56.8	52.5	53.5	41.6	74.4	419
Residence									
Urban	6.9	89.1	55.5	54.4	50.7	52.9	41.2	79.5	1,523
Rural	8.8	88.1	45.9	43.5	41.1	37.7	30.7	60.3	2,851
Employment status									
Working in family farm/business	10.3	86.5	49.0	46.8	43.0	39.4	33.8	60.4	726
Employed by someone else	6.1	90.7	49.3	48.4	45.8	41.3	33.7	63.4	1,296
Self-employed	4.3	91.3	59.0	56.3	57.1	54.3	44.6	80.4	254
Not worked in last 12 months	9.1	87.3	48.1	45.6	42.6	43.9	33.7	69.9	2,097
Education									
Illiterate	8.0	89.3	45.7	44.0	40.9	38.6	31.3	59.9	2,414
Lit., < middle school complete	6.8	89.5	52.3	48.6	45.7	41.7	32.4	68.3	818
Middle school complete	11.1	84.5	52.1	50.3	47.1	45.9	32.7	72.9	289
High school complete and above	8.9	86.1	55.4	54.3	52.4	55.7	45.3	83.7	853
Religion									
Hindu	8.1	88.4	49.7	47.2	44.4	44.6	35.4	66.9	3,741
Muslim	9.2	87.3	42.3	44.5	40.9	26.7	23.1	62.0	492
Sikh	4.8	91.3	60.3	57.9	59.2	56.7	43.4	86.5	105
Other	(6.0)	(91.1)	(68.9)	(62.9)	(56.9)	(57.6)	(54.7)	(83.2)	35
Caste/tribe									
Scheduled caste	8.4	88.9	43.4	43.2	39.5	38.7	32.3	64.4	704
Scheduled tribe	7.1	88.6	46.6	43.9	42.7	46.2	35.4	53.8	252
Other backward class	7.4	89.2	52.9	49.8	47.2	45.1	35.0	67.9	1,809
Other[1]	8.8	87.6	48.4	46.9	44.2	42.1	34.4	69.7	1,559
Missing	(18.2)	(75.8)	(38.6)	(40.5)	(34.4)	(38.4)	(34.4)	(54.7)	49
Total	8.1	88.4	49.3	47.3	44.5	43.0	34.3	67.0	4,374

Note: Total includes 1 woman with missing information on employment status, who is not shown separately.
( ) Based on 25-49 unweighted cases
[1]Women who do not belong to a scheduled caste, a scheduled tribe, or an other backward class.

D. FERTILITY AND REPRODUCTIVE PREFERENCES

Fertility levels have been estimated from the birth history data collected for each eligible woman in the survey. The fertility estimates pertain to the three-year period immediately preceding the survey, which, in Karnataka, corresponds roughly to the period from 1996 to 1998. Estimates of age-specific fertility rates and total fertility rates (TFR) are shown in Table 5 and Figure 1.

The NFHS-2 estimate of the TFR for the state as a whole is 2.13 children per woman, which is the average number of children that would be born to a woman if she experienced current age-specific fertility rates (for the three-year period before the survey) as she lived through her reproductive years, ages 15–49. The NFHS-2 estimate for TFR is lower than the Sample Registration System (SRS) estimate of 2.5 children which is the average of the SRS estimates for the years 1996 and 1997. Under the age schedule of fertility estimated from NFHS-2 in Karnataka, a rural woman would have, on average, 0.36 children more in her childbearing years than an urban woman.

Table 5 also shows how fertility changed between NFHS-1 and NFHS-2. Over the 6 year period between the two surveys, fertility has declined in Karnataka from 2.85 children in 1990–92 to 2.13 in 1996–98. All age groups in both urban and rural areas show declines in fertility, except the age groups 40–44 in urban areas and 45–49 in rural areas. According to NFHS-2, fertility in urban areas (TFR=1.89) in Karnataka is now below replacement level, although the fertility in rural areas (TFR=2.25) has yet to reach replacement level.

Table 5 Current fertility

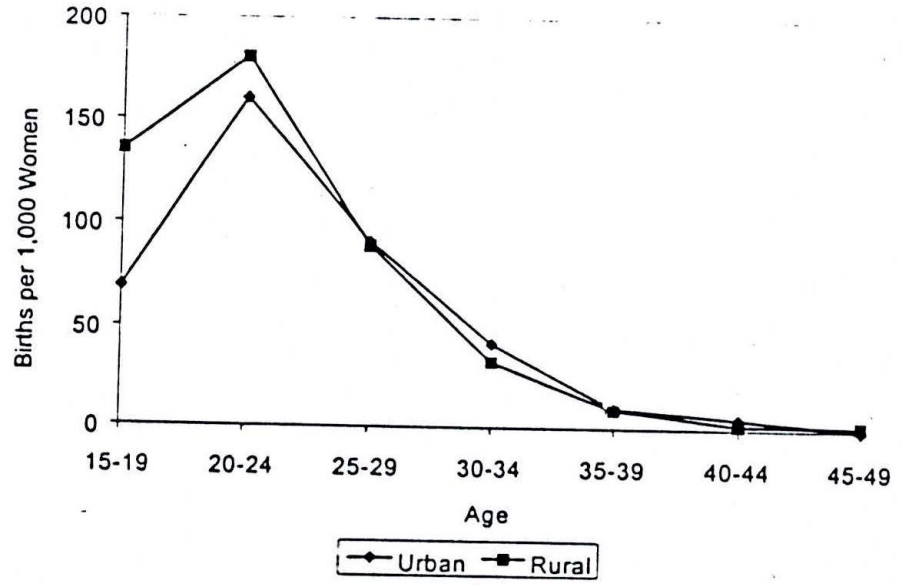
Age-specific and total fertility rates (TFR) for the three-year period preceding the survey, NFHS-1 and NFHS-2, Karnataka

	Age-specific fertility rates					
	Urban		Rural		Total	
Age	NFHS-1 1990-92	NFHS-2 1996-98	NFHS-1 1990-92	NFHS-2 1996-98	NFHS-1 1990-92	NFHS-2 1996-98
15-19	0.094	0.069	0.147	0.135	0.129	0.112
20-24	0.169	0.160	0.226	0.180	0.206	0.172
25-29	0.127	0.091	0.138	0.089	0.134	0.090
30-34	0.057	0.042	0.069	0.033	0.064	0.037
35-39	0.020	0.010	0.026	0.009	0.024	0.009
40-44	0.002	0.005	0.009	0.002	0.006	0.003
45-49	0.009	–	0.002	0.002	0.005	0.001
TFR 15-49	2.38	1.89	3.08	2.25	2.85	2.13
TFR 15-44	2.34	1.89	3.07	2.24	2.83	2.12

The age pattern of fertility reveals a peak in the age group 20–24 years. This is true for both urban and rural areas. Fertility shows a sharp decline beyond the age of 25 years. The age-specific fertility rates are higher in rural areas than urban areas for the younger age groups (below 25 years), but lower in rural areas than urban areas for most of the older age groups. The contribution to fertility by older women (particularly by women age 35 years or older) is marginal in both urban areas and rural areas. Specifically, the proportion of total fertility due to fertility at ages 35 and older is 4 percent in urban areas and 3 percent in rural areas.

Figure 1

Age-specific Fertility Rates by Residence



Note: Rates are for the three years preceding the survey

NFHS-2, Karnataka, 1999

Future fertility preferences of currently married women, by the number of living children that a woman has, are shown in Table 6 and Figure 2. Overall, 15 percent of women do not want any more children, and an additional 58 percent cannot have another child because either the wife or the husband has been sterilized or the woman says she cannot get pregnant. Only 26 percent of all women say they would like to have another child, and of those who do want another child 46 percent want to wait at least two years before the birth of the next child. The results also show that the desire to stop childbearing increases rapidly with the number of living children. Only 9 percent of women with no living children do not want any (more) children or cannot have children

because of a sterilization operation or for other reasons. This figure rises to 84 percent for women with two living children and 96 percent for women with four or more living children. A small number of women (0.3 percent) say that the decision about having any (more) children is up to God.

Table 6 Reproductive preferences by number of living children

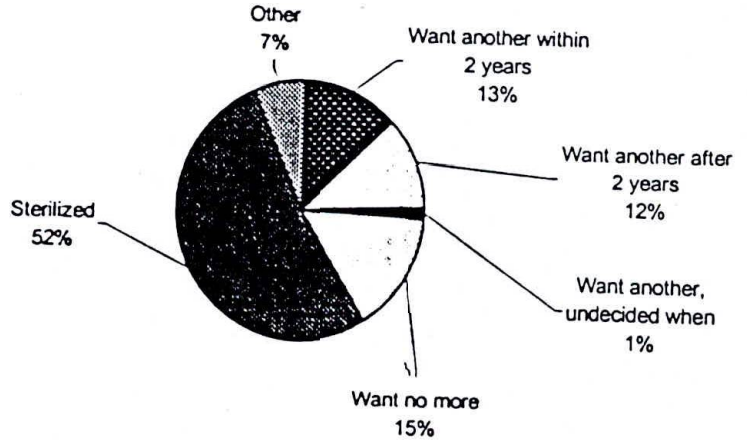
Percent distribution of currently married women by desire for children, according to number of living children, Karnataka, 1999

Desire for children	Number of living children					
	None	One	Two	Three	Four or more	Total
Want another						
Within 2 years	57.6	25.3	6.1	1.8	1.6	12.8
After 2 years	27.3	33.9	8.3	2.8	1.1	11.7
Undecided when	3.7	1.5	1.1	0.7	0.5	1.2
Undecided	2.1	2.6	0.7	0.3	0.2	1.0
Up to God	0.7	0.2	0.1	0.2	0.8	0.3
Want no more	3.2	23.3	19.7	9.7	15.1	15.3
Sterilized	0.5	8.6	60.4	80.1	71.0	52.2
Declared infecund	4.9	4.7	3.5	4.3	9.7	5.4
Missing	–	–	0.1	–	–	–
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	428	662	1,137	880	907	4,015

–Less than 0.05 percent

Figure 2

Fertility Preferences Among Currently Married Women Age 15-49



NFHS-2, Karnataka, 1999

E. FAMILY PLANNING

In NFHS-2, women were asked about their knowledge of specific contraceptive methods and whether they had ever used each of the methods they knew about. In addition, they were asked whether they were currently using a method. and, if yes, which method they were using. Women were also asked about their source of contraceptives and the kind of care they received from health and family planning workers.

Knowledge of family planning

In the contraception section of the NFHS-2 Woman's Questionnaire, women were asked whether they had heard of each of seven contraceptive methods. If a respondent did not know a method just by its name, the interviewer read a description of the method to her. For each method about which a woman was aware, she was asked if she had ever used that method.

Table 7 and Figure 3 contain information on currently married women's awareness and use of specific methods. Knowledge of at least one modern method of family planning (either spontaneously or after probing) is almost universal in urban areas as well as in rural areas.

Table 7 Knowledge, ever use and current use of family planning methods

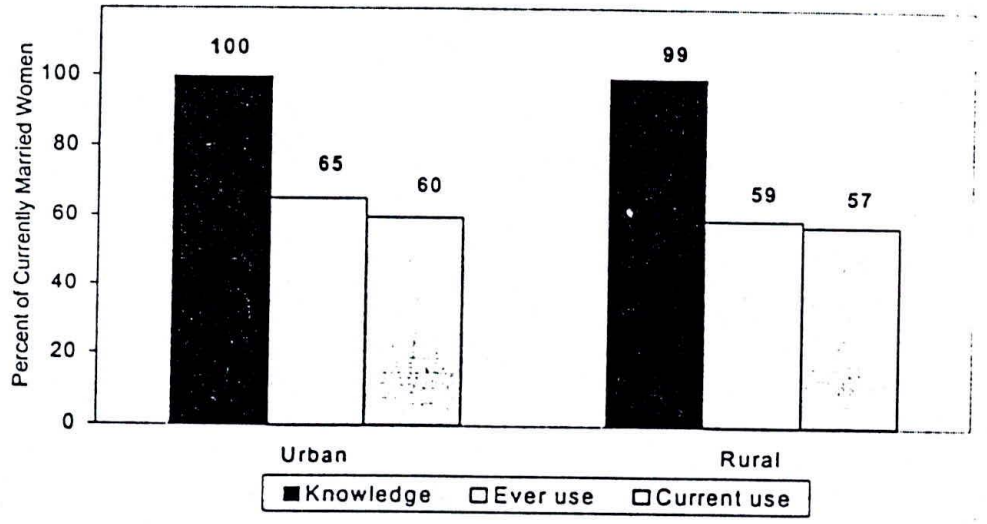
Percentage of currently married women by knowledge, ever use and current use of family planning methods, Karnataka, 1999

Contraceptive method	Percentage who know method	Percentage who ever used method	Percentage currently using method
	URBAN		
Any method	99.7	65.4	59.9
Modern method	99.7	62.3	56.4
Pill	83.3	5.4	1.0
IUD	86.0	14.5	5.0
Condom	75.3	5.4	2.4
Female sterilization	99.4	47.1	47.1
Male sterilization	86.7	1.1	0.9
Traditional method	56.6	6.4	3.4
Rhythm/safe period	55.8	5.6	3.1
Withdrawal	17.7	1.4	0.3
Other method[1]	1.1	0.2	0.1
Number of women	1,418	1,418	1,418
	RURAL		
Any method	99.2	59.0	57.4
Modern method	99.1	58.1	56.6
Pill	61.1	1.9	0.4
IUD	68.0	4.3	1.5
Condom	37.8	0.9	0.3
Female sterilization	98.7	53.9	53.9
Male sterilization	71.0	0.5	0.5
Traditional method	33.9	2.1	0.7
Rhythm/safe period	33.7	1.9	0.6
Withdrawal	3.3	0.4	0.1
Other method[1]	1.1	0.4	0.1
Number of women	2,597	2,597	2,597
	TOTAL		
Any method	99.4	61.3	58.3
Modern method	99.3	59.6	56.5
Pill	69.0	3.1	0.6
IUD	74.4	7.9	2.8
Condom	51.1	2.5	1.0
Female sterilization	99.0	51.5	51.5
Male sterilization	76.5	0.7	0.7
Traditional method	41.9	3.7	1.7
Rhythm/safe period	41.5	3.2	1.5
Withdrawal	8.4	0.7	0.2
Other method[1]	1.1	0.3	0.1
Number of women	4,015	4,015	4,015

[1]"Other method", which in the questionnaire was a write-in (not pre-coded) category, may be either modern or traditional.

Figure 3

Knowledge and Use of Family Planning Methods Among Currently Married Women Age 15-49



NFHS-2, Karnataka, 1999

Women are most familiar with female sterilization (99 percent), followed by male sterilization (77 percent), the IUD (74 percent), the pill (69 percent) and then the condom (51 percent). Each of these methods is known by at least 75 percent of women in urban areas and 61 percent of women in rural areas, except for the condom, which is known by only 38 percent of women in rural areas. At least one traditional method of contraception is known by 42 percent of women overall, 57 percent of women in urban areas and 34 percent of women in rural areas. The rhythm/safe period method is better known than withdrawal.

Ever use of family planning

Among currently married women age 15–49 in Karnataka, 61 percent have ever used a contraceptive method: 60 percent have used a modern method and 4 percent have used a traditional method. Among modern methods, female sterilization is the most popular (52 percent), followed by the IUD (8 percent). The pill and the condom have each been used by 3 percent of currently married women. Male sterilization is the least popular (1 percent). Among traditional methods, 3 percent of respondents have used the rhythm/safe period method, and 1 percent have used withdrawal. Ever-use of modern methods is 62 percent in urban areas and 58 percent in rural areas.

Current use of family planning

Regarding current use of contraception, Table 7 and Figure 3 show that 58 percent of currently married women age 15–49 are using some method of contraception, 57 percent use a modern method, and 2 percent use a traditional method. At the time of NFHS-1, 49 percent of currently married women were using some method of contraception, 48 percent were using a modern method and 2 percent were using a traditional method. A comparison of NFHS-1 and NFHS-2 data shows that the use of modern methods has increased by 19 percent during the 6 years between the two surveys.

In Karnataka, as in almost all other Indian states, female sterilization is the most popular contraceptive method and is used by 52 percent of currently married women. The next most popular method, the IUD, by contrast, is being used by only 3 percent of women. Male sterilization, oral contraceptives and condoms are each being used by no more than 1 percent of women. Among traditional methods, the rhythm/safe period method is being used by 2 percent of women and withdrawal by less than 1 percent.

There are some urban-rural differences in current contraceptive use. Contraceptive prevalence is only slightly higher in urban areas (60 percent) than in rural areas (57 percent). The prevalence, however, of modern spacing methods like the pill, the condom and the IUD, though still low, is substantially higher in urban areas (8 percent) than in rural areas (2 percent). Traditional-method use is also higher in urban areas than in rural areas.

Differences in rates of current contraceptive use for population subgroups are shown in Table 8. The overall rate of use (any method) increases steadily by age of respondent through age 30–34 (where it reaches 78 percent) and declines thereafter. Among modern methods, female sterilization is consistently the single most popular method at all ages. Women who had completed at least high school were much more likely to be using each of the modern spacing methods or a traditional method than women in any other educational category, although, overall, they were less likely to be using any contraception than women in most other educational categories. The largest differentials in current use are found by number of living children. Current use of contraception, increases steadily from 3 percent for women with no living children to 82 percent for women with three living children. There is also a clear shift from reliance on temporary methods among women with one or no living child (who may be primarily interested in spacing children) to female sterilization among women with two or more living children (who are likely to have achieved their desired family size).

Table 8 Current use of family planning methods by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Karnataka, 1999

Background characteristic	Any method	Modern method	Pill	IUD	Condom	Female sterilization	Male sterilization	Traditional method	Rhythm/ safe period	Withdrawal	Other method [1]	Not using any method	Total percent	Number of women
Age														
15-19	5.6	5.1	0.5	1.5	0.3	2.8	--	0.5	0.2	0.2	--	94.4	100.0	414
20-24	36.6	35.9	0.7	3.7	1.0	30.6	--	0.7	0.5	0.1	--	63.4	100.0	744
25-29	66.3	64.2	0.5	4.2	1.3	58.1	0.1	1.9	1.8	0.1	0.2	33.7	100.0	811
30-34	77.5	75.8	1.2	3.7	1.4	69.5	--	1.7	1.5	0.2	--	22.5	100.0	669
35-39	76.9	73.3	0.6	2.5	1.6	68.1	0.6	3.4	3.2	0.2	0.2	23.1	100.0	564
40-44	72.1	69.1	--	0.7	0.7	65.8	1.9	3.1	2.7	0.4	--	27.9	100.0	455
45-49	63.6	63.3	0.3	0.3	0.6	58.4	3.7	0.3	0.3	--	--	36.4	100.0	357
Residence														
Urban	59.9	56.4	1.0	5.0	2.4	47.1	0.9	3.4	3.1	0.3	0.1	40.1	100.0	1,418
Rural	57.4	56.6	0.4	1.5	0.3	53.9	0.5	0.7	0.6	0.1	0.1	42.6	100.0	2,597
Education														
Illiterate	58.7	58.1	0.2	0.2	0.1	56.7	0.8	0.5	0.4	0.1	0.1	41.3	100.0	2,154
Lit., < middle school complete	62.1	61.9	0.7	2.0	0.4	58.3	0.4	0.3	0.3	--	--	37.9	100.0	756
Middle school complete	51.7	51.3	0.4	4.0	0.8	46.2	--	0.4	--	0.4	--	48.3	100.0	279
High school complete and above	56.0	49.4	1.5	9.7	4.1	33.6	0.6	6.5	6.0	0.5	--	44.0	100.0	827
Number of living children														
None	3.1	2.1	0.7	0.2	0.7	0.5	--	1.0	0.7	0.2	--	96.9	100.0	428
1	24.0	19.6	0.9	7.8	2.3	8.4	0.1	4.4	3.7	0.8	--	76.0	100.0	662
2	69.0	67.0	0.5	4.4	1.6	59.7	0.7	2.0	1.9	0.1	--	31.0	100.0	1,137
3	82.1	81.6	0.3	0.8	0.4	79.4	0.7	0.5	0.5	--	--	17.9	100.0	880
4+	72.9	71.8	0.6	0.1	0.2	69.8	1.2	0.8	0.8	--	0.3	27.1	100.0	907
Total 15-49	58.3	56.5	0.6	2.8	1.0	51.5	0.7	1.7	1.5	0.2	0.1	41.7	100.0	4,015
Total 15-44	57.8	55.9	0.6	3.0	1.1	50.8	0.4	1.8	1.6	0.2	0.1	42.2	100.0	3,658

-- Less than 0.05 percent

[1] "Other method", which in the questionnaire was a write-in (not pre-coded) category, may be either modern or traditional.

Source of methods

In NFHS-2, women who reported current use of a modern method of contraception at the time of the survey were asked where they had obtained the method the last time. Results are presented in Table 9.

Table 9 Source of modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by source of method, according to specific method, Karnataka, 1999

	Contraceptive method				
Source of method	IUD	Condom	Female sterilization	Male sterilization	All modern methods[1]
		URBAN			
Public medical sector	50.2	(9.3)	77.1	*	70.7
NGO/Trust hospital/clinic	–	(–)	1.2	*	1.0
Private medical sector	49.8	(48.7)	21.7	*	25.8
Shop	–	(36.1)	–	*	2.2
Don't know[2]	–	(5.9)	–	*	0.2
Total percent	100.0	100.0	100.0	100.0	100.0
Number of users	71	34	668	13	800
		RURAL			
Public medical sector	(60.0)	*	94.9	*	93.3
NGO/Trust hospital/clinic	(–)	*	0.3	*	0.3
Private medical sector	(40.0)	*	4.8	*	6.1
Shop	(–)	*	–	*	0.2
Don't know[2]	(–)	*	–	*	0.1
Total percent	100.0	100.0	100.0	100.0	100.0
Number of users	40	8	1,400	13	1,470
		TOTAL			
Public medical sector	53.7	(12.4)	89.1	(80.7)	85.3
NGO/Trust hospital/clinic	–	(–)	0.6	(–)	0.5
Private medical sector	46.3	(46.7)	10.3	(19.3)	13.1
Shop	–	(34.0)	–	(–)	0.9
Don't know[2]	–	(7.0)	–	(–)	0.1
Total percent	100.0	100.0	100.0	100.0	100.0
Number of users	111	42	2,068	26	2,270

Note: NGO denotes a nongovernmental organization.
( ) Based on 25-49 unweighted cases
* Percentage not shown, based on fewer than 25 unweighted cases
– Less than 0.05 percent
[1]In this table, "all modern methods" refer to the four modern methods indicated, plus the pill which is not shown separately due to small number of cases.
[2]For pill and condom, includes women who say their husband or a friend or other relative obtained the method, but they do not know the original source of supply.

For Karnataka, overall, the majority of couples (85 percent) obtain their method from a public-sector source. Private-sector medical institutions provide methods to another 13 percent of users, and 1 percent of users obtain their supply from a shop and other sources.

Substantial differentials in the source of methods are found between urban and rural areas. Although the public sector is the major source in both urban and rural areas, 93 percent of rural users obtain their method from a public sector source compared with 71 percent of users in urban areas. Notably, however, the private medical sector is almost as important a source for IUDs as the public sector, in both urban and rural areas. Also, the majority of users of the condom obtain their supply from the private medical sector (47 percent) or shops (34 percent).

Quality of family planning services

One of the most important factors influencing family planning use is the quality of family planning services, which has been receiving increasing emphasis in the government's reproductive and child health care efforts. Table 10 shows, by urban-rural residence, the percentage of current users of contraception who were told about other methods by the person who motivated them to use their current method. The table also shows the percentage of current users who were told about side effects or other problems by a health or family planning worker at the time of accepting the method, and the percentage who received follow-up services from any source after accepting the method.

Table 10 Quality of family planning services

Percentage of current users of modern contraceptive methods who were told about other methods, who were told about side effects or other problems and who received follow-up services by residence, Karnataka, 1999

Residence	Percentage who were told about other methods by motivator[1]	Number of users[1]	Percentage who were told about side effects or other problems with current method[2]	Percentage who received follow up after acceptance of current method	Number of users
Urban	12.2	342	38.5	81.4	800
Rural	5.1	828	35.9	82.5	1,470
Total	7.2	1,170	36.8	82.1	2,270

[1]Excludes women who were self motivated.
[2]By a health and family planning worker at the time of accepting the current method

Among all current users, 7 percent were told about other methods by their motivator. The proportion of urban women told about other methods by their motivator is twice as high (12 percent) in urban areas as in rural areas (5 percent). Thirty-seven percent of women were told about side effects or other problems associated with their current method by a health or family planning worker at the time of accepting their method, and 82 percent received follow-up services after accepting the method. These percentages vary little by urban-rural residence.

F. QUALITY OF CARE

Table 11 shows additional quality-of-care indicators that pertain to the last home visit by a health practitioner or to the last visit by the respondent to a health facility during the 12 months preceding the survey, specified by source of services received (public or private/NGO[3]) and by type of visit (home visit or visit to a health facility). In this table, the visit could be for any health-related reason or for family planning or for both. Regarding home visits, 10 percent were for family planning only, 81 percent were for health only, and 6 percent were for both family planning and health. Eighty-nine percent of respondents said that the health worker spent enough time with them and 79 percent said that the worker talked to them nicely.

Regarding visits to a health facility, 99 percent were for health only, 1 percent were for both health and family planning and less than 1 percent were for family planning only. Almost all respondents actually received the service for which they went (99 percent). The median waiting before receiving service is 29 minutes and is about the same at both public sector and private/NGO sector facilities. In all other respects, however, the private/NGO sector facilities are rated better than public sector facilities. The proportion of respondents reporting that the health practitioner spoke nicely to them is higher in the private/NGO sector (80 percent) than in the public sector (68 percent). The proportion reporting that their need for privacy was respected is also higher in the private/NGO sector (92 percent) than in the public sector (83 percent). Finally, the proportion that rate the facility as very clean is considerably higher in the private/NGO sector (77 percent) than in the public sector (59 percent).

[3] An NGO is a nongovernmental organization.

Table 11 Quality of care

Quality-of-care indicators for last home visit/visit to a health facility within the last 12 months by public/private source of service and by type of visit, Karnataka, 1999

Quality indicator	Source of most recent service received		
	Public sector	Private sector/NGO	Total
HOME VISIT			
Percentage who received different services			
Family planning only	9.6	*	9.5
Health only	81.0	*	81.0
Both	5.7	*	5.8
Only other services received	3.7	*	3.6
Percentage who said worker spent enough time with her	88.8	*	88.8
Percentage who said worker talked to her			
Nicely	78.9	*	79.1
Somewhat nicely	20.4	*	20.2
Not nicely	0.7	*	0.7
Number receiving home visit	744	7	751
VISIT TO A HEALTH FACILITY			
Percentage who went for different services			
Family planning only	0.7	0.3	0.4
Health only	98.1	99.3	98.9
Both	1.1	0.4	0.7
Percentage who received service they went for	98.9	99.5	99.2
Median waiting time (minutes)	29.7	29.2	29.4
Percentage who said the staff spent enough time with her	92.2	96.8	95.1
Percentage who said staff talked to her			
Nicely	68.0	80.3	75.8
Somewhat nicely	30.3	19.1	23.2
Not nicely	1.7	0.5	0.9
Missing	–	0.1	–
Percentage who said staff respected her need for privacy[1]	83.1	92.3	89.0
Percentage who rated facility as			
Very clean	58.9	76.8	70.2
Somewhat clean	38.5	22.5	28.4
Not clean	2.5	0.7	1.3
Missing	0.1	0.1	0.1
Number visiting a health facility	1,119	1,909	3,028

Notes: NGO denotes a nongovernmental organization. Cases where the source of service was neither public sector nor private sector/NGO are excluded from the table.
*Percentage not shown, based on fewer than 25 unweighted cases
[1]Based on women who said they needed privacy

G. MATERNAL CARE

Safe motherhood and child survival constitute one of the most important programmes run by the Government of India. Proper care during the antenatal period and during delivery is crucial for the good health of both the mother and the child. In NFHS-2, respondents who gave birth to at least one child during the three years preceding the survey were asked a series of questions about maternal care and services received for each of the two most recent births during that period. Results from these questions are shown in Tables 12 and 13.

Table 12 shows that, by and large, women in Karnataka made substantial use of antenatal care services for their births during the three years preceding NFHS-2. Seventy-five percent of the women received at least two tetanus toxoid injections during pregnancies leading to live births in the last three years. Seventy-eight percent of women received any iron/folic acid (IFA) tablets or syrup and 74 percent received the recommended three-month course. Overall, 86 percent of women received at least one antenatal check-up during their pregnancy. Additionally, for 82 percent of pregnancies, women received antenatal check-ups outside the home. For 70 percent of the pregnancies, women visited doctors, while for another 11 percent of pregnancies they visited other health practitioners. For 5 percent of pregnancies, women received a check-up only at home.

Analysis of the data by current age of mother shows that the level of utilization of antenatal services is higher among women age 20–34 than among other women. In keeping with this finding, the level of utilization is also higher among women of lower parities than among women of higher parities.

Analysis by place of residence shows that antenatal services are utilized more by urban women than by rural women. Similarly, more-educated women are much more likely to utilize antenatal care services than less-educated women. Education is also positively associated with the likelihood of getting care from doctors. The proportion who received antenatal care from a doctor increases from 54 percent for illiterate women to 95 percent for women who have completed at least high school.

Another important aspect of maternal and child care services is the encouragement of institutional deliveries and conducting deliveries under the overall supervision of trained health professionals, in order to ensure safe delivery and better health of the mother and child. Accordingly, NFHS-2 asked women where they gave birth for the two most recent births that occurred during the three years preceding the survey and who assisted at the delivery.

Table 12 Antenatal care

Percentage of births whose mothers received various types of antenatal services among births in the three years preceding the survey by background characteristics, Karnataka, 1999

Background characteristic	Received 2 or more doses of tetanus toxoid	Received iron and folic acid tablets or syrup	Received iron and folic acid tablets or syrup for 3 or more months	Received antenatal check-up only through home visit	Received antenatal check-up outside home from[1]			Number of births
					Doctor	Other health professional	Other person	
Mother's current age								
15-19	69.4	73.6	68.5	4.2	64.6	14.1	–	254
20-34	76.6	79.4	76.0	5.0	72.0	10.5	0.1	989
35-49	(67.6)	(70.3)	(67.5)	(2.6)	(62.3)	(10.6)	(--)	37
Residence								
Urban	85.1	83.4	80.5	1.2	86.7	6.5	–	398
Rural	70.3	75.6	71.4	6.4	62.9	13.3	0.1	882
Mother's education								
Illiterate	62.4	67.7	63.4	8.0	53.7	15.1	–	672
Lit., < middle school complete	83.9	86.7	83.3	2.4	83.2	9.8	0.5	211
Middle school complete	81.8	86.4	79.8	–	82.0	10.7	–	110
High school complete and above	94.7	92.6	90.8	1.0	95.1	3.2	–	287
Birth order								
1	86.5	83.0	80.1	0.9	82.0	10.3	–	462
2-3	71.8	78.0	72.5	5.5	69.8	10.5	–	580
4-5	64.6	72.7	72.7	11.6	51.4	15.5	–	172
6+	48.4	57.3	52.7	8.7	42.5	11.8	1.5	67
Total	74.9	78.0	74.2	4.8	70.3	11.2	0.1	1,280

Note: Table includes only the two most recent births in the three years preceding the survey.
( ) Based on 25-49 unweighted cases
– Less than 0.05 percent
[1]Includes all women who received an antenatal check-up outside the home, even if they also received a check-up at home from a health worker. If more than one source was mentioned, only the provider with the highest qualification is considered.

Table 13 shows that 51 percent of deliveries occurred in institutions such as government-operated district, tehsil (or taluk), town or municipal hospitals, primary health centres, private hospitals and private nursing homes. The majority of institutional deliveries (54 percent) were conducted in government-operated facilities, where 55 percent were attended by doctors and 45 percent by paramedical staff. By contrast, 87 percent of deliveries in private institutions were attended by doctors.

Noninstitutional deliveries constituted 48 percent of all deliveries. Only 17 percent of the noninstitutional deliveries were attended by a doctor or other health professional. The large majority (83 percent) were attended by other persons, including traditional birth attendants, relatives or friends.

An examination of the data on assistance at delivery by background characteristics of respondents reveals, as expected, that delivery in institutions is more prevalent among urban women than rural women, and among more educated women than less educated women. Delivery in institutions increases with age of mother. Only 44 percent of deliveries of women age 15–19 took place in institutions compared with 57 percent of deliveries of women age 35–49; however, institutional deliveries fall sharply with birth order. Seventy percent of first births were delivered in institutions compared with 21 percent of births at order 6 or higher.

Table 13 Assistance at delivery

Percentage who received assistance at delivery among births in the three years preceding the survey by place of delivery, type of assistance and background characteristics, Karnataka, 1999

Background characteristic	Delivered in institution				Not delivered in institution				Don't know/ missing	Total percent	Number of births
	Public		Private								
	Doctor	Other	Doctor	Other	Doctor	Other health professional	TBA[1]	Other			
Mother's current age											
15-19	15.8	13.7	10.2	4.3	3.1	8.9	15.6	28.1	0.4	100.0	254
20-34	15.2	12.2	22.4	2.8	1.5	5.9	15.1	24.1	0.7	100.0	989
35-49	(13.6)	(10.8)	(30.0)	(2.6)	(–)	(–)	(10.4)	(29.8)	(2.7)	100.0	37
Residence											
Urban	22.0	16.6	36.4	3.8	1.3	6.3	5.3	8.3	--	100.0	398
Rural	12.3	10.6	13.0	2.8	2.0	6.3	19.5	32.5	1.0	100.0	882
Mother's education											
Illiterate	12.3	11.2	6.7	2.1	1.9	6.8	21.4	36.5	1.0	100.0	672
Lit., < middle school complete	19.1	16.2	20.7	4.7	1.0	5.2	14.1	18.4	0.5	100.0	211
Middle school complete	19.1	20.7	26.7	1.9	–	5.4	9.2	16.2	0.9	100.0	110
High school complete and above	18.2	9.5	49.0	4.9	2.7	6.2	3.2	6.3	–	100.0	287
Birth order											
1	22.1	14.5	28.4	4.5	2.1	5.8	8.9	13.3	0.4	100.0	462
2-3	13.1	11.9	17.9	2.3	1.7	6.7	15.6	29.9	0.9	100.0	580
4-5	6.4	10.5	11.2	2.9	0.6	6.8	24.9	36.0	0.6	100.0	172
6+	10.2	8.8	7.5	1.6	2.8	4.5	28.0	35.1	1.5	100.0	67
Total	15.3	12.5	20.2	3.1	1.8	6.3	15.1	25.0	0.7	100.0	1,280

Note: Table includes only the two most recent births in the three years preceding the survey.
( ) Based on 25-49 unweighted cases
-- Less than 0.05 percent
[1]TBA is a traditional birth attendant.

H. IMMUNIZATION OF CHILDREN

The Expanded Programme on Immunization (EPI) was initiated in India in 1978. Consistent with guidelines issued by the World Health Organisation (WHO), this programme has the objective of immunizing children against six preventable killer diseases, tuberculosis, polio, diphtheria, pertussis (whooping cough), tetanus, and measles. One dose of BCG vaccine for tuberculosis, one dose of measles vaccine, three doses of DPT vaccine, and three doses of polio drops should be given by the time a child is 12 months old. Booster doses of DPT and polio vaccines may be given after 12 months of age.

In order to step up the pace of immunization, the Government of India initiated a special programme called the Universal Immunization Programme (UIP) in 1985–86. This scheme has been introduced in every district of the country, and the target is to achieve 100 percent immunization coverage. Pulse Polio Immunization Campaigns (PPIC) began in December 1995 as part of a major national effort to eliminate polio.

An immunization card is issued for each child who is brought for immunization. This card indicates the particulars of each type of vaccination (number of doses and date of each dose) received by a child. Caregivers are instructed to bring the card with them for updating each time a child is vaccinated. Sometimes they forget to bring the card, however, in which case the card may not include all the vaccinations received.

In NFHS-2, respondents were asked whether they had an immunization card for each child under 3 years of age. If the card was available, the interviewer was instructed to copy the dates of each vaccination onto the questionnaire. Women were then asked about any vaccinations received by the child that were not listed on the card. If a child never received an immunization card, or if the mother was unable to show the card, the purpose of the various vaccinations was explained to the mother, and she was asked if the child received those vaccinations.

Table 14 and Figure 4 present findings on vaccinations received by respondents' children age 12–23 months, an age by which children should have received all vaccinations scheduled for infancy (i.e., for the first 12 months of life). Out of 426 children age 12–23 months, mothers showed an immunization card for 41 percent of children. Based on information recorded on the card or reported by the mother, 60 percent of children are fully vaccinated, and 8 percent have not received any of the vaccinations. These results show that the immunization status of children in Karnataka is nowhere near 100 percent, and there is a long way to go to achieve universal immunization coverage of young children.

Table 14 Vaccinations by background characteristics

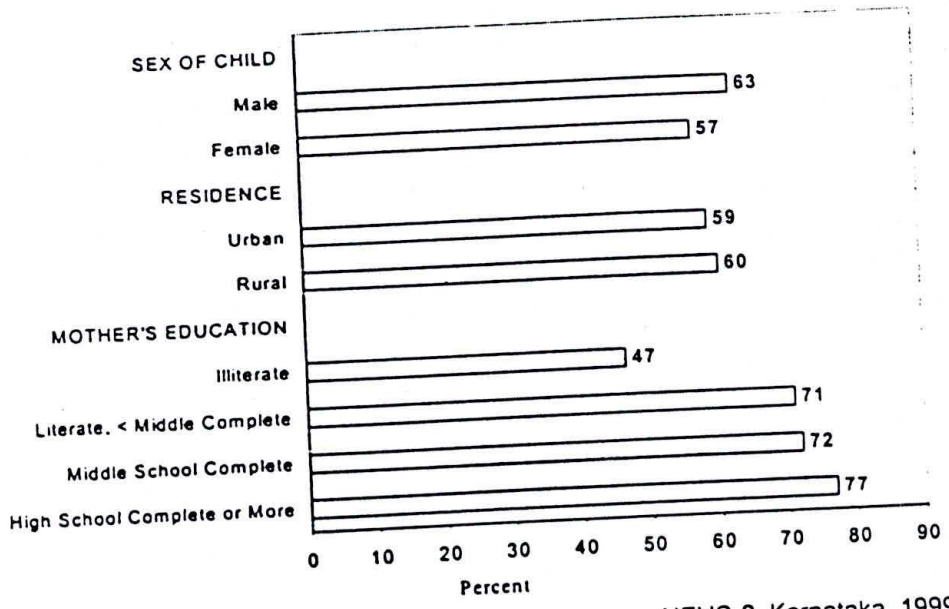
Percentage of children age 12-23 months with immunization cards seen by the interviewer, and the percentage who have received each vaccine (according to the immunization card or mother's report), by background characteristics, Karnataka, 1999

Background characteristic	Percentage with a card	Percentage of children age 12-23 months who received											Number of children
		BCG	Polio0	DPT1	DPT2	DPT3	Polio1	Polio2	Polio3	Measles	All[1]	None	
Sex of child													
Male	39.8	84.8	28.4	85.3	82.9	76.1	91.3	88.5	79.3	69.3	62.8	8.3	217
Female	42.7	84.8	24.3	88.7	86.8	74.4	92.5	89.6	77.2	65.2	57.1	7.0	209
Residence													
Urban	52.8	87.4	38.7	91.4	89.8	78.1	93.7	91.4	81.2	69.4	59.0	5.5	128
Rural	36.2	83.7	21.2	85.1	82.7	74.0	91.1	88.0	77.0	66.4	60.4	8.6	298
Mother's education													
Illiterate	27.6	74.9	14.2	78.1	75.8	64.0	86.8	82.7	67.1	54.9	46.6	12.3	218
Lit., < middle school complete	44.7	97.4	35.5	97.4	96.1	84.2	98.7	97.4	90.7	76.3	71.2	1.3	76
Middle school complete	(56.4)	(91.7)	(30.3)	(94.4)	(91.6)	(86.0)	(94.4)	(91.6)	(86.0)	(77.7)	(72.2)	(5.6)	36
High school complete and above	63.5	94.8	45.6	96.0	93.7	89.6	97.0	95.9	90.8	84.4	77.0	3.0	96
Total	41.2	84.8	26.4	87.0	84.8	75.2	91.9	89.0	78.3	67.3	60.0	7.7	426
Adjusted total from NFHS-1, 1992-1993	34.4	81.7	25.5	80.6	76.6	70.7	82.1	77.7	71.4	54.9	52.2	15.2	546

Note: Except for the last line of the table, the table is based on NFHS-2. The last line of the table shows comparable results from NFHS-1.
( ) Based on 25-49 unweighted cases
[1]Children who are fully vaccinated, i.e., those who received BCG, measles, and three doses each of DPT and polio vaccines (excluding Polio0).

Figure 4

Percentage of Children age 12-23 Months Who Have Received All Vaccinations



NFHS-2, Karnataka, 1999

Analysis of the vaccine-specific data shows that immunization coverage of children is 85 percent for BCG, 75 percent for three doses of the DPT vaccine, 78 percent for three doses of the polio vaccine (excluding the polio0 vaccine given at the time of birth), and 67 percent for measles. The coverage is about the same for DPT and polio because these two vaccines are usually administered together. The proportion of children who received DPT vaccinations decreases from 87 percent for DPT1 to 75 percent for DPT3, and the proportion who received polio vaccinations decreases from 92 percent for Polio1 to 78 percent for Polio3. These findings indicate a fair amount of dropping out before completing these two series of vaccinations.

The differentials between population groups in the proportion of children for whom the mother showed an immunization card are in the expected directions. An immunization card was shown for 53 percent of children in urban areas compared with only 36 percent of children in rural areas. The proportion of mothers showing immunization cards for their children rises sharply with mother's education but does not differ substantially by sex of child.

Vaccination coverage, however, varies little by urban-rural residence but does vary sharply by mother's education. Only 47 percent of children of illiterate mothers are fully vaccinated compared with 77 percent of children of mothers with who have completed at least high school. Boys are slightly more likely than girls to be fully vaccinated.

Table 14 also shows how vaccination rates and the proportion of children for whom the mother showed an immunization card changed between NFHS-1 and NFHS-2. The proportion of mothers who showed an immunization card increased from 34 percent to 41 percent over the six years between the two surveys. During this period the percentage fully immunized increased from 52 percent to 60 percent. The coverage of three doses of Polio increased slightly from 71 percent to 78 percent, however, the coverage of Polio0 increased fourfold, from 6 percent in 1992–93 to 26 percent in 1999. The percentage who did not receive any of the vaccinations declined from 15 percent in NFHS-1 to 8 percent in NFHS-2.

I. CHILDHOOD DIARRHOEA

Diarrhoea is a major killer of children under five years of age in India. In order to control diarrhoea, more than a decade ago the government launched an Oral Rehydration Therapy (ORT) Programme as one of its priority activities for child survival. Under this programme, an effort has been made to increase the awareness of women and the community at large about the dangers of dehydration from diarrhoea and how to treat the dehydration. The government makes Oral Rehydration Salt (ORS) packets widely available to deal with cases of acute dehydration.

In order to assess the current situation regarding the prevalence of diarrhoea and the use of oral rehydration therapy, all respondents were asked a series of questions about diarrhoea among children under three years of age and the treatment received. Table 15 shows that 14 percent of children under age three suffered from diarrhoea during the two weeks before the survey. It should be noted, however, that there are major seasonal variations in the prevalence of diarrhoea, so that current prevalence cannot be assumed to reflect the situation throughout the year.

The findings on prevalence of diarrhoea by age of child show that the percentage who suffered from diarrhoea in the past two weeks is highest among children age 6–11 months (18 percent). The prevalence of diarrhoea does not vary much by sex of the child or urban-rural residence. Children of mothers who have only completed middle school are more likely than children of mothers in any other educational category to have suffered from diarrhoea.

Table 15 Prevalence of diarrhoea and use of oral rehydration therapy (ORT)

Among children under three years of age, the percentage reported by the mother to have had diarrhoea in the past two weeks, and the percentage of those with diarrhoea in the past two weeks who were given ORS packets or other ORT, by background characteristics, Karnataka,1999

Background characteristic	Percentage of children who had diarrhoea in past 2 weeks	Number of children	Percentage of children with diarrhoea who were given: ORS packets	Other ORT	Any ORT	Number of children with diarrhoea
Age of child						
< 6 months	12.4	197	*	*	*	24
6-11 months	18.1	219	(29.8)	(40.5)	(52.8)	40
12-23 months	15.4	426	45.6	52.7	66.5	66
24-35 months	10.4	376	(37.9)	(53.9)	(69.0)	39
Sex of child						
Male	13.5	627	34.0	43.6	53.0	85
Female	14.2	590	34.2	47.5	62.9	84
Residence						
Urban	12.5	382	(38.1)	(46.6)	(61.5)	48
Rural	14.5	836	32.5	45.2	56.5	121
Mother's education						
Illiterate	13.8	628	29.5	34.6	51.6	87
Lit., < middle school complete	14.0	202	(28.7)	(50.3)	(50.3)	28
Middle school complete	16.7	107	*	*	*	18
High school complete and above	12.9	280	(43.9)	(63.3)	(71.6)	36
Total	13.9	1,218	34.1	45.6	57.9	169

Note: Table includes only surviving children from among the two most recent births in the three years preceding the survey.
( ) Based on 25-49 unweighted cases
*Percentage not shown, based on fewer than 25 unweighted cases

Among children who suffered from diarrhoea during the two weeks preceding the survey, 58 percent received any ORT in at least one of the following forms: a solution made from ORS packets, gruel, increased fluid intake or a homemade solution of sugar salt and water. Thirty-four percent of children with diarrhoea received a solution made from ORS packets. Because the number of children who had diarrhoea during the two weeks before the survey is quite small, it is difficult to interpret differences in the use of ORT for children in different subgroups. It appears, however, that girls are more likely than boys to be treated with any ORT when sick with diarrhoea. Further, urban children are more likely to receive ORT than rural children. Similarly, the likelihood of receiving any ORT is also much higher for children of mothers who have completed at least high school than for other children.

J. INFANT AND CHILD MORTALITY

The level of infant and child mortality is a basic indicator of the quality of life in a society. Although the questionnaire and interviewing procedures used in NFHS-2 were designed to collect complete and accurate mortality data, the reporting of date of birth and age at death of deceased children can be taxing for mothers, who may not remember the dates accurately. Indeed, some mothers may be reluctant to report childhood deaths at all. Accordingly, the data on childhood mortality should be viewed with caution until a more thorough analysis is conducted.

Table 16 and Figure 5 present several mortality rates for three five-year time periods: 0–4, 5–9, and 10–14 years before the survey. The following rates are presented:

- Neonatal mortality—the probability of dying within the first month of life;
- Post-neonatal mortality—the difference between infant mortality and neonatal mortality;
- Infant mortality—the probability of dying between birth and exact age one year;
- Child mortality—the probability of dying between the first and fifth birthdays;
- Under-five mortality—the probability of dying between birth and the fifth birthday.

Table 16 Infant and child mortality

Infant and child mortality rates for three five-year periods preceding the survey, Karnataka, 1999

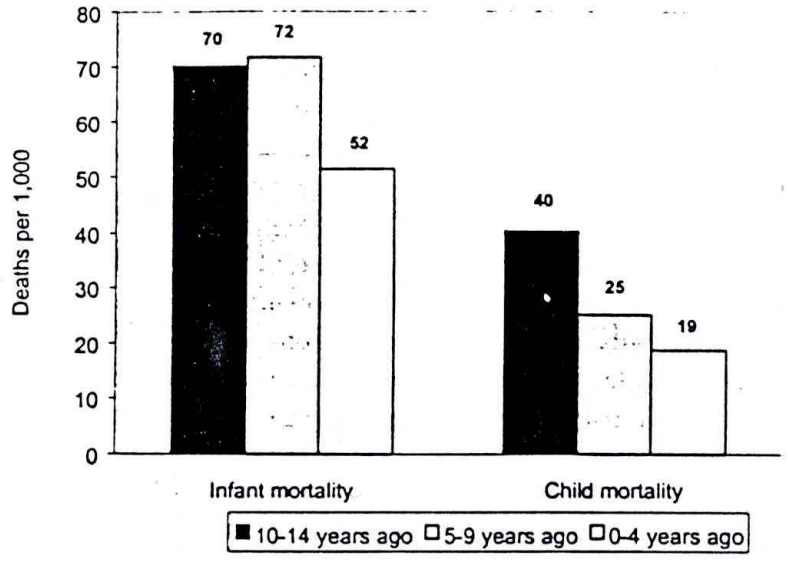
Years preceding survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	37.1	14.4	51.5	18.9	69.4
5-9	50.8	21.0	71.7	25.3	95.2
10-14	42.5	27.7	70.1	40.4	107.7

Note: The first 5-year period before the survey does not include the month of interview. Post-neonatal mortality is computed as the difference between infant and neonatal mortality. Rates are specified on a per-thousand basis. See text for definition of rates.

The infant mortality rate for Karnataka for the five-year period immediately preceding the survey is estimated to have been 52 per 1000 live births. This means that 5 out of every 100 children born in Karnataka did not survive until their first birthday. Child mortality for this period was 19 per 1000, and the under-five mortality rate was 69 per 1000. Thus, approximately one in 14 children died before completing 5 years of age. There has been a decline over the three five year periods in most of the mortality rates. Declines in neonatal mortality and infant mortality have, however, not been steady. Both rates increased a little between the farthest two periods and then declined sharply between the two most recent periods.

Figure 5

Infant and Child Mortality by Time Period



Note: Rates are for 5-year periods preceding the survey

NFHS-2, Karnataka, 1999

The NFHS-2 infant mortality estimates for Karnataka are slightly lower than recent estimates for the Sample Registration System (SRS) of the Office of the Registrar General. The average of the SRS estimates for the years 1995–98 is 56, which is slightly higher than the NFHS-2 estimate of 52 per 1,000 for the five-year period before the survey (approximately 1994-98).

K. ANAEMIA AMONG WOMEN AND CHILDREN

Anaemia is a condition that results when the level of haemoglobin in the blood is too low. Haemoglobin in the red blood cells transports oxygen from the lungs to other tissues and organs in the body, so that these tissues and organs can perform their functions. A deficiency of haemoglobin means a deficiency of the body's ability to deliver oxygen to those tissues and organs. Anaemia usually results from a nutritional deficiency of iron, folate, vitamin B_{12} and some other nutrients. This type of anaemia is commonly referred to as iron-deficiency anaemia.

Anaemia has detrimental effects on the health of women and children and may become an underlying cause of maternal death, antenatal loss, and perinatal loss. Anaemia among children can be associated with impaired cognitive performance, motor development, coordination, language development and scholastic achievement, as well as increased morbidity from infectious diseases. Early detection of anaemia can help to prevent complications of pregnancy and delivery as well as problems with child development. Measurement of the prevalence of anaemia can provide important information for development of health interventions, such as iron fortification, to prevent anaemia among women and children.

Because anaemia is such a serious health problem in India, NFHS-2 undertook direct measurement of haemoglobin levels of all ever-married women and their children under three years of age. This measurement was done in the field using the HemoCue system. In this system, a single drop of blood from a finger prick (or heel prick in the case of infants below six months of age) is drawn into a cuvette, which is then inserted into a portable, battery-operated instrument. In less than one minute, the haemoglobin concentration is indicated on a digital read-out. Results are shown in Tables 17 and 18. These tables distinguish four levels of anaemia:

- no anaemia—haemoglobin concentration of 11.0 grams/decilitre (g/dl) or higher for children or pregnant women and 12.0 g/dl or higher for nonpregnant women
- mild anaemia—10.0–10.9 g/dl for children or pregnant women and 10.0-11.9 g/dl for nonpregnant women
- moderate anaemia—7.0–9.9 g/dl
- severe anaemia—less than 7.0 g/dl

Appropriate adjustments in these cutoff points have been made for persons living at altitudes above 1,000 metres and women who smoke, since both of these groups require more haemoglobin in their blood.

Results for women are shown in Table 17 and Figure 6. Overall, 58 percent of women have no anaemia, 27 percent are mildly anaemic, 14 percent are moderately anaemic, and 2 percent are severely anaemic. The prevalence of anaemia is relatively high among younger women age 15–24 (47 percent), rural women (46 percent), illiterate women (48 percent), women of 'other' religions (51 percent), scheduled caste women (47 percent), scheduled tribe women (46 percent), and women working in a family farm or family business or employed by someone else (47 percent). The prevalence of anaemia is relatively low among women who have completed at least high school (32 percent), urban women (36 percent), and Christian women (37 percent). Pregnant women are only slightly more likely than nonpregnant women to be anaemic at all, but are twice as likely as nonpregnant women to be moderately anaemic.

Table 17 Anaemia among women

Percent distribution of women by degree of iron-deficiency anaemia, according to background characteristics, Karnataka, 1999

Background characteristic	Percentage of women with: No anaemia	Mild anaemia	Moderate anaemia	Severe anaemia	Total Percent	Percentage with any anaemia	Number of women
Age							
15-24	52.6	29.3	16.4	1.7	100.0	47.4	1,141
25-34	59.8	25.4	12.5	2.4	100.0	40.2	1,503
35-49	59.3	25.8	12.2	2.7	100.0	40.7	1,476
Number of living children							
0	55.4	26.0	17.2	1.4	100.0	44.6	442
1	58.5	23.1	15.9	2.5	100.0	41.5	669
2	56.6	30.1	10.9	2.5	100.0	43.4	1,170
3	60.1	24.3	13.7	1.9	100.0	39.9	908
4+	56.8	27.3	12.9	3.0	100.0	43.2	930
Residence							
Urban	64.2	24.6	9.8	1.3	100.0	35.8	1,439
Rural	54.0	27.7	15.4	2.9	100.0	46.0	2,681
Education							
Illiterate	52.5	28.7	15.5	3.3	100.0	47.5	2,255
Lit., < middle school complete	59.4	26.8	11.5	2.3	100.0	40.6	778
Middle school complete	62.4	21.7	15.5	0.4	100.0	37.6	281
High school complete and above	68.3	22.1	9.1	0.5	100.0	31.7	806
Religion							
Hindu	57.4	26.4	13.8	2.4	100.0	42.6	3,539
Muslim	58.6	27.0	12.4	2.0	100.0	41.4	450
Christian	63.3	30.6	6.2	–	100.0	36.7	99
Other	(48.7)	(35.4)	(12.6)	(3.3)	100.0	(51.3)	31
Caste/tribe							
Scheduled caste	53.4	26.0	18.3	2.4	100.0	46.6	674
Scheduled tribe	54.1	27.2	16.5	2.2	100.0	45.9	231
Other backward class	58.1	26.8	12.7	2.4	100.0	41.9	1,717
Other[1]	59.7	26.3	11.7	2.2	100.0	40.3	1,453
Missing	(50.0)	(35.0)	(12.9)	(2.1)	100.0	(50.0)	46
Employment status							
Working in family farm/business	52.7	28.0	15.2	4.1	100.0	47.3	679
Employed by someone else	52.6	29.7	15.4	2.3	100.0	47.4	1,203
Self-employed	57.0	25.9	14.7	2.4	100.0	43.0	243
Not worked in last 12 months	62.3	24.4	11.6	1.8	100.0	37.7	1,995
Pregnancy/breastfeeding status							
Pregnant	51.5	20.7	24.9	2.8	100.0	48.5	277
Breastfeeding (nonpregnant)	54.6	30.3	12.5	2.5	100.0	45.4	714
Nonpregnant/non-breastfeeding	58.8	26.3	12.7	2.3	100.0	41.2	3,129
Total	57.6	26.6	13.5	2.3	100.0	42.4	4,120

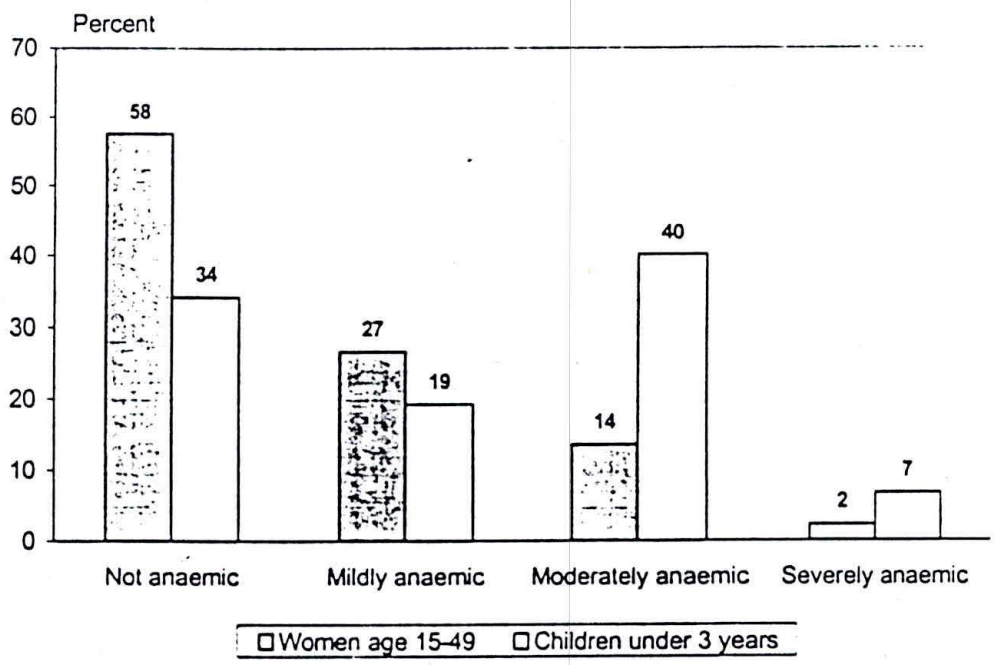
Note: Haemoglobin levels are adjusted for altitude and smoking when calculating the severity of anaemia. Total includes 1 woman with missing information on employment status, who is not shown separetely.

( ) Based on 25-49 unweighted cases

[1]Women who do not belong to a scheduled caste, a scheduled tribe, or an other backward class.

Figure 6

Anaemia Among Women and Children



NFHS-2, Karnataka, 1999

Results for children are shown in Table 18 and Figure 6. Overall, 34 percent of children have no anaemia, 19 percent are mildly anaemic, 40 percent are moderately anaemic, and 7 percent are severely anaemic. A much higher proportion of children (66 percent) than women (42 percent) were found to be anaemic. Children of 12–23 months have the highest prevalence of anaemia (78 percent), perhaps due to the initiation of weaning at this age, coupled with poor nutritional supplementation. Rural children are ore likely than urban children to be anaemic. Also, male children are slightly more than female children to be anaemic, as are Muslim children compared with Hindu Anaemia is, however, even higher among children of birth order 6 and above children of illiterate mothers (73 percent), scheduled caste children (73 dren whose mothers are severely anaemic (81 percent). Anaemia rates dren of mothers who have completed at least high school. Notably, of the children (54 percent) even in this group, are anaemic. lationship between anaemia status of mothers and their nsequences of poor maternal health on the children, as id their children.

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Table 18 Anaemia among children

Percent distribution of children under three years of age by degree of iron-deficiency anaemia, according to background characteristics, Karnataka, 1999

Background characteristic	Percentage of children with: No anaemia	Mild anaemia	Moderate anaemia	Severe anaemia	Total percent	Percentage with any anaemia	Number of children
Age of child							
< 12 months	43.8	20.8	33.7	1.7	100.0	56.2	345
12–23 months	21.9	20.2	48.7	9.2	100.0	78.1	356
24-35 months	37.8	16.4	36.8	9.0	100.0	62.2	308
Residence							
Urban	37.6	19.8	38.0	4.6	100.0	62.4	326
Rural	32.6	18.9	41.1	7.5	100.0	67.4	685
Sex of child							
Male	31.8	17.0	43.0	8.2	100.0	68.2	516
Female	36.7	21.5	37.0	4.8	100.0	63.3	496
Birth order							
1	40.8	16.0	38.5	4.7	100.0	59.2	357
2-3	31.2	21.5	39.7	7.6	100.0	68.8	469
4-5	31.0	21.4	39.8	7.8	100.0	69.0	141
6+	(22.3)	(13.4)	(57.8)	(6.5)	100.0	(77.7)	45
Mother's education							
Illiterate	26.6	19.2	44.3	9.8	100.0	73.4	503
Literate, < middle school complete	38.5	20.5	37.1	3.9	100.0	61.5	177
Middle school complete	36.8	16.8	42.0	4.4	100.0	63.2	90
High school complete and above	45.7	19.1	32.7	2.5	100.0	54.3	242
Religion							
Hindu	34.5	19.6	40.3	5.6	100.0	65.5	820
Muslim	30.9	18.6	38.1	12.4	100.0	69.1	167
Caste/tribe							
Scheduled caste	26.8	20.8	44.4	8.0	100.0	73.2	198
Scheduled tribe	34.7	19.8	37.6	8.0	100.0	65.3	61
Other backward class	37.5	18.1	41.6	2.8	100.0	62.5	357
Other[1]	35.5	18.5	37.0	9.0	100.0	64.5	384
Mother's anaemia status							
Not anaemic	39.1	20.9	35.3	4.8	100.0	60.9	538
Mildly anaemic	31.0	17.3	44.0	7.8	100.0	69.0	310
Moderately anaemic	25.1	16.1	49.7	9.2	100.0	74.9	138
Severely anaemic	(19.1)	(23.3)	(42.5)	(15.1)	100.0	(80.9)	26
Total	34.2	19.2	40.1	6.6	100.0	65.8	1,012

Note: Haemoglobin levels are adjusted for altitude when calculating the severity of anaemia among children. Total includes 20 children who are "christian", 4 children belonging to "other" religions and 11 children with missing information on the caste/tribe, who are not shown separately.

( ) Based on 25-49 unweighted cases

[1]Children who do not belong to a scheduled caste, a scheduled tribe, or an other backward class

Please confirm your consent to the above Agreement by signing in a legally binding form and returning the enclosed copies.

We enclose a copy of the present letter with the request to forward it to ***Government of India*** and in due course also to the consultants.

Yours faithfully,
KREDITANSTALT FÜR WIEDERAUFBAU

Enclosures

1. Standard form for Statement of Contracts
2. Supplementary Conditions (for payments under the disposition fund procedure)
3. Organizational structure of the project
4. Agency Contract
5. Guidelines of Kreditanstalt für Wiederaufbau for procurement in the field of Financial Cooperation
6. Memo for Progress Reports
7. Terms of Reference for the Consultant
8. Guidelines for the Disbursement of Funds of Financial Cooperation and Comparable Programmes by KfW

Read and agreed:

Frankfurt am Main,
this 16th day of Jan, 1997
KREDITANSTALT FÜR WIEDERAUFBAU

this 16th day of Jan, 1997
GOVERNMENT OF KARNATAKA

GOV-2.

Draft Aide Memoire

KfW review mission

(on the 12th of June 1999 in Delhi; and from the 14th to the 15th of June 1999 in Bangalore)

on the Project "Upgrading Secondary Level Health Care Facilities in the Gulbarga Division, State of Karnataka, Phase I"

A KfW-mission consisting of Ms. Regina Schneider (Project Manager) and Mr. Gerhard Redecker (Senior Construction Advisor) visited India to review the ongoing Project "Upgrading Secondary Level Health Care Facilities in the Gulbarga Division, State of Karnataka, Phase I" (the Project). During their visit the KfW-mission had discussions with Messrs. Tawhid Nawaz and Dr. David Porter (World Bank and Southern General Hospital NHS Trust) in Delhi, the Honourable Minister for Health & Family Welfare, Dr. H.C. Mahadevappa, Messrs. A. Sengupta (Secretary to Government, Health & Family Welfare Department), Dr. S. Subramanya (Project Administrator & E/o Addl. Secretary to Government) and the other members of the Karnataka Health Systems Development Project-Team, Government of Karnataka, as well as with representatives of the Consultant Consortium. The KfW-mission would like to express their sincere gratitude to the representatives of the GoK and especially to Dr. Subramanya for the kind hospitality, the very open discussion and the excellent co-operation. The draft Aide Memoire summarises the main findings and conclusions of the KfW-mission, which are subject to the approval of the management of KfW and the Government of Karnataka.

Consulting Services

During the course of discussions the mission stated that, for a number of reasons, a considerable delay has already occurred in the planning process, affecting the overall time schedule of the Project. With the aim of supporting the capacity of the local architects, during the past months, the Consultant was engaged in activities related to the elaboration of functional layouts and preliminary designs. These activities are not covered by the Terms of Reference of the Consulting Contract. As a consequence, the assigned person-months for consulting services have been utilised in excess of the time schedule and work programme. Therefore, a re-programming of the consulting services and adjustment of the ToR are required. The following general conclusions were reached:

- The planning work by the local architects as well as clearance by the Consultant has to be speeded up considerably.
- Involvement of KfW for approval of plans and tenders shall be limited to the aspects mentioned below.
- In line with the procedures of the World Bank-funded Karnataka Health Systems Development Project (KHSDP), quality audit / control of the construction shall be done by an independent construction audit firm which is specialised for that task.
- The Consultant shall be required to react in a more flexible manner to the needs of the project in order not to delay implementation.
- The quality of overall project monitoring and reporting by the Consultant has to be improved substantially.

of above considerations, the following principles for an amendment to ng Contract have been agreed upon:

- Hospital Planner, Mr. Stojanovic, has been replaced by Mr. Fitz.
- Consultant for on-site construction supervision shall be required.
- The Consultant shall attend to all pending planning issues and monitor the implementation of civil works.
- For on-site quality audit, the Project-Executing Agency (PEA), should contract an independent construction audit firm by way of the competitive bidding process according to the procedures established in the KHSDP. The cost shall be included in the Consulting Contract.
- The input of the local partner of the Consulting Consortium, Messrs. STEM, shall be substantially scaled down.

detailed proposal on the time schedule, ToR and work schedule shall be worked ut by the Consultant shortly. The general guidelines for the Consultant's nvolvement in the planning and implementation process are established below:

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fW has recently been presented with 3 batches of planning documents pre-checked y the Consultant, 2 of them (10 hospitals) have already been reviewed. Comments ere given and approval in principle communicated to the PEA. It is understood that e local architects / engineers will incorporate these comments, as far as relevant nd possible, into the final design. There is no need to submit a revised version of ie Preliminary Designs to KfW for additional concurrence.

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he final designs and tender documents shall be elaborated by the local architects. ne technical specifications to be followed are those established for the KHSDP. ne Consultant shall review these designs and documents and check on the corporation of his / KfW's comments made on the Preliminary Designs. This vision shall take place upon presentation of the respective documentation to the onsu nt, either during a stay of the Consultant in India, or in his office in Germany. ne PEA shall forward the sets of documents (either individually or in batches) rectly to the Consultant. After review, the Consultant shall forward to PEA and KfW statement of conformity together with a copy of the summarised final cost estimate nly broken down by bills, not items or sub-items). Any comments which may still be quired on the final designs, shall be cleared on the spot together with the Building crutiny Committee, or be counterchecked by the Consultant during site visits, ex- ost. The submission of final design documents for each hospital to KfW is not quired.

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Tendering and Awarding of Contracts / Civil Works

Once the Certificate of Conformity has been issued by the Consultant on the Final Design and Tender Documentation, the PEA will make the tender advertisement. The tenders shall be analysed and an evaluation report shall be prepared by the PEA, together or in co-ordination with the Consultant. A copy of the evaluation report and the proposal for contract award, together with a certification of the Consultant, shall be forwarded to KfW for no-objection. The direct involvement of the Consultant in the actual tender evaluation process will depend on his availability in India as well as on the request of the PEA. After the no-objection by KfW and signing of the contract by the PEA, a copy of the signed contract shall be forwarded to KfW for information.

Variation Orders / Civil Works

It is understood that rehabilitation works require some adjustments to the BoQ during implementation. The PEA is entitled to directly negotiate with the contractors variation orders of up to 15% of the contract amount (any single variation not to exceed 5% of the contract amount) without additional clearance by the Consultant or KfW. The respective amount of 15% shall be considered as contingency in the overall cost estimate of each hospital.

Urgent Repair Work / Hospitals

It was clarified that Urgent Repair Works can be either carried out by local contractors after tendering, or by labour contracts directly handled by the PEA or the local hospital administration. The term "Force-Account" used by the Consultant should be dropped.

The Consultant shall not intervene in the clearance of any detailed expenditure on this subject prior to its payment out of the Disposition Fund. The PEA should now proceed immediately to initiate the respective works. All payments are only to be cleared by the Project Administrator under the terms established in the Separate Agreement. After finalising the Urgent Repair works, the PEA will prepare a list of expenditure for the request for replenishment to KfW. The Consultant shall only certify that all expenditure has been made for project purposes. For that, he shall carry out random checks on the utilisation of the funds and appropriateness of the works to the extent he sees necessary for his certification.

Equipment Procurement

In line with the procedures applied in the KHSDP, the PEA shall tender the equipment procurement per item and elaborate the respective tender evaluation report for concurrence by the Consultant and no-objection by KfW. The first evaluation report shall be prepared by the Consultant which shall serve as a model for subsequent evaluation.

Bangalore, the 15th of June 1999

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Bangalore, the 15th of June 1999

GOV-2.

KfW

TELEFAX - TELEFAX - TELEFAX - TELEFAX

Telefax number: 0091 - 80 – 220 4154 / 225 2499

Government of Karnataka
Health and Family Welfare Department
Attn.: Mr. A. Sengupta, Secretary to Government
III Stage (First Floor), Multistoreyed Building,
Dr. B.R. Ambedkar Veedhi
Bangalore-560 001, India

officer in charge:	Ms. Schneider
our ref.:	Schn
extension:	2856
email:	regina.schneider@kfw.de
date:	September 10, 1999
number of pages (incl. this page)	2

L III a - German Financial Cooperation with India
Upgrading Secondary Level Health Care Facilities in the Gulbarga Division, State of Karnataka, Phase I

Subject: Our meeting with the project team on the 4th of September 1999 in Bangalore

Dear Mr. Sengupta,

may we draw your attention to the a.m. project and to our discussion during our last visit to ngalore from the 13th till the 15th of June this year. As you may recall during that time we all were very concerned about the staggered pace of the project, the performance of the consultant as well as the possibility of substantial cost overruns. During our recent visit we learned that the project is now on the right track. In this respect we would like to express our sincere gratitude to all members of the project team and especially to the project administrator Dr. Subramanya for their dedication and hard work to overcome the previous difficulties and to shorten the implementation period as much as possible.

1. Based on the agreement reached during our last visit the consultant contract has already been amended accordingly. The services which are provided by the consultant under the amendment are valued by all parties concerned and seem to be – apart from some minor misunderstandings – useful and contributive to the project goal.

KREDITANSTALT FÜR WIEDERAUFBAU
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Postfach 11 11 60[illegible] Frankfurt
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2. In order to check the substantial increase of the construction costs the project team together with the consultant undertook the tedious task of revising the cost estimates for all hospital thereby taking out all non-essential items. Contrary to your and our concern that the project funds available would eventually not allow to cover all construction work, the new cost estimates are rather promising. According to these estimates, all essential construction cost can be met out of the project funds.

3. In view of the past delays within this project we would like to thank the GoK from exempting all tender and award activities from the election-based standstill. Thus, tender for the first construction can be floated in September, construction might already commence in December.

Thanking you very much for your good cooperation and understanding.

Yours sincerely,
KREDITANSTALT FÜR WIEDERAUFBAU

Pischke Schneider

cc.: 1. Mr. Anshu Prakash, Deputy Secretary, Ministry of Finance, Department of Economic Affairs, New Delhi-110 001, **Telefax number: 0091–11–3014048 / 3017511**
2. KfW-Office, **via e-mail** ✓

GOV-2.
WB file

CREDIT NUMBER 2833 IN

Project Agreement

(Second State Health Systems Development Project)

between

INTERNATIONAL DEVELOPMENT ASSOCIATION

and

STATE OF KARNATAKA
STATE OF PUNJAB
STATE OF WEST BENGAL
and
PUNJAB HEALTH SYSTEMS CORPORATION

Dated APRIL 18, 1996

CREDIT NUMBER 2833 IN

PROJECT AGREEMENT

AGREEMENT, dated April 15, 1996, between INTERNATIONAL DEVELOPMENT ASSOCIATION (the Association) and THE STATE OF KARNATAKA, THE STATE OF PUNJAB, THE STATE OF WEST BENGAL, acting by their respective Governors (the Project States) and PUNJAB HEALTH SYSTEMS CORPORATION (PHSC).

WHEREAS (A) the Association has received a letter dated February 13, 1996. February 15, 1996 and February 8, 1996 from the State of Karnataka, the State of Punjab and the State of West Bengal respectively (collectively the Project States), each such letter describing a program of objectives, policies and actions to improve the primary and first referral levels of health care (hereinafter referred to as the Karnataka Health Sector Development Program, the Punjab Health Sector Development Program and the West Bengal Health Sector Development Program, respectively) and declaring the respective Project State's commitment to carry out its Health Sector Development Program;

WHEREAS (B) by the Development Credit Agreement of even date herewith between India, acting by its President (the Borrower) and the Association, the Association has agreed to make available to the Borrower an amount in various currencies equivalent to two hundred thirty five million five hundred thousand Special Drawing Rights (SDR 235,500,000), on the terms and conditions set forth in the Development Credit Agreement, but only on condition that the Project States and PHSC agree to undertake such obligations toward the Association as are set forth in this Agreement;

WHEREAS the Project States and PHSC, in consideration of the Association's entering into the Development Credit Agreement with the Borrower, have agreed to undertake the obligations set forth in this Agreement;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

Definitions

Section 1.01. Unless the context otherwise requires, the several terms defined in the Development Credit Agreement, the Preamble to this Agreement and in the General Conditions (as so defined) have the respective meanings therein set forth.

ARTICLE II

Execution of the Project

Section 2.01. (a) The Project States and PHSC declare their commitment to the objectives of the Project as set forth in Schedule 2 to the Development Credit Agreement, and, to this end, shall carry out the Project with due diligence and efficiency and in conformity with appropriate administrative, financial and health practices, and shall provide, or cause to be provided, promptly as needed, the funds, facilities, services and other resources required for the Project.

(b) Without limitation upon the provisions of paragraph (a) of this Section and except as the Association and the Project States and PHSC shall otherwise agree, the Project States and PHSC shall carry out the Project in accordance with the Implementation Program set forth in Schedule 2 to this Agreement.

(c) Without limitation upon the provision of paragraph (a) of this Section, Punjab shall promptly make available the proceeds of the Credit received from the Borrower to PHSC as part of its grant contribution in accordance with the provisions of the Ordinance.

Section 2.02. Except as the Association shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Credit shall be governed by the provisions of Schedule 1 to this Agreement.

Section 2.03. (a) The Project States and PHSC shall carry out the obligations set forth in Sections 9.03, 9.04, 9.05, 9.06, 9.07 and 9.08 of the General Conditions (relating to insurance, use of goods and services, plans and schedules, records and reports, maintenance and land acquisition, respectively) in respect of the Project Agreement and the Project.

(b) For the purposes of Section 9.07 of the General Conditions, and without limitation thereto, the Project States and PHSC shall:

(i) prepare, on the basis of guidelines acceptable to the Association and furnish to the Association not later than six (6) months after the Closing Date or such later date as may be agreed for this purpose, between the Association and the Project States and PHSC, a plan designed to ensure the sustainability of the Project;

(ii) afford the Association a reasonable opportunity to exchange views with the Project States and PHSC on said plan; and

(iii) thereafter, carry out said plan with due diligence and efficiency and in accordance with appropriate practices, taking into account the Association's comments thereon.

Section 2.04. (a) The Project States and PHSC shall, at the request of the Association, exchange views with the Association with regard to the progress of the Project, the performance of its obligations under this and other matters relating to the purposes of the Credit.

(b) The Project States and PHSC shall promptly inform the Association of any condition which interferes or threatens to interfere with the progress of the Project, the accomplishment of the purposes of the Credit, or the performance by each of them of its respective obligations under this Agreement.

ARTICLE III

Financial Covenants

Section 3.01. (a) The Project States and PHSC shall each maintain records and accounts adequate to reflect in accordance with sound accounting practices their operations, resources and expenditures in respect of activities related to their respective parts of the Project, of the departments or agencies responsible for carrying out the Project or any part thereof.

(b) The Project States and PHSC shall:

(i) have records and accounts referred to in paragraph (a) of this Section for each fiscal year audited, in accordance with appropriate auditing principles consistently applied by independent auditors acceptable to the Association;

(ii) furnish to the Association as soon as available, but in any case not later than nine months after the end of each such year: (A) certified copies of its financial statements for such year as so audited; and (B) the report of such audit by said auditors, of such scope and in such detail as the Association shall have reasonably requested; and

(iii) furnish to the Association such other information concerning said records, accounts and financial statements as well as the

audit thereof, as the Association shall from time to time reasonably request.

ARTICLE IV

Effective Date; Termination; Cancellation and Suspension

Section 4.01. This Agreement shall come into force and effect on the date upon which the Development Credit Agreement becomes effective.

Section 4.02. (a) This Agreement and all obligations of the Association and of the Project States and PHSC thereunder shall terminate on the earlier of the following two dates:

(i) the date on which the Development Credit Agreement shall terminate in accordance with its terms; or

(ii) the date twenty years after the date of this Agreement.

(b) If the Development Credit Agreement terminates in accordance with its terms before the date specified in paragraph (a) (ii) of this Section, the Association shall promptly notify the Project States and PHSC of this event.

Section 4.03. All the provisions of this Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the General Conditions.

ARTICLE V

Miscellaneous Provisions

Section 5.01. Any notice or request required or permitted to be given or made under this Agreement and any agreement between the parties contemplated by this Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable, telex or radiogram to the party to which it is required or permitted to be given or made at such party's address hereinafter specified or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:	Telex:
INDEVAS Washington, D.C.	197688 (TRT), 248423 (RCA), 64145 (WUI) or 82987 (FTCC)

For the State of Karnataka:

Chief Secretary to the
Government of Karnataka
Bangalore, India

For the State of Punjab:

Secretary to the
Government of Punjab
Department of Health
Chandigarh, India

For the State of West Bengal:

Chief Secretary to the
Government of West Bengal
Calcutta, India

For Punjab Health Systems Corporation:

Managing Director
Punjab Health Systems Corporation
Chandigarh, India

Section 5.02. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Agreement on behalf of the Project States or PHSC, may be taken or executed by the Chief Secretary in the case of Karnataka and West Bengal, or the Secretary, Department of Health in the case of

Punjab or the Managing Director in the case of PHSC or such other person or persons as the respective Chief Secretary, the Secretary, Department of Health, or the Managing Director shall designate in writing, and the Project States and PHSC shall furnish to the Association sufficient evidence of the authority and the authenticated specimen signature of each such person.

Section 5.03. This Agreement may be executed in several counterparts, each of which shall be an original, and all collectively but one instrument.

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

INTERNATIONAL DEVELOPMENT ASSOCIATION

By /s/ HEINZ VERGIN
ACTING Regional Vice President
South Asia

STATE OF KARNATAKA
STATE OF PUNJAB
STATE OF WEST BENGAL
PUNJAB HEALTH SYSTEMS CORPORATION

By /s/ N. VALLURI
Authorized Representative

SCHEDULE 1

Procurement and Consultants' Services

Section I: Procurement of Goods and Works

Part A: General

Goods and works shall be procured in accordance with the provisions of Section I of the "Guidelines for Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 (the Guidelines) and the following provisions of this Section, as applicable.

Part B: International Competitive Bidding

1. Except as otherwise provided in Part C of this Section, goods shall be procured under contracts awarded in accordance with the provisions of Section II of the Guidelines and Paragraph 5 of Appendix 1 thereto.

2. The following provisions shall apply to goods to be procured under contracts awarded in accordance with the provisions of paragraph 1 of this Part B.

(a) Grouping of contracts

To the extent practicable, contracts for goods shall be grouped in bid packages estimated to cost $200,000 equivalent or more each.

(b) Preference for domestically manufactured goods

The provisions of paragraphs 2.54 and 2.55 of the Guidelines and Appendix 2 thereto shall apply to goods manufactured in the territory of the Borrower.

Part C: Other Procurement Procedures

1. Except as provided in paragraphs 2 and 3 hereof, civil works may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

2. Civil works estimated to cost the equivalent of $45,000 or less per contract, up to an aggregate amount not to exceed the equivalent of $18,000,000, may be procured: (i) under lump sum, fixed price contracts awarded on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic

specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to successfully complete the contract; or (ii) through direct contracting in accordance with the provisions of paragraph 3.7 of the Guidelines, and in accordance with procedures acceptable to the Association; or (iii) with the Association's prior agreement, under force account procedures in accordance with the provisions of paragraph 3.8 of the Guidelines, provided, however, that civil works procured under such procedures shall not in the aggregate exceed $10,000,000.

3. Except as provided in paragraph 4 hereof, equipment estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of $12,700,000, may be procured under contracts awarded on the basis of national competitive bidding procedures, in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

4. Equipment estimated to cost the equivalent of $50,000 or less per contract, up to an aggregate amount not to exceed the equivalent of: (i) $4,200,000, may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines; and (ii) $12,700,000, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

5. Vehicles estimated to cost not more than the equivalent of $300,000 in the aggregate may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

6. Except as provided in paragraph 7 hereof, medical laboratory supplies estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of: (i) $2,700,000, may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines, and (ii) $400,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

7. Medical laboratory supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $2,300,000 may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

8. Except as provided in paragraphs 9 and 10 hereof, medicines, furniture, Management Information System/Information, Education and Communication

(MIS/IEC) materials and supplies shall be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

9. Medicines estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $1,500,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

10. Medicines, furniture, MIS/IEC materials and other supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $3,700,000, $2,800,000, $1,700,000 and $11,100,000 respectively, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

11. Except as provided in paragraph 12 hereof, maintenance of buildings and vehicles and equipment may be carried out under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

12. Maintenance of buildings, and vehicles and equipment which meet the requirements of paragraphs 3.7 and 3.8 of the Guidelines and costing in the aggregate less than the equivalent of $3,100,000 in the case of buildings and $7,000,000 in the case of vehicles and equipment, may be carried out either: (i) through direct contracting; or (ii) force account, in accordance with the provisions of said paragraphs 3.7 and 3.8 respectively, of the Guidelines, and in accordance with procedures satisfactory to the Association.

Part D: Review by the Association of Procurement Decisions

1. Procurement Planning

Prior to the issuance of any invitations to prequalify for bidding or to bid for contracts, the proposed procurement plan for the Project shall be furnished to the Association for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Guidelines. Procurement of all goods and works shall be undertaken in accordance with such procurement plan as shall have been approved by the Association, and with the provisions of said paragraph 1.

2. Prior Review

With respect to each contract for goods or civil works estimated to cost more than the equivalent of $200,000 or $300,000 respectively, the procedures set forth in paragraphs 2 and 3 of Appendix 1 to the Guidelines shall apply.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Guidelines shall apply.

Section II: Employment of Consultants

1. Consultants' services shall be procured under contracts awarded in accordance with the provisions of the "Guidelines for the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency" published by the Bank in August 1981 (the Consultant Guidelines). For complex, time-based assignments, such contracts shall be based on the standard form of contract for consultants' services issued by the Bank, with such modifications thereto as shall have been agreed by the Association. Where no relevant standard contract documents have been issued by the Bank, other standard forms acceptable to the Bank shall be used.

2. Notwithstanding the provisions of paragraph 1 of this Section, the provisions of the Consultant Guidelines requiring prior Association review or approval of budgets, short lists, selection procedures, letters of invitation, proposals, evaluation reports and contracts, shall not apply to: (a) contracts for the employment of consulting firms estimated to cost less than $100,000 equivalent each; or (b) contracts for the employment of individuals estimated to cost less than $50,000 equivalent each. However, said exceptions to prior Association review shall not apply to: (a) the terms of reference for such contracts; (b) single-source selection of consulting firms; (c) assignments of a critical nature, as reasonably determined by the Association; (d) amendments to contracts for the employment of consulting firms raising the contract value to $100,000 equivalent or above; or (e) amendments to contracts for the employment of individual consultants raising the contract value to $50,000 equivalent or above.

SCHEDULE 2

Implementation Program

1. Each Project State shall:

(a) ensure that within the allocations for the health sector in each Fiscal Year during the implementation of the Project the share of resources for Primary and Secondary Levels of Health Services shall be increased in each such Fiscal Year until FY 02; and

(b) allocate in each Fiscal Year during the implementation of the Project adequate resources for drugs, essential supplies, and maintenance of equipment and buildings at facilities providing First Referral Level Health Services in accordance with norms agreed to with the Association.

2. Each Project State shall maintain its Strategic Planning Cell with adequate staff, resources and terms of reference acceptable to the Association.

3. Each Project State and PHSC shall levy user-charges in district and sub-divisional hospitals in accordance with a program and time schedule acceptable to the Association, such program to focus, inter alia, on: (a) permitting the revenues collected from user-charges to be retained at the hospital level; (b) implementing user charges in a phased manner after improvements in the quality of basic services and infrastructure development have been completed; (c) developing and applying criteria for exempting the poor from user charges; and (d) strengthening appropriate management and collection arrangements for maintaining existing user charges, including the establishment and maintenance of District Health Committees in Karnataka and West Bengal for collecting such charges.

4. Punjab and PHSC shall, as the case may be, take all such measures as may be necessary or required: (i) to enable PHSC to carry out its part of the Project; and (ii) to ensure that PHSC undertakes health care activities at the secondary level in accordance with service delivery norms acceptable to the Association, and in carrying out other heath care activities shall ensure that its ability to perform its obligations under this Agreement as determined, inter alia, from a review of the progress achieved in implementing the annual work plans and in meeting the development and performance indicators referred to in paragraph 9 hereof is not adversely affected.

5. For purposes of enhancing the quality of health care services under the Project, each Project State and PHSC shall: (i) maintain the key headquarters personnel appointed for purposes of implementing the Project; (ii) appoint and thereafter maintain key additional personnel with adequate qualification and experience in accordance with a

schedule of appointment agreed with the Association; (iii) adopt, no later than six months after completion of the physical improvements in any hospital under the Project, and thereafter implement, staffing and technical norms acceptable to the Association; and (iv) provide on an annual basis adequate funds, satisfactory to the Association, for the maintenance of previously existing equipment in health care facilities supported under the Project.

6. For purposes of carrying out Part B.3 of the Project as set forth in Schedule 2 to the Development Credit Agreement, each Project State and PHSC shall, no later than December 31, 1996: (i) issue appropriate directives to hospitals to strengthen the management of the referral mechanism between the Primary, Secondary, and Tertiary Level Health Services; (ii) establish and thereafter maintain and implement appropriate referral protocols and clinical management protocols; and (iii) establish and thereafter maintain and implement an appropriate incentive system for patients who use the system.

7. Karnataka and West Bengal shall maintain the District Health Committees with such staff, resources, powers, functions and responsibilities so as to enable them to facilitate, inter alia, the functioning of the referral mechanism, the collection and distribution of user charges, maintenance of equipment, waste management, training of technical staff, quality assurance, surveillance of communicable diseases and the monitoring and supervision of their respective activities to be carried out under the Project.

8. Each Project State shall take all such measures as may be necessary or required in order to provide, and thereafter maintain, authority to DOHFW in the case of Karnataka and West Bengal and to PHSC in the case of Punjab for managing the activities to be carried out by them under the Project, including construction and maintenance activities.

9. Each Project State and PHSC shall:

(a) by April 30 of each year during the implementation of the Project beginning with April 30, 1997:

(i) provide to the Association an annual work plan, acceptable to the Association, setting forth the respective activities under the Project to be carried out during the prevailing Fiscal Year including the budgetary allocations to be made available for such purpose, as well as the performance benchmarks and development objectives to be achieved and drawn from the overall framework agreed to be achieved under the Project including, inter alia, hospital activity indicators, hospital

efficiency indicators, and quality, access and effectiveness indicators to be measured in accordance with methodology satisfactory to the Association; and

(ii) review with the Association the progress achieved in implementing the Project under the annual work plan for the previous Fiscal Year and the interim plan referred to in sub-paragraph (c) below of this paragraph (9) with special reference to the achievement of the performance benchmarks and development objectives incorporated therein;

(b) implement each annual work plan in a manner satisfactory to the Association, with the goal, inter alia, of meeting the performance benchmarks and the development objectives set forth therein; and

(c) implement the Project until the formulation of the first annual work plan in accordance with an interim plan agreed with the Association.

10. Each Project State shall ensure that: (i) its respective incremental budgetary allocations under the Project for the Primary, and First Referral Level Health Services for each Fiscal Year during the implementation of the Project shall be fully additional to the allocations made in FY 95; and (ii) the budgetary allocations for the annual work plans and the interim plan referred to in paragraph 9 hereof are made available on a timely basis sufficient to meet the resource requirements under such plans.

11. Karnataka and West Bengal shall implement the Project in tribal areas (as designated by each such Project State) and West Bengal shall implement the Project in the Sunderbans Area in accordance with the principles, objectives and policies of the Tribal and Backward Area Development Strategy with emphasis on: (a) strengthening linkages between Primary, and Secondary Level Health Services; (b) providing an incentive package to doctors and other medical staff to work in the tribal areas of Karnataka and in the Sunderbans Area of West Bengal; (c) increasing the appropriate utilization of the medical system by the Scheduled Tribe population; (d) reducing the cost to Scheduled Tribes of utilizing such system in Karnataka; and (e) increasing the number of beds at sub-divisional and community hospitals.

12. PHSC shall carry out Part A.2 (ix) of the Project in accordance with procedures and arrangements satisfactory to the Association.

13. The Project States and PHSC shall, with the participation of the Borrower and the Association: (a) jointly carry out by June 30, 1999 a mid-term review of the Project, including on management aspects and financial sustainability, under terms of reference

satisfactory to the Association; and (b) carry out the recommendations of such review in a manner satisfactory to the Association.

INTERNATIONAL DEVELOPMENT ASSOCIATION

CERTIFICATE

I hereby certify that the foregoing is a true copy of the original in the archives of the International Development Association.

S. N. Chi

FOR SECRETARY

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INDIA
PROPOSED STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
(KARNATAKA)
INTERNATIONAL DEVELOPMENT ASSOCIATION

AIDE-MEMOIRE (MARCH 1995)

1. An International Development Association (IDA) team consisting of Messrs./Mmes. T. Nawaz (mission leader), P. Sudharto, E. Dib, S. Rao-Seshadri, K. B. Banerjee and D. Porter visited Karnataka between February 23 and March 2, 1995 to review the preparation of the proposed State Health Systems Development Project II. The mission would like to express its gratitude to the Chief Minister of Karnataka, Mr. H.D. Deve Gowda and the Health Minister of Karnataka, Mr. H.C. Mahadevappa, for meeting the team to discuss the overall objectives and the concept of the project. The mission also met with Mr. S.B. Muddappa, Chief Secretary, Mr. C. Noronha, Additional Chief Secretary and Mr. B.K. Bhattacharya, Additional Chief Secretary and Principal Secretary, Finance Department, Government of Karnataka. The mission would like to thank Mr. Gautam Basu, Secretary Health and Family Welfare Department, Government of Karnataka, and his colleagues for their cooperation and hospitality. A wrap-up meeting was held with Mr. Basu and his staff, as well as officials from the Finance Department, on March 2, 1995 in Bangalore.

2. This aide-memoire records the overall progress made in the preparation of the proposed project and summarizes the main findings and recommendations of the mission and the understandings reached with the Government of Karnataka.

PROJECT OBJECTIVES AND COMPONENTS

3. Objectives: The Government and the Bank reaffirmed that the main objectives of the project would be to: (i) improve efficiency in the allocation of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level. The achievement of these objectives would contribute to improving the health status of the people of Karnataka, especially the poor and the underserved, by reducing mortality, morbidity and disability.

4. Components: It was agreed that the project would have the following major areas of investment: (i) Management Development and Institutional Strengthening including (a) improving the institutional framework for policy development; (b) strengthening the management and implementation capacity of institutions including structures, procedures, management information systems, culture of service delivery, resources and training; (c) developing surveillance capacity for the major communicable diseases; and (ii) Improving Service Quality, Access and Effectiveness by: (a) extending/renovating community, area and district hospitals; (b) upgrading their clinical effectiveness; (c) improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels.

POLICY FRAMEWORK

5. The mission notes with satisfaction that the dialogue on key sectoral policy issues has progressed considerably. The Chief Minister and the Health Minister reaffirmed their strong support for improving the quality of services and for deploying adequate resources to achieving these goals. Senior officials of the Government of Karnataka informed the mission that the Government is committed to a policy package of health sector reforms reflecting key sectoral development issues for the primary and secondary levels of health care. These include the need to: (i) set up a Strategic Planning Cell under the Health Secretary to undertake analyses of health sector issues; (ii) formulate an effective surveillance system for the major communicable diseases; (iii) contract out selected services, especially supporting services; (iv) review the policy framework for private provision of health care services; (v) increase the overall size of the health budget; (vi) redress the imbalance in public expenditures between the different tiers of health care system; (vii) safeguard the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential medical materials and maintenance of equipment and infrastructure; and (viii) implement service improvements and user charges.

6. User Charges.It was agreed that introduction of user fees for certain services such as paying beds, charges for diagnostics and drugs, and registration fee for in-patients was essential to achieve financial sustainability. Measures, however, would need to be developed for exempting the poor. It was agreed that user fees would be used specifically for non-salary recurrent cost purposes. The Department of Health also proposes that a high proportion of funds collected through user charges would be retained at the point of collection. This was discussed with the Finance Secretary who responded positively to this suggestion. It was also agreed that the Government of Karnataka would have prepared a draft Letter of Health Sector Policy confirming its commitment to instituting action on the above sectoral policy issues by the project appraisal mission.

7. Linkages with other health sector projects. The mission is pleased to note that the proposed project would complement and consolidate investments made by on-going Population, Health and Nutrition projects in Karnataka by providing policy and implementation coordination with other health and family welfare projects. For example, the strengthening of the first level referral for obstetrics and child care in this project through the provision of essential clinical and diagnostic services would complement the primary level of services being provided under Population VIII, Population IX and CSSM projects. The proposed project would also fill some of the input gaps in primary health care in tribal areas (excluding family welfare, which is already being addressed in Population IX). Discussions were held with consultants to KfW on the scope of the proposed project to upgrade primary and secondary health care facilities in five districts in Northern Karnataka. It was agreed with the Government that World Bank project inputs in those districts would be complementary and avoid duplication.

PROJECT PREPARATION PROGRESS AND RECOMMENDATIONS

8. Good progress has been achieved in project preparation activities since the last mission. What is now required is final consolidation and updating of past efforts to reflect understandings reached during this mission. In order to expedite further project development, it was agreed that a multi-disciplinary Project Coordination Team would be set up. A designated Coordinator would be appointed, and would be assisted on a full-time basis by a Technical Officer from the Directorate of the level of a Joint/Additional Director, who would consolidate individual project development activities. Given the size of the project and the policy issues involved, it was proposed that an IAS officer with direct access to the Secretary, Health and Family Welfare would be nominated to act as Project Coordinator. In addition, the Project Coordination Team would need to be strengthened to include additional personnel experienced in clinical training and referral, equipment management, and physical works.

9. With regard to project scope, it was noted that the government has already revised the original proposal to reflect a more realistic approach. This would take into full consideration staffing constraints and financial viability. The selection of facilities would take into consideration specific criteria, including poverty, gender concerns and specific needs of scheduled castes and scheduled tribes. In order to select facilities for upgradation, it is agreed that the mapping exercise underway would be completed and facilities in tribal areas would be flagged.

10. Workshop. The project preparation workshop held in Bangalore on February 28 to March 1 provided a useful participatory mechanism for defining the roles and functions of the various types of health facilities and referral hospitals by involving key people in project preparation and design. In addition to being attended by key people in the medical profession in Karnataka, the workshop was attended by senior health officials from West Bengal, Punjab and the Center. The workshop: (i) reviewed, defined and recommended the range of clinical, technical, administrative and domestic services that ought to be provided at the various levels of hospitals up to the district level; (ii) clarified the range of services available at primary health centers and tertiary hospitals and thereby provide the critical links in the referral mechanism; (iii) recommended the norms for physical assets, equipment, instruments, furnishings, materials etc. that would be needed to provide services of adequate quality, based on the proposed range of services reviewed; (iv) reviewed the key management and administrative issues at the three types of referral hospitals; and (v) reviewed the policy framework and key issues in the primary and first referral levels of health care. The findings of the workshop will be issued by the Department of Health within the next few weeks and it was agreed that the findings would be used for further project development.

11. Project Administration and Management. The project proposal provides the administrative and management structure under which the proposed project would be implemented. However, the implications for project administration and financing mechanisms resulting from the devolution of responsibility to local bodies need to be further clarified.

12. Site Survey and Preparation of Physical Works. It was agreed that the Government would undertake an extensive survey of all health facilities at the secondary level. This would include: list of all existing health facilities, detailed survey of each facility, cadastral plans of the facilities, 'as built' drawings of existing buildings, schedules of accommodation, and physical survey of buildings requiring renovations only. It would need to be ensured that required land will be available to allow for extensions at upgraded facilities. Details are provided in Annex 5. The mission has agreed to arrange grant funds to conduct site surveys as well as inventory of equipment at existing facilities (see below).

13. Inventory of Equipment. A start has been made in gathering information from each facility that will receive inputs under the proposed project concerning the nature and state of its current inventory. Suitable proformas have been designed to simplify data collection and standardize recording, and the local consultants contracted to undertake pilot surveys at two facilities made use of these when visiting sites and interviewing staff. If necessary, the proforma should now be revised taking account of the norms determined at the Workshop. The project preparation team of the Government, and specifically the officer responsible for equipment issues, should verify the data collected by the survey consultants by spot checks at a reasonable number of facilities. Furthermore it should analyze the returns to establish what new equipment, or necessary maintenance or repair work, at each facility needs to be procured and funded to bring the inventories up to the accepted norms. The work will require access to a computer system with data-base and spreadsheet software.

14. Equipment Maintenance. The current capacity to deliver appropriate maintenance and repair services within the public health services is minimal. No efficient or cost-effective services can be expected to develop without a significant in-house capability to deal with the entire range of equipment management issues from specification, through procurement, installation, commissioning, training of users, maintenance and repair services, finally to obsolescence and planning a new cycle. The separate but related issue of how maintenance and repair is best conducted, by in-house teams or contractors, needs to be considered at an early stage and recruitment of appropriate key personnel to be groomed for the combined roles of technical manager, service specialist and trainer must be initiated as soon as possible.

15. Workforce. It was agreed that the proposed levels of staffing for medical and nursing cadres would be reviewed. In addition, strategies will be developed to improve the recruitment, deployment and retention of staff where difficulties of posting and retaining staff are being experienced.

16. Referral System. The mission met with officials in charge of service delivery and discussed the existing referral system and its deficiencies. To improve the referral mechanism and strengthen linkages with primary health care it was agreed that administrative directives would need to be issued and communications between different levels of the health care system would need to be improved. In collaboration with health officials, the mission has identified necessary steps and activities to be taken during the preparation of the project. Annex 3 provides details.

17. Clinical skill training. The mission has reviewed the training needs document. It was noted that clinical training needs would need to be linked to service norms at each level as defined by the workshop. Based on this, the Government would draw up a clinical skill training plan. Annex 4 describes the necessary steps. The mission recommends that the responsible officials visit Andhra Pradesh and review their preparatory work in clinical skill training.

18. Plan for Developing Surveillance Capacity for Major Communicable Diseases. It was agreed at the Workshop that the Government would draft a development plan for a state-wide system for communicable disease surveillance. This would be made available to the next mission for consideration as part of the project proposal.

19. Detailed Project Costing. In revising the project proposal, it was agreed that a number of detailed cost tables would be prepared reflecting cost by individual components and sub-components of the proposed project. A model cost table was discussed and some samples were left with the Department.

20. Drug List and Formulary. The mission noted the need to develop an essential drug list and formulary, such as the one in Andhra Pradesh, with suitable modifications to reflect the epidemiological profile in Karnataka. This was discussed at the Workshop and recommendations were made for immediate action.

21. Plan for Disposal of Medical Waste. It was agreed that a plan for the disposal of medical waste would be prepared in order to mitigate the potential risks related to service delivery. This plan would recommend specific actions that would be incorporated into project design.

22. Tribal Plan. It was agreed that a Tribal Plan integral to specified project components would be developed based on the findings of the Beneficiary/Social Assessment Study discussed below and other available information.

23. Beneficiary/Social Assessment and Private Sector Studies. A Beneficiary/Social Assessment proposal has been discussed with the Government, and a final proposal will be made available to the mission shortly; terms of reference are attached as Annex 1. A study of the private sector has also been discussed with the Government, and a final proposal will be made available to the mission shortly; terms of reference are attached as Annex 2. The mission agreed to arrange grant funds for conducting both of these studies.

24. Performance Indicators. It was agreed that a discussion on performance indicators would be initiated, and a preliminary list of indicators would be discussed with the next mission.

25. Assessment of Fiscal Capacity. A draft terms of reference for an assessment of the state's fiscal performance was discussed with the Additional Chief Secretary and Principal Secretary, Finance. The Government objected to commissioning consultants for carrying out such a study. However, the government agreed to provide data to support its position that sufficient resources are available for sustaining its fiscal position.

26. Next Steps. The IDA project preparation team will return to Karnataka towards the end of May or early June. Depending on the progress made and early delivery of the revised project proposal, it will be decided whether further preparation work prior to preappraisal is necessary.

March 2, 1995

ANNEX 1

BENEFICIARY SOCIAL ASSESSMENT

Terms of Reference

Objectives. The main purpose of undertaking a Beneficiary/Social Assessment of the proposed project would be to provide an understanding of the who the potential project beneficiaries would be, where they are located and their socio-economic status. To bring better care within easy access to needy populations, particularly the scheduled castes, tribes and populations residing in remote and far-flung areas, it is also necessary to understand the health seeking behavior and attitudes of these disadvantaged groups. Opinions of these key stakeholders, particularly their felt needs, motivational factors, behaviors, lifestyles, work patterns, access to resources, power equations within groups and with other groups should be better understood for planning and designing the proposed project on need based issues. The Beneficiary Social Assessment would provide the basis for policy guidance to (a) ensure that tribal populations benefit from the proposed project and (b) avoid or mitigate potentially adverse effects on tribal populations. The proposed project would seek to include appropriate components or mechanisms to ensure that the social and economic benefits recieved by such groups are in harmony with their cultural practices.

Components of the Proposed Study. It is, therefore, proposed that a study be undertaken to understand these crucial issues with the following objectives:

1. Describe the social services currently being offered by the government in tribal areas and for women i.e. programs in nutrition, education, family welfare and health;

2. Undertake a Social Context Analysis i.e. identify and select areas that are geographically, socially and culturally distinctive within the state, diffentiating also between urban and rural areas. Present some basic demographic data with regard to scheduled caste and scheduled tribe populations[1];

3. Undertake an Institutional Analysis to understand the supply factors that adversely influence health care utilization i.e. a description and analysis of the roles and linkages (if any) between the traditional and allopathic systems of medicine in the different areas. The analysis should include groupd that have a direct and indirect interest in the outcome of the project, e.g. traditional and allopathic medical communities, local leaders and elites, community organizations etc.;

4. Determine the Health Needs of the community through: (i) Demand analysis i.e. analysis of service utilisation of government services within both traditional and non-traditional health systems and (ii) Supply Analysis i.e. an analysis of the of the current distribution of health care facilities for needy populations, particularly tribals living in far-flung areas;

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[1] Basic demographic data would include such information as number of tribes, their population, distribution of tribal population in the state, socio-economic status, birth and death rates, sex ratio, literacy rates, mode of subsistence, economic activity etc.

5. Assess the perceptions and attitudes related to the Health Seeking Behavior of disadvantaged populations, particularly women and tribal populations, by investigating factors affecting physical, social and economic access to health facilities[2]; and

6. Estimate the Private Costs of seeking treatment, including both monetary and non-monetary costs.

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[2] Measures of Physical Access include distance to be traveled, arrangements made when traveling, availability of transport, travel time, waiting time at destination, availability of appropriate services, drugs and supplies at facility, convenience of working hours etc. Measures of Social Access include local beliefs and practices, particularly with regard to maternal and child health, diseases of adults and children which are prevalent and for which medical care is sought, availability and recourse to a tribal doctor, attitude of health facility staff towards tribal peoples etc. Economic Access variables include treatment costs, comparative cost of seeing the tribal doctor, transportation costs, costs of lost wages, socio-economic status of patients etc.

REVIEW OF PRIVATE HEALTH SECTOR

Terms of Reference

The role of the private sector in delivering quality health care continues to be underdeveloped inspite of substantial private investment. Recent research shows that private sector services are of very varied quality and are provided by a wide range of qualified, less-than-qualified and unqualified practitioners. Lack of regulations and effective legal remedies contributes to inappropriate practices. Private contractual services, specially support services, remain under utilized. There is a need to create an environment in which the private sector can provide cost-effective services, specially some prevetive and promotive care services.

Objectives. The main objective in conducting a review of the role of the private health sector in health care provision is to assess the quality of services provided by private care practitioners and to evaluate regulations relating to service quality. The review would also try to shed light on possibilities for expanding the scope of private sector involvement, particularly in the voluntary sector.

Components of the Proposed Study. The review should provide the following data, description, and/or analysis:

1. Describe the scope of the private sector, including the size of the sector, the services offered, geographical and social spread of the sector, what fees, monetary and non-monetary, are charged by profit and not-for-profit private sector organizations for the specific services provided;

2. Describe the health sector NGOs operating in the state - which are the important ones? where do they operate? what activities do they specialize in?

3. Define the coverage of the groups via alternative medical systems (e.g. ayurvedic), the acceptance of alternative medical systems among social groups (especially the poor, tribal communities and women) and estimated cost of such treatment;

4. Assess the quality at private sector institutions relative to public sector at each level according to performance indicators[3]; summarize the lessons the public sector could learn from the private sector in terms of improving all aspects relating to the quality of health services and user fees;

5. Assess to what extent it would be feasible for the government to contract out secondary care to the private sector for specific diagnostic, therapeutic or support services? Analysis of this should be based on economic as well as social and institutional considerations;

6. Analyze and assess to what extent the state health secretariat/directorate regulates, accredits and monitors private and ayurvedic services;

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[3] See AP Health SAR Annex 18.

7. Provide a brief analysisof the consumer protection act as it relates to the health sector currently under government review;

8. Assess the future demand for health care services by studying the utilization pattern of both public as well as private health care institutions; and

9. Suggest ways in which public sectoral planning could be improved: what is the future of the private sector in the respective states and how would this affect public sector institutions; how could monitoring, regulation and accreditation of private sector health facilities be undertaken.

ANNEX 3 : STRENGTHENING THE REFERRAL SYSTEM.

1. At present the referral system in the state is not functioning effectively. Some of the reasons are: patients are directly proceeding to hospitals for minor illness which overload the hospitals, patients perceive the lower level facilities as providing lower quality services, and lack of organizational and management links between PHCs and hospitals at various levels.

2. An effective referral system which minimizes by-passing of lower levels of health facilities has the following characteristics: i) patients should first receive care at the lower facilities where appropriate initial treatment can be given and a decision made about the need for referral to next level; ii) there should be a designated focal point for the reception of referrals at the first referral hospital; iii) the referred patient should be seen promptly by someone at a superior level of expertise, this will establish trust of the referring and the referral institutions. Patients may be referred from one level to the next for: clinical examination or special examination, consultation or expert advice, intervention and inpatient care.

3. The proposed project will aim to improve the current referral condition. The following points are necessary steps that were discussed with the health officials during the mission:

1) Assess the current referral system and pattern, including transportation used to carry critical patients in an emergency from one level of health care to the next.

2) Review the grouping or linkages between different tiers of the system e.g. which PHCs ('feeders') refer to a particular CHC/GH, which CHCs/GHs to a particular Taluka hospital, and then to District hospital.

3) Develop procedures or administrative directives to facilitate the referral system which include the following:

- referral protocols for providers that specify the "what", "when" and "how";
- guidelines for the higher level facilities on how to provide technical support to the lower level facilities (eg. regular meetings, outreach or visiting by specialists);
- preparation of forms for sending with referred patients;
- identification of a 'unit' in the receiving facilities for accommodating referred patients;
- consideration of direct access to diagnostic facilities for referred patients to avoid queuing again;
- preparation of forms to feedback information on patients to referring facilities.

4) Determine the transportation and communication needs for improving the referral system. This includes need for vehicles for transporting patients in an emergency and telephones for communicating in advance the condition of such referrals. Regarding vehicles, consideration should be given to the types of vehicles, where to place these (at PHCs, CHCs, or Taluka hospitals), whether to procure, lease or hire, suitability for use in urban or rural conditions, and the number of the vehicles. Special attention should be given to the needs of areas with disadvantaged groups or tribal communities. Charging of user fess for the use of such vehicles will be considered.

5) Consider practical mechanisms on how to operationalize the referral system. Are referral committees like those to be established in AP necessary for monitoring the implementation of the referral system or is some other mechanism more effective in Karnataka ? (See AP-SAR Annex-11).

6) Investigate methods for disseminating information regarding referral system (IEC). Who are the target groups, what communications media and channels to be used?

7) Propose an incentive system for the patients and providers who follow the procedures such as reducing waiting times for those patients carrying referral slips and levying reduced user fees.

8) Show how the proposed project will link with other WB-assisted projects such as IPP-9, IPP-8 and CSSM in referral matters, to avoid duplication.

9) Develop a plan of action for project preparation and an implementation plan for the project duration, with detailed description by year with regard to referral activities.

10) Cost the activities to be undertaken separately during project preparation and implementation.

4. The working group responsible for developing the referral protocols could use the following questions as an agenda for discussion.

1) What conditions should be referred?

	For further clinical examination/ investigation	For consultation or expert advice	For intervention (e.g: surgical, radio-therapy)	For inpatient care
PHCs facilities to CHCs, Talukas, District Hospitals and tertiary hospitals				
CHCs to Taluka Hospitals, District Hospitals and tertiary hospitals				
Taluka to District Hospitals and tertiary hospitals				
District Hospitals to tertiary hospitals				

2) Action to be considered prior to referring:

- What to do before sending the patient ? (e.g. critical patients needing stabilization, required examinations, etc.)
- What essential information should accompany the patient, e.g. standardised referral forms, clinical examination results, other results such as lab test or radiology examination. The information should be sufficient to ensure continuity in patient care, but not burdensome to the staff.
- What are the transport arrangements for critical patients.

3) **Counselling and information** for the patient prior to the referral. This could include: purpose of referral, how the referral will benefit the patient, where and when to go, what is likely to happen at the referral hospital, what will be the cost to the patient, what precautions need to be taken or preparations made before referring a patient..

ANNEX 4 : STRENGTHENING CLINICAL SKILLS

1. The effectiveness of the referral system depends on the quality of services provided at various levels in the system. In order to improve the quality of the clinical services, the state should establish a system of regular in-service training for all categories of staff who provide clinical and diagnostic services. Clinical training will be aimed at upgrading clinical knowledge and practical skills, and to enable staff to provide good quality care within the service norms defined by the workshop.

2. The following steps are suggested by the mission:

1) Conduct a rapid training need assessment [TNA] to identify clinical training needs of physicians and nurses in the facilities. This should cover all types of facilities from CHCs to district hospitals.

2) Identify training priorities, using the TNA result.

3) Draft training specifications: where the training should be conducted, who should provide the training, what methodology, duration, stipend, accommodation arrangements, etc.

4) Prepare course curriculum for each cadre.

5) Prepare modules for each type of training (e.g. surgery, ob-gyn, anethesia, pediatrics), using available materials, WHO references, AP modules, etc.

6) Conduct training of the trainers.

7) Conduct coordination with other training programs from other projects [CSSM, IPP-9] in terms of course curricula, resources, modules. Explore possibilities of using trainers or co-trainers from these projects.

8) Develop training activity plans to be implemented during the project preparation and throughout the project life, with details by year. How many staff will be trained. Taking into consideration the material support for the training courses, define which activities will be implemented during project preparation and which activities during project implementation.

9) Develop evaluation methods for training activities.

10) Draft proposals on appropriate use of technical assistance or consultancy to prepare TNA, course design, curricula, training modules and TOTs.

11) Cost the activities to be undertaken separately during project preparation and implementation.

ANNEX 5 : PHYSICAL WORKS

(3)

ACTION PLAN:

The following activities with regard to physical works of the proposed Health Systems Development Project II need to be undertaken.

1. Finalize the list of the health facilities that are to be upgraded under the proposed project. Also, prepare a map showing the locations of these facilities.

2. Prepare a detailed survey of each facility following the model used in Andhra Pradesh with improvements suggested by the Department of Health.

3. Collect existing cadastral plans of the facilities and, if these are not available, survey and prepare new site plans indicating boundaries, access ways, layout of existing buildings and available services.

4. Ensure that required lands will be available to allow extensions for upgraded facilities.

5. Prepare 'as built drawings' of all existing buildings on each site, indicating the use of each space as well as cross dimensions and area in square meters or square feet.

6. Prepare physical surveys of buildings requiring renovation works only, with complete description of the scope of works including specifications, bill of quantities and related cost estimates.

7. Prepare schedules of accommodations for each proposed extension, covering all the functions required with the net area of the related space indicated in square meters or square eet. Allowance should be made for the overall gross area to cover circulation and thickness walls.

Start the pre-qualifications of experienced architects and architectural firms and short list e who are specialised in hospital design and eligible for recruitment.

ecruited design architects and/or architectural firms should prepare preliminary designs proposed new facilities in consultation with users (i.e. the head of the hospital and key nd also the Public Works Department (PWD) Design Department.

uit two senior architects experienced in hospital design as resource persons to ith the design firms and users. The users should form a committee that will actively in the development of designs through meetings, workshops and site visits.

'D Design Department with the assistance of the 'users' committee' should adapt manual prepared for the Andhra Pradesh project.

IMPLEMENTATION SET UP

12. The mission discussed in detail with the Chief Architect and Deputy Chief Architect of the PWD Design Department the set-up required for the implementation of civil works under the proposed project. The outcome of the discussions described below was also reviewed and discussed with the Department of Health.

PREPARATION OF DESIGNS & DRAWINGS

13. The PWD Design Department, headed by the Chief Architect, will be responsible for the preparation of designs and drawings to be undertaken by architects and architectural firms. The Design Department will be reinforced by two senior architects experienced in hospital design. These two consultants will interact with the architectural firms and the users, and will monitor and review the designs, drawings, construction details and technical specifications. Structural, plumbing and electro-mechanical designs and drawings will be reviewed by engineers deputed from PWD. These engineers will be under the administration of the Design Department.

SUPERVISION OF CONSTRUCTION SITES

14. To ensure good quality supervision, the supervision of each hospital site will be contracted with the architectural firm that prepares the designs and drawings. The monitoring of supervision will be done by the Design Department's two senior architects and the engineers deputed from PWD. The Chief Architect will certify works and bills submitted for payment.

PROCUREMENT OF WORKS

15. Procurement of civil works is the responsibility of the PWD. This Department handles the advertisement for bids, issuance of bid documents, receipt and evaluation of bids, and the preparation of bid evaluation report including the recommendations of the Tender Board Committee. Contracts for construction will be signed by the Department of Health and payments effected by the same.

BIDDING DOCUMENTS

16. The bidding documents for the procurement of civil works will comprise the following:
    a) Drawings: Covering architectural and working drawings; construction details, structural, plumbing and electro-mechanical drawings.
    b) Specifications
    c) Bill of Quantities
    d) General and Special Conditions
    e) Instructions to Contractors
    f) Bid and Performance Bonds
    g) Contract Form

17. Standard bid documents for local competitive bidding (LCB) for the procurement of civil works, already approved by the state of Karnataka and the World Bank, will be used without any alterations or modifications. If and when a paragraph is not relevant (for example, a small volume job), it should be brought to the attention of the Bank for review and comment prior to the use of the document for bidding.

18. Standard bid documents for international competitive bidding (ICB) and LCB for the procurement of goods, already approved by the State and the Bank, will be used under the proposed project.

COSTING OF CIVIL WORKS

19. Cost estimates for renovation/repairs should be prepared during the survey of facilities and should be based on the scope of works of each facility along with related specifications and bill of quantities.

20. When using a unit cost to estimate the cost of new construction, the unit cost should be based on the average costs of gross area for different types of construction (laboratories, operation theatres, kitchen, toilets and others) and should be inclusive of all works. However, costs of site development works may be calculated separately. Final cost estimates will be calculated on the basis of the established bill of quantities and ongoing rates for new construction. Also, costs of topographical site surveys and soil tests and analysis should be accounted for.

21. Estimates should be based on base line costs only. Note that physical and price contingencies should not be added in the cost; they will be computed and added by the Bank.

MAINTENANCE OF BUILDINGS

22. The mission visited a number of hospitals and noted the lack of appropriate and adequate maintenance. Buildings are becoming dilapidated quickly, seepage of water though roofs, and broken fittings and fixtures needing repair remain unattended for months. This is resulting in loss of valuable assets.

23. The present set-up for building maintenance is ineffective. Buildings are not adequately maintained; they are left to deteriorate before tenders are called for repair. Appropriate maintenance set-up with adequate yearly budget is needed. The Department of Health may need to hire local consultants to evaluate the extent of damage resulting from poor maintenance and due to inadequate budgeting for appropriate maintenance. Such consultants should be asked to recommend practical and efficient maintenance arrangements.

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INDIA

STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
KARNATAKA

SUPERVISION REVIEW

May 2000

AIDE-MEMOIRE

1. An International Development Association team consisting of Messrs./Mmes. T Nawaz (Team Leader), D. Peters, S. Chowdhury, P. Kudesia, G.N.V. Ramana, M. Voss, H. H. Pyne, D. Porter, and C. Giles, reviewed implementation of the Second State Health Systems Project (Cr. 2833–IN) in Karnataka between May 10 – 15, 2000. The mission met with Mr. M. Reddy, Health Minister and Mr. B. K. Bhattacharya, Chief Secretary, Government of Karnataka and discussed the overall progress of the project. The mission also met with Mr. A. Sengupta, Secretary, Health and Family Welfare, Government of Karnataka; Mr. S. Kaul , Commissioner, Health and Family Welfare; Mr. A. Risbud, Project Administrator, Karnataka Health Systems Development Project (KHSDP) and senior staff of KHSDP. The mission jointly reviewed this project along with the IPP VIII, IPP IX and Reproductive and Child Health Projects (RCH) and discussed issues related to the integration of the various programs. Separate aide-memoires have been discussed for these projects. Discussions were also held with the Task Force on Health and Family Welfare, Government of Karnataka, and the Bank team was joined by P. Heywood, Team Leader, Disease Control and Nutrition cluster of projects. Future analytical and lending work was also discussed with the government. The mission wishes to thank the officials for their cooperation and hospitality.

2. Project implementation progress is recorded in : (i) the Background Papers for Review of the Project, May 2000 prepared by KHSDP; (ii) the Interim Report of the Task Force on Health and Family Welfare – Karnataka, Towards Equity with Quality in Health, April 2000; (iii) the Summary of The Health, Nutrition and Population Initiative for Karnataka – towards equity and quality with focus on primary health care, Office of the Commissioner, Health and Family Welfare Services, May 2000; and (iv) the Report on Financial Progress, KHSDP, May 2000. The aide-memoire summarizes the main findings and recommendations of the mission.

3. **Project Development Objectives (DO).** Progress toward achievement of the development objectives of the project is satisfactory and implementation of agreed health sector policy measures is on track. DO1: Policy Indicators. Budgetary allocation. The expenditures for the health sector increased from Rs. 535 crores in FY96-97 to Rs. 819 crores in FY98-99. Budgetary allocations for the health sector have been enhanced to Rs. 1023 crores in FY 99-00 and Rs. 1113 crores in FY 00-01. The share of resources to the primary and secondary levels, as well as resources for non-salary recurrent costs (drugs and supplies, etc.), have also increased substantially since the beginning of the project. Cost Recovery. District Health Committees (DHCs) are collecting user charges for a range of services including fees for room rents,

laboratory and diagnostic services, selected surgery and medicines. User charges are being collected at all district hospitals. All revenues collected are being retained by the DHCs for deployment among hospitals in the district for non-salary recurrent expenditures. To date, about Rs. 1.8 crores has been collected and activities such as ambulance maintenance, repair of water and sanitary connections, purchase of supplies have been financed. Those below the poverty line, established through the JRY program, and entitled to a Green Card, are exempt from paying user charges. Contracting out. Contracting out of non-clinical services has been established in 24 hospitals and is being extended to another 41 re-commissioned hospitals. Contracting out of clinical services is being explored through the participation of NGOs. Overall, the project has made important impacts on the policies of the government in the health sector beyond the first referral level – in the areas of better management practices, drug procurement policy, performance monitoring and service norms at the primary and tertiary levels.

4. DO2: Access and Effectiveness Indicators. There has been a significant improvement in the following areas: increased availability of drugs and supplies at the facility level; meeting equipment norms and timely repair of equipment in upgraded facilities; increased referrals to higher level institutions; and increased access to basic health services for SC/ST and women. Quality assurance mechanisms at upgraded facilities are being established. These improvements are leading to increased credibility of services provided and are beginning to show greater patient satisfaction.

5. DO3: Activity Indicators. As part of the M&E mechanism, hospital activity indicators such as out-patient attendance, in-patient admissions and discharges, bed turnover rate, bed occupancy, average length of stay, and utilization of diagnostics and equipment are being collected. This information is being used to assess hospital performance and is being fed back to the respective institutions for follow-up action. Utilization of services at upgraded facilities is increasing substantially.

6. **Overview.** Since the last mission in November 1999 implementation of the project has been satisfactory. A new Project Administrator was appointed in mid-March 2000. Since the systems that were put in place earlier were well established, the transition in project management has been relatively smooth. Some areas have consolidated implementation while a few appear to have suffered due to the transition in project management arrangements. As had been recommended in the last mission, the focus of the project is now clearly shifting towards the software issues. The civil works component of the project is more or less on schedule for the civil works originally planned under the project, and project expenditures and disbursements are close to the target estimated in the SAR. To date, work has been completed at 90 hospitals and these are now in the process of being re-commissioned. Work is ongoing in another 101 facilities. The additional civil works start-up has been slow, and these activities now need increased attention to complete within the project period. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, referral, collection of activity indicators, and outreach programs to scheduled caste, scheduled tribe and women are progressing well. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. As had been recommended in the mid-term review (MTR), the project will now have to pay increased attention to the following areas:

the overall staffing of medical and para-medical personnel according to norms at re-commissioned facilities and the gap in skill-mix in the health sector overall; acknowledgement of the importance of the attitude of providers in improving service quality and patient satisfaction; quality assurance; HMIS; and IEC activities. The next mission planned for October 2000, will be one year after completion of the MTR. The mission expects the project management to report on the status of implementation of recommendations made by the MTR.

7. To date, Rs. 292 crores have been spent under the project, and disbursements in Karnataka under SHS II are about US $ 50 million. These figures are close to the SAR target, but with the extensive work program still remaining in the next two years, expenditures and disbursements need to be enhanced beyond the level of FY00. The procurement plan for FY01 has been reviewed and modified based on discussions during the mission. There are no outstanding audit issues. The financial management arrangements continue to function satisfactorily. The Government of Karnataka has budgeted about Rs. 130 crores for FY01, but the mission was advised that expenditures during the year could be enhanced to meet project activities.

8. **Management.** Project management continues to give priority to strengthening the coordination mechanisms among SHS II, IPP VIII, IPP IX, RCH and the KfW projects, and to strengthening its linkage with the Directorate of Health. It is also working closely with the newly established Task Force on Health and Family Welfare; this is one of the three Task Forces established by the Chief Minister, reflecting the commitment of the GOK to the health sector. Its Terms of Reference covers improvements in public health, stabilization of the population, improvements in management and administration of the Department of Health and Family Welfare, changes in the education system covering both clinical and public health, and monitoring the initial stages of implementation. Improved communication across the sector and the better use of resources have been two tangible results from early collaboration between the Task Force and the project management. As the Project Director is the Convenor of the Task Force, continued collaboration on improvements in health care delivery is expected. The Commissioner for Health and Family Welfare has also recently been appointed to oversee the activities of the Directorate of Health, as well as to coordinate the activities under IPP VIII, IPP IX, RCH, KfW and SHS II. He will play an important role in coordinating the Health Department in the areas that have sector wide implications, such as Health Management Information Systems and disease surveillance.

9. **Work force issues.** Recruitment. Project management will continue to oversee the recruitment of Bio-medical Engineers and Microbiologists which has been delayed due to administrative requirements. In the meantime, arrangements will be made to employ 5 qualified bio-engineers immediately on a contract basis. Clinical Mismatch. It is proposed to adopt a system-wide approach to ensuring the placement of specialists to meet the overall needs of the services, including agreed service norms in project hospitals. This approach is designed to elicit a higher degree of cooperation and satisfaction of clinicians in their postings, and to lead to a more sustainable outcome. It is anticipated that over two rounds significant progress will be made to addressing the mismatch. It was agreed that the mismatch of doctors in secondary hospitals would be reduced from xx% to yy% by October 31, 2000. Addressing this mismatch

satisfactorily will be a key element for the long-term success and sustainability of the health sector.

10. **Strategic Planning Cell (SPC).** The Terms of Reference have been finalized and no objection given by the Bank for the study on options and cost effectiveness of final disposal of waste. Selection of the external agency to undertake the study will now proceed. In addition, the study on Manpower Planning in the Department of Health and Family Welfare is progressing and a final report will be available by October 31, 2000. Documentation of the experience to date with the contracting out of non-clinical services in 30 KHSDP hospitals will now commence and be completed by October 31, 2000. In addition, a study on public/private mix will be commissioned. This study will be in two parts examining both medical institutions and private practitioners. Regarding medical institutions, the focus will be on their regulation, the overall number and need, and the content, quality and relevance of training. The examination of private practitioners will focus on an assessment of services provided, and on the development of a regulatory framework and of ongoing performance measures. The Commissioner, Health and Family Welfare will play an important role in the coordination of analytical and operational research work in the health sector through the SPC, and through coordination of the Task Force.

11. **Civil Works Component.** Progress to date on civil works continues to be very good. Of the remaining 14 works of the original plan, six have been grounded and four are in the process of finalizing bid evaluations since the last mission. The minor works, such as the district surveillance laboratories are all proceeding well. 90 hospitals have been completed to date. The additional works agreed at mid-term – 25 hospitals in Gulbarga Division which were transferred from the phase II of the KfW program, 4 Bangalore and 1 Mysore hospitals are proceeding relatively slowly. They will require additional technical manpower and other necessary support to implement the works within the time-frame. It was noted once again that the civil works component of the 4 Bangalore and 1 Mysore hospitals would consist of minimal civil works input, and the service norms for equipment and manpower would be brought to the level of district hospitals to enable them to function as referral hospitals. Implementation plans have been reviewed and individual hospital designs will now be prepared and reviewed. All civil works under the project will need to commence by December 31, 2000 in order to be completed and re-commissioned before the project closing date of March 31, 2002. The mission noted that it will not be advisable to start any new construction of hospitals after December 31, 2000.

12. **Procurement of Goods (equipment, furniture, vehicles, drugs, medical laboratory and other supplies, MIS and IEC materials).** The procurement plan for the final two years of the project (FY00-02) has been finalized. Of the proposed expenditure on equipment (Rs.18.3 crores), over 50% require completion of civil works before installation can commence. Therefore, deliveries of these are scheduled for the last 6 months of FY 01. This will entail a major effort by KHSDP in inspecting facilities and checking equipment deliveries, and then participating in the commissioning and hand-over processes. Plans need to be drawn up to ensure that there will be adequate managerial input to this work and technical supervision of the contractors and suppliers involved. No breakdown is given of the types of physiotherapy equipment it is proposed to procure for district hospitals; quantification and technical specifications are needed.

13. **Equipment Maintenance and Repairs.** Good progress continues to be made in the development and expansion of the planned network of maintenance workshops. Civil works are completed for 10 district workshops, and a further 8 schemes are in progress. Building estimates are under preparation for 2 more, and in the one remaining district (Chamarajanagar), a suitable site has still to be found. There should be no problem in completing all of these small-scale works well before the end of FY01. More critical than workshops is the issue of availability of skilled manpower, particularly bio-engineers to lead and manage these activities. The interim solution of hiring five bio-engineers on contract for two years is clearly not a long term answer. It will be necessary to recruit bio-engineers to the official posts established under the project well before project completion to ensure that they acquire appropriate skills and experience from the STEM consultants who have played the leading role in the development of the maintenance system. The benchmark for October 31, 2000 is to extend the computerization of the equipment asset and maintenance database to three districts, one each in the revenue divisions of Mysore, Gulbarga and Dharwad-Hubli.

14. **Surveillance.** The benchmarks agreed for disease surveillance have been partially met. Civil works at district surveillance laboratories are progressing, with completion of nine facilities. The report of functioning of the district level co-ordination committees has not been done in a manner that would provide any feedback. The benchmarks agreed are : (i) to hold a workshop for officials at state, district, taluka and lower levels to establish workable procedures for strengthening the surveillance system for the state by June 30, 2000 and (ii) based on the recommendations of the above workshop, standardize reporting formats and develop the required software and initiate pilot implementation in 2 districts by October 31, 2000.

15. **Training**. The different training programs for doctors and paramedicals under the project continue to be implemented as planned, and the benchmarks agreed for March 31, 2000 have been partially met. Training in some new areas are needed, based on feedback received from the hospitals and staff. In response to this, the project will develop training modules and curriculum for X-ray technicians and staff nurses in burn management. These training activities will commence shortly. The external evaluation of the impact of training on the performance of the trainees needs to be completed as a priority. Training during the remaining project period should focus on meeting the overall objectives of the project, with emphasis on improved health outcomes at the facility level. The benchmarks agreed are as follows: (i) finalize the draft report on external evaluation of clinical training by September 30, 2000; (ii) finalize appointment of external agency for the evaluation of administrative training by September 30, 2000; (iii) initiate training for X-ray technicians at KHSDP hospitals by August 31, 2000; and (iv) initiate training of staff nurses working at KHSDP hospitals in management of burns patients by September 30, 2000.

16. **Referral**. Efforts continue to be made towards achieving the previous benchmark of increasing the referral linkages between RCH, IPP IX and other health programs. The referral system under the project dealing with referral cards and registers being used at re-commissioned hospitals, is in place. An analysis of the referral decisions is, however, not being done. Such analysis would provide useful feedback to the management of the functioning of the system and quality of services being provided. Project management would need to continue to focus on expanding the referral system to the entire districts without waiting for all hospitals to be upgraded. The benchmark agreed for October 31, 2000 is to undertake a clinical review of

referral decisions over a three month period in Tumkur, the pilot district, and one other district where re-commissioning is at an early stage.

17. **Health Care Waste Management**. Studies on waste generation have been conducted in six hospitals. These give very useful information on the nature and quantity of different items in the waste stream at typical facilities. The results are generally in line with other findings in public sector hospitals in India. Data of this type will be useful to the consultants engaged to appraise final disposal options, and the project team should continue these studies in a selection of hospitals so that the final data is fully representative. The short-term and medium-term measures have been introduced in 50 hospitals and procurement is in hand to obtain materials for the remaining facilities. Manuals have been developed for 30 hospitals that are in the process of being re-commissioned and staff have received the first round of training in waste segregation, handling and disposal procedures. The mission discussed with the project team the need to raise awareness of hospital staff about the potential hazards of needle-stick, sharps and other injuries that could compromise their health through careless practices. There is a need to document the scale of this problem, to introduce procedures for logging injuries, recording actions taken to treat and counsel staff involved and, where relevant, to initiate appropriate measures to minimize the risk of further incidents. In addition to the initiation by the Strategic Planning Cell of the final disposal options appraisal study, the agreed benchmark for October 31, 2000 is to implement short-term and medium-term measures at all 65 re-commissioned hospitals.

18. **Improving Access to Health Services for Schedule Castes and Schedule Tribes (SC/ST)**. Implementation of the Yellow Card Scheme, an intervention aimed at improving access to health services among SC/ST populations, is progressing satisfactorily. The benchmark set in November 1999 to develop the terms of reference for an evaluation of the Scheme by an external agency has been met. Furthermore, a recommendation of the MTR to expand the Scheme throughout the entire state has been undertaken. To date, about 20,000 health check up camps, with an average of about 135 attendants per camp, have been conducted in all twenty seven districts. Of the total target population of 8.9 million, about 2.7 million (30.6%) SCs and STs have received medical screening at these camps. Seventy percent of the check-ups needed treatment, of which 3% were referred to a higher level health facility.

19. In addition to the rapid assessment of the pilot in 1996, in January 1999 and March 2000 project management reviewed the performance of the districts in conducting health check up camps. These reviews highlighted key problem areas and made recommendations for improving the Yellow Card Scheme: (i) improve flow of funds and supply of drugs and reagents from the District to PHCs; (ii) ensure full staffing at health check up camps; (iii) strengthen capacity of staff to conduct and manage outreach activities; (iv) involve community based organizations and local village panchayat leaders; (v) broaden the scope of the camps to include health education activities; and (vi) develop a outreach strategy to improve access and facilitate follow up services. The mission commends the efforts of PMC in monitoring the implementation of the Scheme, and urges the PMC to act promptly on the recommendations made by these reviews. Furthermore, continued improvement in access to services by women is essential. The benchmark agreed for October 31, 2000 is to review an interim status of the external evaluation of the impact of the Yellow Card Scheme by October 31, 2000.

20. **Information, Education and Communication (IEC).** Benchmarks identified in November 1999 called for a mechanism to coordinate IEC activities of health and family welfare programs and for selection of a professional agency to develop IEC materials. These benchmarks have not been met thus far. However, coordination between these programs is expected to proceed, given a commitment expressed by the new Commissioner of Health and Family Welfare and the Project Administrator of KHSDP. In addition, attended an IEC workshop in Mumbai in March 2000 to explore options for involving a professional agency to develop IEC materials. To date, the majority of the IEC activities undertaken by PMC staff has been facility-based. The activities have focused on providing information to hospital staff on issues such as referral, waste management, and proper use of equipment and maintenance. The mission recommends that PMC hire a consultant (communication specialist) to assist ongoing facility-level IEC activities, and to facilitate in the formulation of a community-oriented IEC strategy that includes an implementation plan for the remainder of the project. The agreed benchmark is to contract a consultant to assist ongoing IEC activities and to develop a community-oriented strategy by October 31, 2000.

21. **Management Information System (MIS) and Performance Indicators.** The data now being entered regularly into KHSDP's hospital MIS database has not yet been subjected to independent verification. While some progress has been made with the development of database management and analysis software with technical help from consultants, a common understanding needs to be reached of the definitions of several important indicators. Analysis of hospital management indicators needs to be improved. Solutions to these issues can be expedited by seeking technical assistance from one of the other State Health project teams that has successfully dealt with these matters. The quality of future management decisions on health care delivery and use of resources is dependent on accurate data. A two-stage process can be used to achieve this. Firstly, the project team should test the accuracy of the data it is receiving and take appropriate actions to improve the data quality. The second stage is to engage consultants to validate the database assembled over recent years and to develop with the project team the analytical framework for the management reporting system. The benchmarks agreed are: (i) to undertake an in-house verification of the HMIS data and provide a report on the analysis of this data by October 31, 2000; and (ii) based on the existing data, independently validate the HMIS system in place by March 31, 2001.

22. **Quality Assurance.** The initial approach to quality assurance adopted by Karnataka included a focus on facilities, administration and management, and infrastructure support services. In line with this approach, two rounds of performance review had been conducted involving 21 hospitals. The more recent quality performance review consisted of a team of specialists evaluating 20 project hospitals on performance indicators in the following service areas: maternity, sterilization, laboratory; pharmacy; and casualty. Initial results of this performance review have been tabled, and provide a basis for ongoing performance review.

23. Discussion centered on the need to adopt a comprehensive approach to quality assurance. This would include a focus on facilities (including infrastructure support) and administration and management and also a focus on data reliability, medical records (medical audit), clinical practice, including the development of a core set of clinical indicators, patient satisfaction and staff education. As part of this approach, and as a means of providing an ongoing mechanism for

clinicians to assess clinical performance, consideration would be given to the introduction of Quality Circles. In this way Quality Assurance mechanisms would be adopted across all project hospitals, and in the medium to longer term applied across the board at a state level as an important mechanism for sustaining the improvements in health care delivery. In the short term, the current set of clinical indicators should be monitored. A core set of indicators will now need to be decided upon, and these indicators should be tested and refined over time. The benchmarks agreed are to: (i) develop a TOR for a patient satisfaction survey by an external agency in a sample of re-commissioned hospitals by June 30, 2000; (ii) finalize the above report by March 31,2001; and (iii) provide an analysis of the ongoing quality assurance work and decide on a limited number of core indicators to monitor service quality by October 31, 2000.

24. **Compliance with Covenants**. All covenants are in compliance in the Karnataka component of the project.

KARNATAKA HEALTH SYSTEMS DEVELOPMENT PROJECT
Benchmarks

Management	Continue to strengthen coordination mechanisms among SHS II , IPP VIII, IPP IX, KfW and RCH Projects	Continuous
	Reduce mismatch of doctors in secondary hospitals according to norms—from ....% to ...%	October 31, 2000
Recruitment	Publish C & R Rules for the recruitment of Bio-medical Engineers and Microbiologists	October 31,2000
	Recruit 5 Biomedical engineers on contract	August 31, 2000
Strategic Planning Cell	Finalize the agency and initiate study on Options and Cost Effectiveness of final disposal of waste	September 30, 2000
	Update action taken on Karnataka Government Health Policy Matrix	Continuous
	Prepare a draft report on man power planning, in the Department of Health & Family Welfare	October 31,2000
	Finalize Issues and Options paper on Public-Private mix addressing the issues highlighted in the Policy Matrix and any other issues that have emerged since	October 31,2000
	Report on the experience with contracting out of non-clinical services at 30 KHSDP Hospitals	October 31, 2000
Contracting out Non-clinical services	Contract out non-clinical services in 65 re- commissioned hospitals (cumulative total)	October 31, 2000
Civil Works	Commence works at 195 (cumulative total) hospitals	October 31, 2000
	Ground all works including additional works agreed during MTR	December 31,2000
	Complete civil works at 115 hospitals and initiate the process of re-commissioning in all completed hospitals	October 31, 2000
Surveillance	Hold workshop for officials at state, district, taluka and lower levels to establish workable procedures for strengthening the surveillance system for the state	June 30, 2000
	Based on the recommendations of the above workshop, standardize reporting formats and develop the required software and initiate pilot implementation in 2 districts	October 31, 2000

Training	Finalize the draft report on external evaluation of clinical training	September 30, 2000
	Finalize external agency for the evaluation of administrative training	September 30, 2000
	Initiate training for X-Ray technicians at KHSDP hospitals	August 31, 2000
	Initiate training of staff nurses working at KHSDP hospitals in management of burns patients	September 30, 2000
Medical Waste Management	Implement short-term and medium-term measures at all 65 re-commissioned hospitals	October 31, 2000
Equipment Procurement and Maintenance	Extend computerization of equipment asset and maintenance database to 3 districts, one each in the revenue divisions of Mysore, Gulbarga and Dharwad-Hubli	September 30, 2000
Referral	Undertake a clinical review of referral decisions over a 3 month period in one pilot district and one other district where re-commisionning is at an early stage	October 31, 2000
SC/ST/ Gender Issues	Review interim status of external evaluation of the impact of yellow card scheme	October 31, 2000
IEC	Undertake an external review of the institutional–based IEC program	March 31, 2001
	Finalize strategy for community – based IEC for project activities	October 31, 2000
Quality Assurance	Develop a TOR for a patient satisfaction survey by an external agency in a sample of re-commissioned hospitals	June 30, 2000
	Finalize above report	March 31, 2001
	Provide an analysis of the ongoing quality assurance work and decide on a limited number of core indicators to monitor service quality	October 31, 2000
MIS	Undertake an in-house verification of the HMIS data and provide a report on the analysis of this data	October 31,2000
	Based on the existing data independently verify the HMIS system in place	March 31, 2001

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INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II (Cr. 2833-IN)

AIDE-MEMOIRE (MARCH 1997)

An International Development Association team consisting of Messrs./Mmes. T. Nawaz (mission leader), D. Porter, S. Rao-Seshadri, P. Sudharto, S. Chakravarty and R. Willey visited Karnataka between March 8-11, 1997 to review implementation progress of the State Health Systems Development Project II (Cr. 2833-IN) in Karnataka. The mission met with Mr. B. Eswarappa, Secretary Health and Family Welfare Department; Mr. B. R. Prabhakar, Chief Secretary, Government of Karnataka; Mr. B. P. Bhattacharya, Finance Commissioner; Dr. S. Subramanya, Project Administrator and ex-officio Additional Secretary ; and senior staff of the project. The mission wishes to thank the officials for their cooperation and gracious hospitality . A wrap up meeting will be held with Mrs. Shailaja Chandra, Additional Secretary, Union MOHFW and Mr. R.S. Sharma Director DEA.

Project implementation progress is recorded in the various documents prepared by the Karnataka Health Systems Development Project. The aide-memoire summarizes the main findings and recommendations of the mission.

General Overview. The project was approved on March 21, 1996, signed on April 18 and became effective on June 27, 1996. There have been changes in key personnel, including a new Health Secretary and a Project Administrator. However, the transition has been smooth, the project has progressed well and is on the right track. In particular, the civil works component, equipment procurement and some software aspects have progressed very satisfactorily. There is a core team now in place, and the activities and plans with regard to training, referral, disease surveillance, SC/ST component and equipment maintenance are progressing well. There is still much to be done to get the project firmly grounded, particularly with regard to the recruitment of some key personnel, defining the activities of the Strategic Planning Cell and clinical waste management. The Government Order for the opening of the P.D. account in the name of the Project Director and the District Surgeon in each district is expected to be issued shortly, and will facilitate the flow of funds. Expenditures till March 31, 1997 are expected to be about Rs. 140 million (about US$4.0 million), of which retroactive financing comprises about Rs. 112 million (about US$3.2 million). These are somewhat below the SAR projections, although disbursements are in line with what has been projected in the SAR. Benchmarks for activities to be undertaken in the coming months are provided in the Attachment.

Health Sector Development Program. Budgetary Allocations for the Health Sector. The budgetary allocations for the health sector were substantially enhanced between FY95-96 and FY96-97. Within the health sector, the share of resources allocated to the primary and secondary levels have also been substantially increased. For example, revenue expenditures for the primary and secondary levels were increased by 16% and 28% respectively between FY95-96 and FY96-97; and the share of the primary and secondary levels in revenue expenditures has also been increased. The covenant on increasing resources to the primary and secondary levels is in compliance. Cost Recovery Funds collected at the hospital level are being distributed by the District Health Committee to the hospitals based on the level of revune collection. This is beginning to make a difference with regard to some flexibility with recurrent funds at the institution level.

Management. The mission is pleased to note that the government remains fully committed to implementing the project expeditiously. The new Health Secretary and the Project Administrator, both of whom were appointed in January 1997, have consolidated the activities that had previously been initiated, and have provided good leadership to the project team. A core team is now in place, which will play an important role in project implementation. To facilitate the flow of funds, a Government Order is expected to be issued shortly, to open personal deposit accounts to be operated by the Project Administrator and District Surgeons in each district. With the progress of SHS II implementation, the coordination of various project activities will be consolidated with IPP VIII and IX, KfW and the proposed RCH project. The Bank mission will review this during every mission.

Recruitment. Recruitment is progressing well. The recruitment of key staff at headquarters is a priority, and Deputy Directors (6) for equipment, training, transport, HMIS and hospitals North and South need to be hired expeditiously. In addition, six teams of equipment maintenance personnel and 600 paramedics also need to be hired.

Civil Works. To date, preliminary designs have been completed for about 50 hospitals and it is expected that 90 preliminary designs will be complete by mid-July 1997. Final drawings have been prepared for about 19 hospitals and it is expected that 45 final drawings will have been completed by July 1997. The bid documents for 11 of these have been submitted to the Bank for clearance and work on 13 hospitals is expected to start by the end of June. Work will commence in a total of 30 hospitals by the end of November 1997. The first batch of works are expected to start by end of June 1997. In addition, award of work to architects for 160 hospitals in Phases I - IV is also expected to be finalized by July 1997.

The mission reviewed the proposal for the construction of a building on the premises of the ED hospital, Bangalore, to house the state surveillance unit which needs to be urgently relocated from Mandya to Bangalore to facilitate the coordination of project activities. The mission agreed with the plan to proceed with the first phase of construction, which will consist of the ground floor of a three-storied building.

It was brought to the attention of the mission that 8 hospitals in Uttara Kanrada district and 5 hospitals in Shimoga, Hassan, Mysore and Bijapur districts had been underfunded in the state's implementation plan. The mission reviewed the state's revised cost estimates for these facilities, and since they are within the allocation to the civil works component of the project, it agreed with the government's proposal to proceed with these works.

Medical Equipment. Bids have been received for 100 equipment packages tendered out by NCB (99) and ICB (1) for a total value of about Rs. 111 million. The mission gave guidance on procurement rules and procedures, and it is now anticipated that 30% (by value) of the current procurement plan, cleared by the Bank, will be completed by September 30, 1997. The mission agreed that, in future, minor items could be bought through local shopping within the limits defined in the Development Credit Agreement.

Repair and Maintenance. Existing Equipment. Based on the survey work completed in the pilot district Bijapur, it is evident that assets of significant value can be restored to operation, reducing the government's investment costs. The mission approved a proposal to engage consultants to undertake the defined scope of work necessary to repair and refurbish identified non-functioning equipment. The mission also approved the proposal to extend the survey to all the 19 districts, and

it is expected that this work will be completed by end-June 1997. The engaged consultants will then extend the repair and refurbishment program to the remaining districts, and complete this work by end-December 1997. Development of Maintenance Organization and Workshop Facilities. The mission agreed with the changes proposed for establishing maintenance services planned under the project. The revisions will not increase investment or operation costs beyond those originally estimated. The scheme will be phased allowing corrective measures to be taken based on feedback on service activities and performance criteria. In Phase I (3 years) all health facilities in 13 districts will be serviced from 4 divisional workshops, and 4 other workshops will be established in large urban centers. For the pilot district Bijapur, maintenance will be contracted out. The mission approved the TOR for procuring this service for 3 years. It is expected that all 9 service centers will be established and operational by end-of September 1997.

Drugs and Medicine. It was clarified that the drugs and medicine budget was allocated not only for the additional beds planned under the project, but also for enhancing the quality of services for existing beds. Project funds should, therefore, be utilized for topping-up the government's current allocations for drugs and medicine for existing beds.

Management of Medical Waste. Annex 10 of the SAR had outlined a plan for the management of medical waste. As a result of legislative action by the GOI and other developments since then, the mission reviewed this plan. A more concrete set of actions is now proposed, within the overall plan outlined in the SAR, distinguishing between actions to be taken within the hospital premises and actions to be taken with regard to ultimate disposal outside hospital premises. A three phase approach has been discussed and agreed with the government. The first phase (short term) would focus on the immediate reduction in hazards from clinical waste by the introduction of low cost/no cost measures such as simple segregation to remove sharps and infected waste, and secure on-site storage to reduce scavenging. A number of specific measures were discussed with the project team which could be introduced in the short term. The second phase (medium term) would include (i) scale up measures, such as fuller segregation and limited on-site treatment, including needle crushers; (ii) formation of an inter-disciplinary working group, as in West Bengal, but with the addition of a small task force to implement agreed measures; (iii) survey of waste arising and technological options; (iv) appraisal of options and cost-benefit analysis, where possible, for each hospital; and (v) design and implementation of training program. The third phase (long term) would focus on completion of options appraisal, development of appropiate management systems from cradle to grave, implementation of clinical waste management plans and implementation of full training program. It was therefore agreed that the proposal to procure incinerators, whether on-site or regionally, will be on hold until the all the options are sorted out in Phase III of the plan.

Strategic Planning Cell (SPC). The SPC has been staffed and it has been agreed that much of the work undertaken by the SPC will be contracted out. A number of activities are planned for the coming months including: (i) updating of actions taken on the Karnataka Government's Health Sector Development Program; (ii) analyzing the BOD work done by ASCI for Karnataka; (iii) initiating a study on user charges; (iv) evaluating the effectiveness of the yellow card scheme implemented during FY97; and (v) reviewing the implementation of District Health Committees and Referral Committees.

Training. The mission has reviewed and agreed on a schedule of activities to implement the training program under the project. Clinical Training. Substantial progress has been made with regard to planning training activities for specialists and nurses. It is expected that all training modules and the first batch of trainers will be trained by September 1997. The first batch of

training is scheduled to start in mid-March 1997. Management Training. Management training arrangements for executives, doctors and paramedics will be finalized by June 1997 and the first batch of training is scheduled to start in mid-July 1997.

Referral. In order to facilitate the functioning of the referral system at the district level, District Referral Committees will be set up in pilot districts by end-April 1997. Referral guidelines will need to be completed before piloting the system in District Chitradurga in mid-July 1997.

HMIS. Plans for the HMIS are being finalized, and it is proposed that a TOR for contracting the pilot scheme will be ready by mid-May 1997.

SC/ST Component. The project has made a good start in implementing the SC/ST component. It is proposed to extend the pilot yellow card, which has already been started, to the rest of the state by mid-July 1997. A mechanism needs to be developed to coordinate the gender component with existing family welfare programs and the proposed RCH project.

IEC. A plan needs to be developed to operationalize the IEC strategy outlined in Annex 12 of the SAR, coordinating activities with the family welfare program by October 1997.

Performance Indicators. The performance indicators need to be updated and the inconsistencies in the baseline data gathered during project preparation need to be rectified. The updating of these indicators should be continued every six months and will be an important input in measuring the gains in hospital activitiy, efficiency and quality improvement during the project period.

Compliance with Covenants. All covenants are in compliance with the exception of the one on the development of referral and clinical protocols, which is in partial compliance. This is expected to be complied with by June 1997.

Karnataka

Issue	Benchmark	Deadline
Management	Coordination between SHS II, IPP VIII and IX, KfW and the proposed RCH project will be reviewed during every mission.	
	Open and operate a personal deposit account in the name of the Project Director at the state level.	April 15, 1997
	Open and operate a personal deposit account in the name of the District Surgeon in each district.	May 15, 1997
Recruitment	HQ Staff:	
	Deputy Director, Equipment	May 15, 1997
	Deputy Director, Training	May 15, 1997
	Deputy Director, Hospitals (North)	May 15, 1997
	Deputy Director, Hospitals (South)	May 15, 1997
	Deputy Director, HMIS	August 15, 1997
	Deputy Director, Transport	September 15, 1997
	Other Staff:	
	6 teams of equipment maintenance personnel	May 15, 1997
	600 paramedics	June 15, 1997
Strategic Planning Cell	Update actions taken on the Karnataka Government Health Policy Matrix.	September 15, 1997
	Analyze the Burden of Disease study done by ASCI and review the cost-effectiveness analysis for Karnataka.	April 30, 1997
	Initiate a study on user charges.	May 15, 1997
	Evaluate the effectiveness of the yellow card scheme implemented during FY96-97.	May 30, 1997
	Review the implementation of District Health Committees and Referral Committees.	October 15, 1997
Civil Works	Complete 90 preliminary designs for Bank review.	July 15, 1997
	Complete final drawings and bid documents for 45 hospitals for which preliminary designs have been cleared by the Bank.	July 15, 1997
	Commence work on 30 of hospitals for which final drawings have been cleared.	November 30, 1997
	Award works to architects for 160 works in Phases I-IV.	July 15, 1997
Equipment	Complete 30% of the procurement of equipment packages as per technical specifications approved by the Bank.	October 31, 1997
Maintenance and Repair	Repair of existing equipment in pilot district Bijapur based on survey done.	May 15, 1997
	Complete survey of status of equipment in all districts.	June 30, 1997
	Extend and complete repair program to all other districts.	December 31, 1997
	Set-up and operationalize the nine planned equipment maintenance workshops (Phase I).	September 30, 1997
Clinical Waste Management	Within the overall plan outlined in the SAR, the project would:	
	Develop a short term plan based on low cost measures to improve clinical waste management in one pilot district and implement the plan.	July 31, 1997
	Develop a medium term plan to identify the major constraints on, and options for, an overall clinical waste management system.	July 31, 1997
	Modify the existing long term strategy utilizing the experiences and results of Phases I and II.	December 31, 1997
Referral	Set up District Referral Committees in pilot districts.	April 30, 1997
	Complete referral guidelines.	June 30, 1997
	Start pilot of referral system in one district (Chitradurga).	July 31, 1997

Training	Clinical Training for Specialists and Nurses: Complete all modules. Complete training of trainers (first batch). Start first batch of training. Management Training for Officers and Nurses: Clear TOR. Finalize management training arrangements, for executives, doctors and paramedics. Start first training session.	 September 30, 1997 August 31, 1997 March 15, 1997 March 31, 1997 June 30, 1997 July 15, 1997
HMIS/Surveillance	Finalize plan for HMIS. Finalize TOR for contracting pilot scheme.	April 15, 1997 May 15, 1997
SC/ST/Gender	Extend pilot yellow card program to the rest of the state. Make O&M funds available to the program. Develop mechanism for coordinating gender component with proposed RCH and other FW programs.	July 15, 1997 June 30, 1997 April 30, 1997
IEC	Develop a plan to operationalize the strategy outlined in Annex 12 of the SAR and coordinate activities with the FW program.	October 31, 1997

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INDIA

STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II

MID-TERM REVIEW : OVERVIEW

(Interim Report : June 1999)

1. An International Development Association team consisting of Messrs./Mmes. T. Nawaz (Team Leader), D. Peters, P. Kudesia, G.N.V. Ramana, P. Kakkar, D. Porter, A. Singh, C. Giles, M. Chand, S. Chakravarty and S. Rao-Seshadri initiated a mid-term review (MTR) of the Second State Health Systems Project (Cr. 2833–IN) between June 1 – 15, 1999. A five-day workshop was held in New Delhi with the participation of the project teams from the three states and the Bank team. The mission also visited West Bengal and Karnataka and previously, in April, had visited Punjab. For Karnataka, the mission met with Mr. A. Sengupta, Health Secretary, Government of Karnataka; Dr. S. Subramanya, Project Administrator, Karnataka Health Systems Development Project (KHSDP); and senior staff of KHSDP. For Punjab, the mission met with Mr. S.S. Channy, Managing Director, Punjab Health Systems Cooperation (PHSC), and senior staff of the PHSC. In West Bengal, the mission met with Mr. Partha De, Health Minister; Mr. M. Gupta, Chief Secretary; Mr. N. K. S. Jhala, Principal Secretary Health; and Mr. T. K. Das, Project Director and ex-officio Principal Secretary, Government of West Bengal and senior staff of the project. The mission wishes to thank the officials for their cooperation.

2. This overview of the aide-memoire summarizes the main findings and recommendations of the mission. The MTR has been initiated. However, it cannot be completed at this time since a number of activities need to be undertaken in each state. In Karnataka, the MTR is mostly complete but the MTR report undertaken by the Government needs to prioritize and cost the new proposals to be taken up during the remaining project period. In Punjab, the flow of funds from the State Government to the PHSC needs to be expeditiously resolved and re-costing of proposal activities undertaken. In West Bengal, the PMC needs to demonstrate sustained improvement in activities as reflected in increased expenditures and disbursements over the next three months. The PMC will also need to confirm the re-programmed implementation plan is realistic and can be completed in the remaining project period. It was agreed that these activities will be completed prior to a follow-up mission in late October 1999.

3. **Background**. The State Health System Development Project II, assisted with an IDA Credit of SDR 235.5 million, aims to assist the Governments of West Bengal, Karnataka and Punjab to: (i) improve efficiency in the allocation and use of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health services at the first referral level and selective coverage at the primary level to better serve the neediest sections of society. The project is an investment loan with policy reform in the areas of resource allocation for the health sector, capacity development for sector analysis and management strengthening, enhanced participation of the private and voluntary sectors in the delivery of health services, and implementation of user charges for those who can afford to pay. Project investments include: (i)

institutional strengthening for policy development and implementation capacity; (ii) improving service quality, access and effectiveness at the first referral level; and (iii) improving access to primary health care in remote and underdeveloped areas.

4. **Karnataka.** Progress toward achievement of the project development goals is satisfactory and the implementation of the project in Karnataka is highly satisfactory. Implementation of agreed health sector development policy measures is on track. Management arrangements and the mechanism for the flow of funds are working well. The civil works component of the project is on schedule, and expenditures and disbursements are expected to achieve the targets estimated by the SAR by the end of June, 1999. To date, 40 hospitals have been commissioned, and work is underway in an additional 105 hospitals. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, application of performance indicators, HMIS, and outreach programs to scheduled caste, scheduled tribe and women are proceeding well. Recruitment of doctors and paramedical staff is underway, and it is expected that specialists will shortly be posted according to norms in the 40 commissioned hospitals, thus addressing the issue of skill mix at these facilities. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. The project will now have to pay increased attention to software issues which acknowledge the importance of the role of clinicians and paramedics in improving service quality and patient outcomes.

5. **Punjab.** Progress towards achievement of the project development goal and implementation progress are both satisfactory. Project start-up was delayed due to the change in management and the continuing debate around the PHSC and the early ambivalence of the new government to the PHSC. However, this was satisfactorily resolved over time, but it diverted the attention of the Managing Director and the Principal Health Secretary at the early stage of the project when their focus should have been on resolving initial implementation issues. Project implementation since then has been relatively good in the context of the ongoing constraints in the flow of funds and the year delay in project start-up. All facilities and medical equipment transferred to the PHSC have been renovated, supplies have been provided, and initial clinical and managerial training has been done, improving the ability to deliver better services. There are major cost over-runs projected for civil works, requiring an urgent re-planning of future commitments. If the flow of funds problem and re-costing of the civil works can be resolved immediately, the project should be able to be completed on time. Planning and research capacities have been enhanced, so that most health sector development policy measures are progressing well. The PHSC has done well to strengthen the health management information system, introduce quality assurance processes and referral systems, and improve the user fees systems. However, it is unclear whether the proportion of State expenditure on health, and to primary and secondary levels of health care have been increasing. The MTR has so far reconfirmed the relevance of the project objectives and activities, but the mission is unable to complete the MTR until the flow of funds issue and the re-costing of proposed activities is completed. These need to be completed by the PHSC and the Punjab Government so that the final conclusion of the MTR can be made by the next mission in late October 1999.

6. **West Bengal.** Progress toward achievement of the project development goals is satisfactory and the implementation of the project in West Bengal is now also satisfactory. Implementation of agreed health sector development policy is on track. The slow implementation of the project during the first two years raises questions as to whether all planned project activities can be completed in the remaining project period. The mission believes that increased disbursements over the past three months is an encouraging indication of the increased pace of activities. It has reviewed the plans for the remaining project period and believes that they can be achieved provided the attention that has been provided to the project over the past 8 months is sustained. Management arrangements and the mechanism for the flow of funds are working well. The civil works component of the project is now fully geared up and work is in progress at 84 hospitals. Expenditures and disbursements are considerably below the targets estimated by the SAR for June 1999, mainly because of the delay in the civil works component. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, application of performance indicators, HMIS, and outreach programs in the Sunderbans component of the project are proceeding well. Recruitment of doctors and paramedical staff is underway, and it is expected that specialists will shortly be posted according to norms with the recruitment of 1,200 doctors. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. The devolution of the project to the DHCs has been effected and this is expected to bear excellent long term prospects for sustainability -- however, it has had a high cost in terms of short term implementation delays. In West Bengal, the interim MTR has so far confirmed the relevance of the project objectives, but it is not realistic to complete the MTR until the improved implementation is sustained during the next three months and it is possible to confirm that the reprogrammed implementation plan is realistic in the remaining project period. Until more sustained progress can be demonstrated in the next three months, the Bank team will postpone consideration of additional activities. However, it encourages the Government to reprogram planned activities as discussed with the mission. In the meantime, the Government needs to suitable modify its MTR report based on more information on implementation on the ground and make this available prior to the next mission in late October, 1999 when it is expected to complete the MTR.

8. Following is a summary of project achievements, lessons and future actions which emerged from the MTR workshop.

I. Summary of Project Achievements at Mid-term

Delivery of Inputs

- Physical inputs (civil works and goods) are being delivered (after some initial delay), and is resulting in better equipped, cleaner, and safer hospitals, with ambulance services and greater availability of drugs
- Clinical and management training has been done to improve skills, knowledge base, attitudes and behaviors of providers
- Health messages have been displayed and disseminated
- Vacancies and mismatches in health personnel have been reduced

Systems Development

- Hospital information is being collected and used for decision-making
- Procedures to improve public accountability are being used
- Mechanisms to coordinate national and state programs have been initiated
- Decentralization of health management has been strengthened in West Bengal
- More transparent and fair procedures for procurement are being used and more effective quality assurance procedures introduced
- Contracting procedures have been introduced and are working well
- Cost-recovery and retention has been introduced
- Flow of funds mechanisms have been developed within state systems to handle a large flow of funds
- Waste management systems have been introduced and are being used
- Equipment management and maintenance systems have become functional
- Referral systems have been piloted successfully
- Disease surveillance and control systems are being refined and used
- Quality assurance procedures have been introduced

Measurable Outcomes

- Small increases in outpatient and inpatient visits are being seen
- Hospital efficiency is changing through increases in bed occupancy and greater use of diagnostic testing
- Increased outreach services to disadvantaged groups
- Baseline levels of patient satisfaction are being measured

Qualitative Results

- Raised awareness of health among politicians and key decision-makers
- Improving morale among public health sector staff
- Public health sector is now better able to consider issues across programs and levels of care (e.g. disease surveillance, referral, IEC)
- Government is adapting new ways of doing business introduced by project, and open to more
- Public health sector is now looking beyond public sector to new partnerships with NGO and private sector
- Expectations of the public and providers are rising
- Raised awareness of problems of vulnerable groups

II. Summary of Lessons Learned and Future Actions

Issue	Lessons Learned	Future Actions
Policy • Increased allocation to health, especially to primary and secondary levels and non-wage recurrent items • Systems for policy analysis and strategic planning • Role of government in utilizing public-private partnerships	• Changing allocations has been more difficult than anticipated: overall allocation to health has not changed much, pressure for the wage bill has increased, but there have been marginal increases to selected non-wage items • Investment in physical improvements is powerful motivator in promoting systemic reforms • Attitude and behavior change of policy-makers and key staff within state health systems is vital step toward reconsidering role of government and private sector	• Prepare options papers on how to improve State health allocations within context of overall State priorities and fiscal constraints • Integrate Strategic Planning Cell into state health policy and planning bodies • Shift from rigid norms to need and performance based planning • Explore options to improve use of private financing and private provision, including new provider payment mechanisms and organizational models • Strengthen monitoring of effects of cost-recovery and exemptions
Management & Institutional Arrangements • Appropriate project management arrangements • Adequate flow of funds • Strengthening state health management systems • Management information systems to support decision-making • Management of physical assets to ensure quality, performance and safety	• Multidisciplinary project team essential. Up-front training in Bank procedures is needed. • Establishment of autonomous bodies are not sufficient in easing flow of funds – financial commitment of state is still critical • District Health Committees can be effective provided they are engaged early and have substantial decision-making power, including financial authority and control over postings • Managing contracts is an efficient mechanism where	• Add skills on key software areas (e.g. economics, information systems, marketing) to project teams • Integrate PMC activities and systems (e.g. information systems, financial management) into mainstream of health systems • Integrate planning and supervision of SHSII project with other national programs • Extend contracting to clinical services • Increased use of 3rd party evaluation of outputs and outcomes and applied

Issue	Lessons Learned	Future Actions
	tested so far (non-clinical hospital services, waste management; minor building maintenance including toilets, waste supply etc) • "Centers of excellence" created by project may be unsustainable • Concurrent evaluation and feedback in areas of patient satisfaction and hospital performance enables managers to take prompt corrective action • Quality assurance requires appropriate local standards to be meaningful • Economic benefits of asset care demonstrated by success of one-time repair programs • Technical inspection and testing of products essential to ensure quality and safety	research • Develop local standards for quality assurance • Expand standardized guidelines and operational procedures (e.g. model contracts, hospital commissioning guidelines) • Undertake study of cost-effectiveness of various maintenance and repair modalities currently being tried in different states and develop criteria for optimizing arrangements • Develop data base on equipment for secondary care including, technical specifications, unit costs, maintenance guidelines, life-cycle costs for O&M.

Issue	Lessons Learned	Future Actions
Health Service Delivery • Functional referral system • Disease surveillance • Hospital waste • Health communications • Training • Engaging NGOs	• Referral protocols need to be responsive to changes in services in public and private sectors; provision of all project inputs is not a prerequisite to initiate action • Though surveillance systems are established, rapid response still needs to be strengthened • Actions on improving hospital cleanliness and waste management requires continuing attention but can yield positive results • IEC strategy so far limited only to client and provider information, its effects on behavior change is not yet known • The effectiveness of training needs more rigorous monitoring • The limited partnerships with NGOs has been positive, but dependant on good screening of NGO and medium-term commitment	• Expand referral systems throughout state • Refine surveillance system design around control actions, integrate with epidemics divisions of DOH, and address non-communicable diseases • Implement long-term waste management strategies and continue training & promotion • Refocus IEC on behavior change and monitoring of change; integrate IEC strategies in state across national and state programs • Critically evaluate training by linking training to clinical and managerial outcomes • Increase involvement with NGOs

Dr. Rao Gov-2

INDIA

STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
KARNATAKA

MID-TERM REVIEW

November 1999

AIDE-MEMOIRE

1. An International Development Association team consisting of Messrs./Mmes. T Nawaz (Team Leader), D. Peters, S. Chowdhury, P. Kudesia, G.N.V. Ramana, S. Rao-Seshadri, M. Voss, P. Kakkar, D. Porter, C. Giles, R. Ahner, V. Rewal, S. Chakravarty, C. Giles and Nina Anand conducted a mission between October 27 and November 23, 1999 to complete the mid-term review (MTR) of the Second State Health Systems Project (Cr. 2833–IN) that was initiated in June, 1999. Part of the mission visited field sites in Karnataka, and the mission met with Mr. B. K. Bhattacharya, Chief Secretary, Government of Karnataka; Mr. A. Sengupta, Health Secretary, Government of Karnataka; Mr. Naik, Commissioner, Health and Family Welfare; Dr. S. Subramanya, Project Administrator, Karnataka Health Systems Development Project (KHSDP); and senior staff of KHSDP. The mission wishes to thank the officials for their cooperation and hospitality.

2. The purpose of the mid-term review was to take stock of the project by assessing the (a) project objectives; (b) project design (content and institutional arrangements); (c) implementation progress; and (d) allocation and disbursement of funds; and (e) credit and project agreements; and restructuring these as appropriate. Project implementation progress is recorded in the Mid term Review Report prepared by the KHSDP, and the subsequent Progress Note on Implementation. The aide-memoire summarizes the main findings and recommendations of the mission.

3. Project implementation progress is recorded in various documents prepared for the MTR by KHSDP including: Mid-Term Review Report; Health Sector Development Policy Program in Karnataka; Status of Civil Works; Status Report on Procurement; Health Management Information System; Training Overview; Report on the Referral System; Report on Disease Surveillance; Report on Medical Audit (Quality Audit); Status of Financial Management System; Analysis of Disbursement and New Proposals; Note on User Charges; Report on Private-Public Mix; and Report on Access to Women's Health.

4. Background. The State Health System Development Project II, assisted with an IDA Credit of SDR 235.5 million, includes the states of Karnataka, Punjab and West Bengal. In Karnataka, the project aims to assist the government to: (i) improve efficiency in the allocation and use of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health services at the first referral level and selective coverage at the primary level to

better serve the neediest sections of society. The project is an investment loan addressing policy reform in the areas of resource allocation for the health sector, capacity development for sector issues in the areas of management strengthening, enhanced participation of the private and voluntary sectors in the delivery of health services, and implementation of user charges for those who can afford to pay. Project investments include: (i) institutional strengthening for policy development and implementation capacity; (ii) improving service quality, access and effectiveness at the first referral level; and (iii) improving access to primary health care in remote and underdeveloped areas.

5. The project was approved on March 21, 1996, signed on April 18, 1996 and became effective on June 27, 1996. It is expected to close on March 31, 2002. The good work done for project preparation translated immediately and without delay in most project activities. Early on in project implementation a new Health Secretary and Project Administrator took over. The management transition was smooth and the initial steps that were taken in hiring management consultants to assist the project team provided good impetus in civil works, procurement of goods and services, and financial management. The continuity of Project Administrator and the team has been critical to the success of project implementation to date. In addition, the establishment of a flow of funds mechanism through the letter of credit system has facilitated speedy project implementation. The commitment of the Government to this project has so far been exemplary. The support provided by the Chief Secretary in his present capacity, as well as in his previous position as Principal Secretary cum Finance Commissioner during negotiations, has been a major factor in the implementation success to date. The early mobilization for key project activities could serve as a model for other states and projects in the Health, Nutrition and Population sector.

6. Summary. The mission concludes that progress toward achievement of the project development goals is satisfactory and the implementation of the project in Karnataka is highly satisfactory. Implementation of agreed health sector development policy measures is on track. Management arrangements and the mechanism for the flow of funds are working well. The civil works component of the project is on schedule, and disbursements are close to the target estimated in the SAR. To date, work has commenced on the 175 hospitals, re-commissioning is underway in 60 hospitals. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, application of performance indicators, HMIS, and outreach programs to scheduled caste, scheduled tribe and women are proceeding well. Recruitment of additional doctors and paramedical staff and specialists have been substantially posted according to norms in the 60 re-commissioned hospitals. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. The project will now have to pay increased attention to software issues which acknowledge the importance of the role of clinicians and paramedics in improving service quality, patient outcomes and satisfaction, referral, quality assurance and IEC activities.

7. As of November 1999, savings in project costs are approximately Rs.60 crores (equivalent to US$14 million) due to exchange rate depreciation and cost conscious management practices. However, there have been savings in goods and services and in the category of incremental staff salaries. To accommodate these, reallocations of the proceeds of the Credit to

the extent of SDR 4.71 million from goods and services to civil works and SDR 2.26 million from incremental staff salaries, and incremental operations and maintenance costs to civil works was made at the request of the Government on May 17, 1999. In addition, the Bank team had earlier agreed to the use of US$9 million equivalent from the unallocated category for the increased cost of civil works. This accounts for almost all the pro-rated unallocated Credit for Karnataka. The mission also reviewed a number of proposed activities for the Rs.60 crores savings. The project team has prioritized these proposals since the last mission in May 1999 and ensured that they are in accordance with the overall objectives of the project. These have been reviewed by the Bank team and a number of additional activities have been agreed to in principle which are noted in this aide-memoire. Detailed implementation plans will now be prepared on each additional activity and submitted to the Bank team for review prior to the next mission.

8. **Project Development Objectives (DO).** Progress toward achievement of the development objectives of the project is satisfactory. DO1: Policy Indicators. Budgetary allocation. The budgetary allocations for the health sector were enhanced from Rs.705 crores in FY96-97 to Rs. 903 crores in FY98-99. In constant terms the increase is more modest but there has been a slight increase in real resources for the health sector. Within the health sector the allocations for primary and secondary levels increased from Rs. 450 crores to Rs. 690 crores between FY96-97 and FY98-99. In terms of the share of resources, allocations to the primary and secondary levels have also increased from 85.8% to 87.3% during this period. Resources for non-salary recurrent costs, particularly for drugs and supplies, have been substantially increased since the beginning of the project. Cost Recovery. The Government Order (GO) of 1995 establishing District Health Committees (DHCs) gave them the responsibility, among other things, of collecting user charges for a range of services, including fees for room rents, laboratory and diagnostic services, selected surgery and medicines. User charges are being collected at all district hospitals. All revenues collected are retained by the DHCs and deployed among hospitals in the district for non-salary recurrent expenditures To date, about Rs. 1.6 crores has been collected and activities such as ambulance maintenance, repair of water and sanitary connections, purchase of supplies have been financed. Those below the poverty line, established through the JRY program, and entitled to a Green Card, are exempt from paying user charges. Contracting out. Contracting out of non-clinical services has been established in 16 hospitals and clearance has been obtained for contracting out non clinical services in an additional 28 hospitals. Due to the acute shortage of anesthetists in government hospitals, facilities for contracting the services of anesthetists have been created. Similarly, permission has been given to MOs to contract the services of LMOs for conducting health check up camps for women. New opportunities for contracting out of clinical services are being explored through the participation of NGOs. Overall, the project has made important impacts on the policies of the government in the health sector beyond the first referral level – in the areas of better management practices, drug procurement policy, performance monitoring, service norms at the primary and tertiary levels and the surveillance of communicable diseases.

9. DO2: Access and Effectiveness Indicators. There has been a significant improvement in the following areas: increased availability of drugs and supplies at the facility level; meeting equipment norms and timely repair of equipment in upgraded facilities; meeting staffing norms and enhancement of the clinical skills of doctors, nurses and paramedics; increased referrals to higher level institutions; and increased access to basic health services for SC/ST and women.

Quality assurance mechanisms at upgraded facilities are being established. These improvements are leading to increased credibility of services provided and are beginning to show greater patient satisfaction.

10. DO3: Activity Indicators. The monitoring and evaluation (M&E) mechanism that has been put in place under the project is very good and is being used in managerial decision-making. As part of the M&E mechanism, hospital activity indicators such as out-patient attendance, in-patient admissions and discharges; bed turnover rate, bed occupancy, average length of stay, and utilization of diagnostics and equipment are being collected. This information is being used to assess hospital performance and is being fed back to the respective institutions for follow-up action. Utilization rates in the upgraded facilities are now showing substantial increases as are patient satisfaction and outcomes .

11. *Recommendations*. As part of its health sector development program, the Government of Karnataka should strengthen integration of the clinical and management aspects of primary, secondary and tertiary levels of health care, including partnership between the public and private sectors. This would also mean closer coordination between the State Health and Population/RCH programs. To facilitate the process and to provide the government with an overall perspective of health sector planning, monitoring and reporting mechanisms for health sector policy need to be strengthened. Further, better reporting on the scope, practices and opportunities for collaboration with the private sector needs to be incorporated in the planning process. In addition, the policy on user charges at upgraded public facilities needs to be reviewed, including opportunities for enhancement of selected user fees as there is substantial scope for increasing revenue from user charges.

12. **Management.** The project was designed to operate within the organizational framework of the Department of Health and Family Welfare (DOHFW), as distinct from operating through a corporate entity as in AP and Punjab. The Government of Karnataka accepted that there might be limitations in implementing a project such as this through a government line department in the areas of contemporary management practices such as organizational structure, fund flows and recruitment. Nonetheless it believed that there would be larger benefits by way of linking the project to the overall health sector.

- Organizational structure. The organizational structure consists of a Project Governing Board headed by the Chief Secretary with high level representation from all relevant departments of the government. The PGB is fully empowered to make major policy decisions and develop broad policy outlines for the project, approve the annual budget, authorize major project revisions if necessary, ratify decisions made by the Steering Committee, formulate rules and regulations and undertake an annual review of project activities and monitoring. The PGB has delegated adequate powers to the Steering Committee to carry out its functions as the nodal body for project implementation. The Secretary DOHFW is the Chairman of the Steering Committee which supervises and monitors project implementation, undertakes project activities and facilitates project management. The Project Administrator, a Secretary who heads the Project Management Cell, is responsible for the implementation of day-to-day project activities. This three-tier system has made it possible for prompt decision-making and for implementing the project

expeditiously. Further, this structure has enabled the PMC to be closely integrated with the technical wing of the DOHFW.

- Flow of funds. The mechanism established under the project to facilitate the flow of funds is exemplary. It has set a precedent for other states implementing a health sector project of this type, enabling implementation of large number of small project activities. Cumbersome processes requiring repeated reference to Finance and other government departments for obtaining clearances have been shortened while retaining accountability through the establishment of a letter of credit (LOC) system.

- Recruitment. Recruitment continues to be undertaken through the Public Services Commission with DOHFW playing a key role. This system makes recruitment protracted, thereby adversely affecting the project implementation schedule. In order to deal with this issue, the government has proactively made a one-time exception in the recruitment of doctors and paramedics. This means that while the needs of this time-bound project have been met, the institutional process for recruitment remains unchanged.

13. The MTR concludes that: i) in the area of organizational flexibility, while progress has been slow, systems developed under the project have greater potential of replicability to the overall health system; ii) in the area of financial flows, it has been possible to achieve substantial improvement over the existing practices in the rest of the health sector; iii) in the area of recruitment, progress has been made not so much because of any inherent advantage of working within government line department, but as a result of exceptions provided to the project.

14. *Recommendations*. The MTR recommends that, in view of the progress achieved to date and to move forward from hereon increased attention be devoted to the software components of the project, including IEC, NGO participation, training and referral, quality assurance, referral and disease surveillance. The recommendation of the previous mission that project management formalize procedures for recommissioning of hospitals has been drafted and a manual has been developed and distributed to all hospitals, laying out a detailed plan for accomplishing this. This will be reviewed by the Bank team and continually updated by the project team.

15. Workforce Issues. With regard to the earlier recommendation on addressing the mismatch in the skill-mix at the 40 commissioned hospitals, an assessment has now been made and a report has been prepared. The skill mix issue at 60 commissioned hospitals has been substantially addressed. All recruitment formalities have been completed with respect to the recruitment of 573 Assistant Surgeons and 115 Dental Surgeons to address the skill mismatch. In addition, 20 Entomologists and 12 Graduate Pharmacists have been recruited. A benchmark of March 31, 2000 was agreed on to continue to address mismatch in all specialists posts according to norms in hospitals being commissioned. The draft rules for the recruitment of Biomedical Engineers and Microbiologists have been finalized and submitted to the government for further processing, and will be published by March 31, 2000.

16. *Recommendation*. The MTR recommends that project management continues to address skill-mix according to agreed norms as hospitals are re-commissioned.

17. **Strategic Planning Cell (SPC)**. The SPC was set up to address strategic planning and management issues in the health sector in Karnataka and is currently headed by an Additional Director (Strategic Planning). It reports directly to the Secretary, Health and Family Welfare. The post of Sociologist has been filled and other supporting staff have been provided. The post of Economist remains vacant, and efforts are underway to identify a suitable candidate. A number of activities have been undertaken by the SPC, including: publication of a quarterly newsletter; development of a databank; evaluation of clinical training and the overall effectiveness of the training program; a study on microbial contamination; a study on the waste management system in hospitals; an evaluation of the Yellow Card Scheme; a pilot study on the networking of private and public health care providers; a manual for commissioning of completed hospitals; and updating the health policy matrix. The outputs of the SPC have been noted in policy discussions and programming in the health sector. For example, the recommendations of the study on microbial contamination have lead to the government issuing Executive Orders and passing a GO for the establishment of the Nosocomial Infection Control Program. Contracting out of non-clinical services in 40 commissioned hospitals is to be completed by March 31, 2000. Other activities to be completed by March 31, 2000 include initiation of a study on Options and Cost Effectiveness of final disposal waste, and a Private-Public Mix Issues and Options Paper. Benchmarks to be met by June 30, 2000 include a draft report on manpower planning in the DOHFW.

18. *Recommendation*. The MTR concludes that the functions originally envisaged for the SPC continue to be relevant and, with increased focus of planning across HNP programs, the SPC now has an even more important role to play in policy development and planning in this sector. The project should put in place key staff, either on a regular or contractual basis, in order to make the SPC fully functional.

19. **Civil Works Component**. The civil works program has proceeded at an exemplary pace: work has commenced on 175 hospitals out of a total of 201; and 60 hospitals are in the process of being commissioned. Apart from this, KHSDP has upgraded 13 blood banks and proposes to cover 9 more. 21 District Surveillance Units are under construction and equipment maintenance workshops are being provided in all districts. In order to minimize cost escalation in civil works, a decision was taken early on by the Project Governing Board to initiate civil works in all hospitals simultaneously rather than in four phases planned earlier. An Engineering Wing was established with an Engineer-in-Chief, two Superintending Engineers and 6 Divisions. In addition, 46 architects were empanelled to expedite the preparation of designs and drawings. Owing to the large number of civil works already grounded, independent agencies were engaged for undertaking quality audit of the civil works. These auditors also undertook proof checking of structural designs and soil investigation reports. The feedback thus far has been that the PMC has done a commendable job in the area of civil works. The agreed benchmark of March 31, 2000 includes commencing work on remaining 14 hospitals, and completion of 90 hospitals and initiation of the process of commissioning all completed hospitals.

20. *Recommendations*. The MTR concludes that the independent review and evaluation for ensuring the quality of civil works has been very useful and such evaluation should be continued on a regular basis.

21. **Procurement of Goods (equipment, furniture, vehicles, drugs, medical laboratory and other supplies, MIS and IEC materials).** The procurement activities planned for 1998-99 have been completed successfully. Procurement activities planned for 1999-2000 are underway. In respect of stand-by generators required at number of project facilities, the procurement of these has been postponed until appropriate accommodation for these are completed as part of the civil works program. Good quality control procedures have been established for acceptance testing, installation and commissioning. Project management has completed planning of procurement for the third and fourth phases of the project and the benchmark for October 31, 1999 to complete the activities planned for May-October 1999 has been met.

22. *Recommendations:* KHSDP is now in a good position to develop a computer-based inventory system for the management of equipment, plant and similar assets in the facilities for which it is responsible. This database should include comprehensive information on the type of equipment/generic description, manufacturer, model, serial number, dates purchased and installed/commissioned, service agent, service frequency, accessories and parts availability, and a comprehensive service record for major items (including operating and service costs).

23. **Maintenance and Repairs.** In-house service teams have now been established in all districts of the State and are providing an accessible repair and maintenance service for a wide range of equipment. The staff have also assisted in the program of installing and commissioning new equipment. The KHSDP maintenance team has now been put in-charge of maintaining the cold-chain and walk-in coolers of the DOHFW. Experience with maintenance of X-ray equipment throughout the state by a third-party service agency has been very positive; X-ray sets valued at around Rs. 4 crore have been repaired and regularly serviced for a cost of around Rs. 3.3 lakh a year, i.e. (<1% of assets value). This represents excellent value for money. The benchmarks for October 31,1999 have been accomplished, including commencing construction of equipment maintenance workshop buildings in the remaining 10 districts and preparing a comprehensive report on the activities of the in-house district equipment maintenance teams including the cost effectiveness of the services they provide. Agreed benchmarks for March 31, 2000 include completion of construction of equipment maintenance workshops in all 21 districts, and computerize the status of equipment maintenance in four districts, one in each revenue division.

24. *Recommendation*. The maintenance arrangement should be reviewed in light of the results of the cost-effectiveness study and the experience of other states. The benchmark for March 2000 is to computerize that status of equipment maintenance in 4 districts, one in each revenue division.

25. Training. Progress of the training component under the project is satisfactory. (a) So far 1,135 doctors have received basic clinical training in different specialties as part of this program. A Training of Trainers (TOT) was arranged at JIPMER, Pondicherry, as a result of which 40 master trainers are now available for conducting training programs. The district level training

program for CHC/taluka level doctors was conducted in medicine, surgery, OBG, pediatrics and anesthesia and 354 doctors were trained: (b) Nurses Training: There are about 1,550 Staff Nurses working in CHC, taluka and district level hospitals. An additional 1,100 nurses have been recruited by the KHSDP and these require training. A training needs assessment has been conducted for nurses, and project authorities have adopted the training manual and curriculum developed by the AP First Referral Health System Project. 1,762 nurses have so far been trained in general nursing. Specialist training in the areas of pediatrics, ICCU, ophthalmic nursing, psychiatric and neuro nursing has been imparted to 365 nurses. (c) Management training has been conducted for Additional Medical Officers (AMOs), Nursing Superintendents, second senior MOs and the male health worker as a team. This training is complete in respect of 22 hospitals. The objectives of this program have been to acquaint the participants with HMIS for decision-making and to enhance their administrative and managerial skills. Certain issues such as medico-legal aspects have been included in the curriculum. Training has also been conducted at Bangalore in several super-specialties. The benchmarks agreed for March 31, 2000 include: (i) conducting an in-house evaluation of lab. Technician training; (ii) preparation of TOR for the evaluation of administrators training and identification of a suitable agency for conducting the training; and (iii) preparation of a draft report on the external evaluation of clinical medical officer's training.

26. *Recommendations*. The doctors' training has been evaluated by the Additional Director (SPC) by sending a questionnaire to the trainees. A more detailed evaluation of the impact of training on the performance of the trainees is required. Training during the remaining project period should focus on meeting the overall objectives of the project, with emphasis on improved health care outcomes at the facility level. Different options for continuing education at the facility level should be examined, and there should now be greater focus on hands-on training.

27. Referral. The referral system under the project was piloted in Udipi District and has now been extended to Chitradurga and Tumkur districts. The experience so far has been that awareness has been created regarding the referral system amongst the medical personnel and the public, and IEC activities in this regard have been intensified. Referral cards are being used and feedback information is provided in most cases. The project management has felt that a referral system cannot be fully functional until upgraded facilities have been equipped and staffed according to norms, and that it would take at least one more year for the referral system to be extended across the state. However, in an attempt to speed up the process of extending the referral system, it has been initiated in individual hospitals without waiting for all districts in the hospital to be upgraded.

28. *Recommendations*. The referral system needs to be expanded throughout the state and this need not be deferred till such time that all facilities have been upgraded. There are a number of clinical aspects where the referral system can be made more functional throughout the state without requiring completion of the civil works program. To support the expansion of the referral system, a planned IEC program for service providers and the community is recommended. It was agreed that the project would increase referral linkages with RCH, IPP IX and other health programs.

29. Health Care Waste Management. The KHSDP is currently following a three-phased approach to the safe disposal of hospital waste in secondary hospitals. This includes a short-term approach focusing on the immediate reduction in hazards from clinical waste with the introduction of low-cost measures such as simple segregation to remove sharps and infected waste, and secure on-site storage; a medium-term approach involving scale up measures such as fuller segregation and limited on-site treatment such as needle crushers, formation of interdisciplinary working groups to implement agreed measures, and appraisal of options and cost-benefit analysis; and a long-term approach focusing on completion of options appraisal, development of appropriate management systems and implementation of health care waste management plans and full training programs. The passage of the Biomedical Waste (Management and Handling) Rules (July 1998) by the Government of India and rulings by the Supreme Court have imposed a legal requirement on every health care facility more than 50 beds in the country to develop and implement a health care waste management strategy. The short- and medium-term waste management strategy is now being implemented in the 60 completed hospitals. Training workshops have been conducted for the AMOs and nurses from 26 hospitals on the broad principles of waste management, legal issues, and waste management strategies, and IEC material has been developed and disseminated. Several lessons have been learned, which the project authorities are attempting to address: the need for retraining and follow-up of hospital staff with regard to the importance of source segregation of waste and the significance of color coding of bags; occupational hazard to waste handlers; and inadequate information about the use of deep burial pits and land fills. Benchmarks agreed for October 1999 have been completed, including: extending the short- and medium-term waste management strategy to 60 commissioned hospitals; creating a mechanism for verifying waste management practices; expanding IEC activities to spread awareness and behavior change; and formulating policies for waste reduction and re-cycling strategies, which is shortly to be issued as an Executive Order. Benchmarks agreed for March 31, 2000 include: (i) finalize study on medical waste; (ii) extend short-term and medium-term waste management to 90 hospitals; and (iii) complete status report on how waste management system is functioning.

30. *Recommendations*. The mission supports the approach taken with regard to the waste management plan. The challenge now is to sustain the level of achievement reached to date and to progress further on key issues in the comprehensive management of the waste problem. The mission recommends that the short-term and medium-term strategies be fully implemented, and that the government continues to work towards a longer-term strategy on the basis of the study that is currently under preparation. It is noted, however, that the Bank is unwilling to support the incineration of waste under the project until the longer-term study on option appraisal is completed and the Bank itself has developed a policy on incineration. The project can, in the meantime, finance alternative technologies on a pilot basis, including microwave treatment, autoclaving and other non-incineration system for the final disposal of hazardous waste.

31. Strategy for Increasing Access for Scheduled Castes (SC), Scheduled Tribes (ST) and Women. Satisfactory progress has been made with respect to the implementation of programs aimed at increasing access for SC/ST and women. Karnataka has a large SC/ST population accounting for about 21% of the total population, and a survey conducted in 1995 indicated that they generally suffer higher levels of mortality and morbidity. As a result, the government proposed the Yellow Card Scheme involving annual health check-ups for SCs and

STs. The KHSDP began implementation of the scheme on a pilot basis in November 1996, and since then the scheme has been extended to the whole state and become part of the on-going activities of the DOHFW. To date, about 2.0 million people have been screened through this scheme, of whom about 1.4 million have been treated at the camps, and about 2.6% of those treated have been referred to hospitals for treatment. The logistics of conducting the camps, including the provision of adequate staff, medicines and supplies have been streamlined, and the scheme is being implemented in an excellent manner. Reviews of on-going rounds of check-ups have been conducted, and corrective measures have been taken based on feedback. In addition, the KHSDP funded the implementation of a Women's Health Check-up program in 6 taluks in Mysore district through the BCCHI Trust, an NGO active in that area. This scheme has undertaken to promote better health practices among women, conduct screening and management of RTIs, STDs, cervical and breast cancer, conduct training programs for health functionaries, and conduct IEC campaigns and implementation has been highly satisfactory. Since then, GOI has initiated a separate scheme for women's health which is being implemented through six NGOs and managed by the KHSDP. In view of this, KHSDP has not extended the women's health check up program to one more district as had been agreed.

32. *Recommendations*. The mission recommends that: i) the Yellow-Card scheme be continued to be implemented throughout the entire state; ii) the IEC strategy for the project be linked to the tribal strategy to increase awareness among tribals of service availability; iii) upgraded facilities in tribal areas be staffed in accordance with the norms for services, if necessary through contractual arrangements; and (iv) a TOR be developed for an external evaluation of the effectiveness of the Yellow Card scheme, and a suitable agency be identified by March 31, 2000 for conducting such an evaluation.

33. **Information, Education and Communication (IEC).** Facility-level IEC focusing on referral and waste management have been undertaken so far. IEC activities need to be broadened across the health sector and this project provides the instrument to integrate IEC strategies implemented under several programs in the health and family welfare sector. Project authorities have shown, for some time, recognition of the need for a state-wide strategy and have sought professional assistance. A workshop was held in June with NGOs and the private sector and the need for a more comprehensive approach was articulated. A more comprehensive strategy will now be formulated, including an implementation plan for the remainder of the project.

34. *Recommendations*. The MTR recommends that IEC activities play a vital strategic role for the State's health system. The project would contract a professional agency with the purpose of developing and implementing a strategy for the remainder of the project. This strategy would include community oriented IEC, such as the promotion of FRUs to disadvantaged groups, as well as provider oriented communication, such as the promotion of equipment care and maintenance. Given the state of re-commissioning of the facilities under the project, the need for renewed emphasis on IEC activities is recommended.

35. **Management Information System (MIS) and Performance Indicators.** The management information system developed for the project is good and key performance indicators are being used in decision making. As part of this, hospital activity data such as out-patient attendance, in-patient admissions and discharges, bed turnover rate, average bed

occupancy, average length of stay and utilization of diagnostic services and equipment are being routinely collected and compared with data from previous years. This information is being used to assess hospital performance and is being fed back to the respective institutions for follow-up actions in about 50 hospitals so far. Initial indications are that utilization rates in the upgraded facilities have increased. It is envisaged that all district health and family welfare facilities and district surveillance units will be computerized by the end of FY 2000. A benchmark of March 31, 2000 was agreed on to institute an independent verification of the MIS system in place.

36. *Recommendations*. The mission notes that the attention now being given to hospital performance and evaluation of patient satisfaction is the correct approach. This needs to be extended to all facilities under the project, and routine independent evaluations of patient satisfaction and hospital performance need to be incorporated into the MIS system. At the same time, the PMC needs to continue its efforts to improve the accuracy of the statistical information from the hospitals. This would involve additional training for the medical records staff.

37. Quality Assurance. There have been several workshops on this aspect of the project along with the other states implementing state health projects with support provided by the Bank through AIIMS and Australian specialists in quality assurance. Karnataka has adopted a broad-based approach to quality assurance with focus on hospital utilization, performance indicators and patient satisfaction. Their view is that it will be more useful at this stage to concentrate on these broad parameters rather than clinical and outcome indicators until most hospitals are commissioned. A Quality Audit has been undertaken of 14 hospitals and the report presented to the mission. It was agreed that a few critical outcome indicators be developed by March 31, 2000, to monitor quality in all project hospitals.

38. *Recommendations*. The mission agrees that the focus on quality assurance at this time needs to be on broad-based hospital indicators and patient satisfaction. However, in the longer run, with the commissioning of all project hospitals, it will be important to incorporate clinical indicators as part of the quality assurance system. It was further agreed that a few critical outcome indicators would be chosen from within the larger protocol to monitor all project hospitals. The mission also notes that quality assurance needs to be viewed beyond the project hospitals and secondary level care, and that a state level policy on quality assurance will be essential to sustain improvements in health care delivery generally. It will be important, therefore, that the project is used as an instrument to promote and facilitate the implementation of a state-wide policy on quality assurance. This is beyond the scope of the original project, but given the larger benefits that are being realized out of this project, it is well worth expanding the scope to facilitate this broader development.

39. Project Costs and Disbursements. Costs. At appraisal, total project costs including contingencies were estimated at Rs.5,455 million (US$ 136.4 million equivalent). The mission concludes that savings of about Rs. 60 million or US$14 million equivalent have result mainly from the goods and services where greater procurement through ICB resulted in lower than anticipated costs and from the incremental staff category due to delayed hiring of staff during the early stage of the project. There have been some increases in the costs of civil works, but far lower than in other states. These have been accommodated by the reallocation of resources from

goods and services and unallocated category at the request of GOK. Expenditures and Disbursement. The expenditures incurred by the project estimated to date are about Rs. 2,300 million (actual at October 31, 1999). Disbursement up to October 31, 1999 is close to target set at appraisal.

40. **Additional proposals.** In addition to the minor adjustments agreed during the June 1999 mission, the mission agreed in principle to the government's request to fund from existing resources a number of additional activities: These include: Phase II of the KfW schemes in the Gulbarga division which KfW will be unable to fund; strengthening of the district referral units in the Mysore and Bangalore districts, including improvements to the K.R hospital in Mysore and Victoria, Bowring and KC General Hospital in Bangalore; provision of some additional equipment to the district hospitals under the project such as C-arm unit, ENT operating microscope, laproscopic operating microscope, physiotherapy facilities and anesthesia equipment; upgradation of hospitals at Gadag, Chamarajanagar, Haveri, Koppal and Udupi as district hospitals based on utilization and limited improvements to the existing SIHFW building. All the additions should not exceed Rs. 60 crores from project savings and an additional Rs15 crores from the unalloacted amount of the project. The Government will now prepare detailed implementation plans for each of these activities for review by the Bank team prior to the next mission.

41. **Compliance with Covenants.** All covenants are in compliance in the Karnataka component of the project.

KARNATAKA HEALTH SYSTEMS DEVELOPMENT PROJECT
Benchmarks proposed to be achieved by March 31, 2000

Management	Continue and strengthen coordination mechanisms among SHS II, IPP VII, IPP IX, KfW and RCH	Continuous
	Continue to address mismatch in all specialists posts according to norms in hospitals being commissioned	March 31, 2000
Recruitment	Publish C & R Rules for the recruitment of Bio-medical Engineers and Microbiologists	March 31, 2000
Strategic Planning Cell	Initiate study on Options and Cost Effectiveness of final disposal of waste	March 31, 2000
	Update action taken on Karnataka Government Health Policy Matrix	Continuous
	Prepare a draft report on man power planning, in the Department of Health & Family Welfare	June 30, 2000
	Private – Public Mix Finalize Issues and Options paper	March 31, 2000
Contracting out Non-clinical services	Contract out non-clinical services in 40 commissioned hospitals	March 31, 2000
Civil Works	Commence work on remaining 14 hospitals	March 31, 2000
	Complete 90 hospitals and initiate the process of commissioning in all completed hospitals	March 31, 2000
Surveillance	Complete District Surveillance laboratory buildings in all 19 districts.	March 31, 2000
	Provide status report on functioning of state level and district level co-ordination committees	March 31, 2000
	Undertake analysis of water contaminants	March 31, 2000
	Install the computers and initiate training on software	March 31, 2000
Training	Conduct in-house evaluation of laboratory technician training	March 31, 2000
	Develop terms of reference for the evaluation of administrative training and identify a suitable agency for conducting the evaluation	March 31, 2000
	Furnish draft report on external evaluation of clinical medical officers training	March 31, 2000

Medical Waste Management	Finalize short-term and medium-term studies on medical waste Extend waste management to 90 hospitals Complete status report on how waste management system is functioning	March 31, 2000 March 31, 2000 March 31, 2000
Equipment Procurement and Maintenance	Complete construction of equipment maintenance workshops in all 21 districts	March 31, 2000
	Computerize the status of equipment maintenance in four districts, one in each revenue division	March 31, 2000
Referral	Increase referral linkages between RCH and IPP IX and other health programs	Continuous
SC/ST/ Gender Issues	Develop terms of reference for external evaluation of yellow card scheme and identify suitable agency for conducting evaluation of health outcomes measures	March 31, 2000
IEC	Develop mechanism for coordinating IEC programs between health, family welfare and nutrition sectors	March 31, 2000
	Identify professional agency to facilitate development of IEC materials	March 31, 2000
Quality Assurance	Develop a few critical outcome indicators to monitor quality in all project hospitals	March 31, 2000
MIS	Institute an independent verification of the MIS system in place	March 31, 2000

INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
MID-TERM REVIEW : OVERVIEW
(Final Report : November 1999)

1. An International Development Association team consisting of Messrs./Mmes. T. Nawaz (Team Leader), D. Peters, S. Chowdhury, P. Kudesia, G.N.V. Ramana, M. Voss, P. Kakkar, R. Ahner, D. Porter, C. Giles, M. Chand, S. Chakravarty, V. Rewal, R. Sahni, and S. Rao-Seshadri concluded a mid-term review (MTR) of the Second State Health Systems Project (Cr. 2833–IN) between October 27 and November 20, 1999. Following visits to Karnataka, Punjab, and West Bengal, a three -day workshop was held in New Delhi, and included the participation of the project teams from the three states, four other states with State Health Systems Development Projects, officials from Nepal, and the Bank team. For Karnataka, the mission met with Mr. A. Sengupta, Principal Secretary, Health; Dr. S. Subramanya, Project Administrator and Health Secretary, Karnataka Health Systems Development Project (KHSDP); and senior staff of KHSDP. For Punjab, the mission met with Mr. P.S. Badal, Chief Minister, Mr. Chabbra, Principal Secretary, Health and Family Welfare, Mr. A. Agarwal, who became Managing Director, Punjab Health Systems Cooperation (PHSC) during the mission, Mr. S.S. Channy the previous Managing Director, and senior staff of the PHSC. In West Bengal, the mission met with Mr. Partha De, Health Minister; Mr. M. Gupta, Chief Secretary; Mr. N. K. S. Jhala, Principal Secretary Health; and Mr. T. K. Das, Project Director and ex-officio Principal Secretary, Government of West Bengal and senior staff of the project. The mission wishes to thank the officials for their cooperation.

2. This overview of the aide-memoire summarizes the main findings and recommendations of the mission. The MTR that was initiated in June, 1999, required the following issues to be resolved before completion of the MTR (see Aid Memoire, June 1999). In Karnataka, Government needed to prioritize and cost the new proposals to be taken up during the remaining project period. In Punjab, the flow of funds from the State Government to the PHSC needed to be resolved and a re-costing of the proposal activities undertaken to fit within the available budget. In West Bengal, the PMC needed to demonstrate sustained improvement in activities as reflected in increased expenditures and disbursements, and to confirm the re-programmed implementation plan is realistic and can be completed in the remaining project period. Each of these issues has been resolved to the satisfaction of the mission.

3. The MTR served to confirm that the project objectives are appropriate, and that the basic design and implementation arrangements will enable the project to achieve its development objectives. Overall implementation progress and progress towards development objectives is satisfactory across the three states. No changes in the project allocations, net of unallocated funds, are required at this time, though this may be required in the coming months, as described below.

4. **Background.** The State Health System Development Project II, assisted with an IDA Credit of SDR 235.5 million, aims to assist the Governments of West Bengal, Karnataka and Punjab to: (i) improve efficiency in the allocation and use of health resources through policy and institutional development; and (ii) improve the performance of the health care system through

improvements in the quality, effectiveness and coverage of health services at the first referral level and selective coverage at the primary level to better serve the neediest sections of society. The project is an investment loan with policy reform in the areas of resource allocation for the health sector, capacity development for sector analysis and management strengthening, enhanced participation of the private and voluntary sectors in the delivery of health services, and implementation of user charges for those who can afford to pay. Project investments include: (i) institutional strengthening for policy development and implementation capacity; (ii) improving service quality, access and effectiveness at the first referral level; and (iii) improving access to primary health care in remote and underdeveloped areas.

5. **Karnataka.** Progress towards achievement of the project development goals is satisfactory and the implementation of the project in Karnataka is highly satisfactory. Implementation of agreed health sector development policy measures is on track. Management arrangements and the mechanism for the flow of funds are working well. The civil works component of the project is on schedule, and expenditures and disbursements have achieved the targets estimated by the SAR. To date, 60 hospitals have been commissioned, and work is underway in an additional 115 hospitals. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, application of performance indicators, HMIS, and outreach programs to scheduled caste, scheduled tribe and women are proceeding well. Recruitment of additional doctors and paramedical staff is underway, and the specialists have been substantially posted according to norms in the 60 re-commissioned hospitals. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. The project will now have to pay increased attention to software issues which acknowledge the importance of the role of clinicians and paramedics in improving service quality and patient outcomes and satisfaction, referral, quality assurance, and IEC activities.

5. **Punjab.** Progress towards achievement of the project development goals and implementation progress are both marginally satisfactory. The state would be rated higher if the funds had flowed adequately to the project, and if project start-up had not been delayed due to the change in management and the continuing debate around the PHSC. The place of the PHSC was satisfactorily resolved over time, but it diverted the attention of the Managing Director and the Principal Health Secretary at the early stage of the project when their focus should have been on resolving initial implementation issues. Project implementation since then has been relatively good despite the ongoing constraints in the flow of funds. All facilities and medical equipment transferred to the PHSC have been renovated, supplies have been provided, and initial clinical and managerial training has been done, improving the ability to deliver better services. But the tight flow of funds, brought about because of difficulties in State finances, led to a virtual stoppage in project activities during the past year. In the last few months, the state has resolved to ensure that funds are passed on to PHSC, and has done so in a timely manner since then. Although 80 facilities have been grounded, there had been major cost over-runs projected for civil works based on the initial sites, that led to a re-planning of the remaining commitments. Planning and research capacities have been enhanced, so that most health sector development policy measures are progressing well. The PHSC has done well to strengthen the health management information system, introduce quality assurance processes and referral systems, and

improve the user fees systems. Nonetheless, a change in project management at this critical point will make it very difficult for the project to complete its activities in a timely fashion. As a result, the Bank will carefully monitor activities and disbursements over the next six months. It is unlikely that the pro-rata portion of the unallocated funds will be used up by Punjab in the project period. A decision will be made whether the funds could be used by another state; discussions on this were held with the DEA and the three states.

7. **West Bengal.** Progress towards achievement of the project development goals is satisfactory and the implementation of the project in West Bengal is now also satisfactory. Implementation of agreed health sector development policy is on track. The slow implementation of the project during the first two years leaves little room to deviate from current plans if the project is to be completed on time. The mission believes that increased activities and disbursements over the past nine months, and particularly in the last four months, is an encouraging indication that the project can be completed on time. It has reviewed the plans for the remaining project period and believes that they can be achieved provided the attention that has been provided to the project over the past year is sustained. Management arrangements and the mechanism for the flow of funds are working well. The civil works component of the project is now fully geared up and work is in progress at 170 facilities. Expenditures and disbursements are considerably below the targets estimated by the SAR, mainly because of the delay in the civil works component. This has, however, picked up sharply during the past four months. Procurement and quality testing of equipment, equipment maintenance, management and clinical training programs, application of performance indicators, HMIS, and outreach programs in the Sunderbans component of the project are proceeding well. Posts for 1,200 doctors were created early, and efforts have been made to recruit them. Gaps remain in the positions of anaesthetists, radiologists, physicians, and technicians, which the government is trying to fill on an urgent basis. The project has begun to establish links with the primary care network and is playing an important role in stimulating better practices in some specific areas in the management of the health sector, beyond this project. The devolution of the project to the DHCs has been effected and this is expected to bear excellent long term prospects for sustainability -- however, it has had a high cost in terms of short term implementation delays.

8. The project has disbursed nearly US$82 million in the last three and a half years, or over 25% of the loan amount. Project management in Punjab and West Bengal will need to be particularly diligent to complete the proposed activities within the project period. Disbursements will be closely monitored during the coming months, to determine whether reallocations between states for the unallocated and allocated portions of the funds will be needed.

9. Following is a summary of project achievements, lessons and future actions which emerged from the MTR workshop.

Summary of Project Achievements at Mid-term

Delivery of Inputs

- Physical inputs (civil works and goods) are being delivered (after some initial delay), and is resulting in better equipped, cleaner, and safer hospitals, with ambulance services and greater availability of drugs
- Clinical and management training has been done to improve skills, knowledge base, attitudes and behaviors of providers
- Health messages have been displayed and disseminated
- Vacancies and mismatches in health personnel have been reduced

Systems Development

- Hospital information is being collected and used for decision-making
- Procedures to improve public accountability are being used
- Cost-recovery and retention has been introduced, leading to improved management at facility level, and improved staff morale
- Mechanisms to coordinate national and state programs have been initiated
- Decentralization of health management has been strengthened in West Bengal
- More transparent and fair procedures for procurement are being used and more effective quality assurance procedures introduced
- Contracting procedures have been introduced and are working well
- Flow of funds mechanisms have been developed within state systems to handle a large flow of funds
- Waste management systems have been introduced and are being used
- Equipment management and maintenance systems have become functional
- Referral systems have been piloted successfully
- Disease surveillance and control systems are being refined and used
- Quality assurance procedures have been introduced

Measurable Outcomes

- Increases in outpatient and inpatient visits are being seen
- Hospital efficiency is changing through increases in bed occupancy and greater use of diagnostic testing
- Increased outreach services to disadvantaged groups are evident
- Patient satisfaction levels are being measured

Qualitative Results

- Raised awareness of health among politicians and key decision-makers
- Improved morale among public health sector staff
- Public health sector is now better able to consider issues across programs and levels of care (e.g. disease surveillance, referral, IEC)
- Government is adapting new ways of doing business introduced by project, and open to newer initiatives in the health sector
- Public health sector is now looking beyond public sector to new partnerships with NGO and private sector
- Expectations of the public and providers are rising
- Awareness of problems of vulnerable groups has been raised

Summary of Lessons Learned and Future Actions

Issue	Lessons Learned	Future Actions
Policy • Increased allocation to health, especially to primary and secondary levels and non-wage recurrent items • Systems for policy analysis and strategic planning • Role of government in utilizing public-private partnerships	• Changing allocations has been more difficult than anticipated: overall allocation to health has increased slightly in Punjab and West Bengal, but more so in Karnataka, pressure for the wage bill has increased, but there have been small increases to selected non-wage items • Investment in physical improvements is powerful motivator in promoting systemic reforms • Attitude and behavior change of policy-makers and key staff within state health systems is vital step toward reconsidering role of government and private sector	• Prepare options papers on how to improve State health allocations within context of overall State priorities and fiscal constraints • Integrate Strategic Planning Cell into state health policy and planning bodies • Shift from rigid norms to need and performance based planning • Explore options to improve use of private financing and private provision, including new provider payment mechanisms and organizational models • Strengthen monitoring of effects of cost-recovery and exemptions
Management & Institutional Arrangements • Continuity of project management • Appropriate project management arrangements • Adequate flow of funds • Strengthening state health management systems • Management information systems to support decision-making • Management of physical assets to ensure quality, performance and safety	• Quality and continuity of project management is key to successful implementation • Multidisciplinary project team essential. Up-front training in Bank procedures is needed. • Establishment of autonomous bodies are not sufficient in easing flow of funds – financial commitment of state is still critical • District Health Committees can be effective provided they are engaged early and have substantial decision-making power, including financial authority and control over postings • Managing contracts is an efficient mechanism where tested so far (non-clinical hospital services, waste management; minor building maintenance including	• State government commitment can be seen by its support to the project through quality management and retention of key managers. • Add skills on key software areas (e.g. economics, information systems, marketing) to project teams • Integrate PMC activities and systems (e.g. information systems, financial management) into mainstream of health systems • Integrate planning and supervision of SHSII project with other national programs • Extend contracting to clinical services • Increased use of 3rd party evaluation of outputs and outcomes and applied research • Develop local standards for

Issue	Lessons Learned	Future Actions
	toilets, waste supply etc) • "Centers of excellence" created by project need to be expanded beyond the project • Concurrent evaluation and feedback in areas of patient satisfaction and hospital performance enables managers to take prompt corrective action • Quality assurance requires appropriate local standards to be meaningful • Economic benefits of asset care demonstrated by success of one-time repair programs • Technical inspection and testing of products essential to ensure quality and safety	quality assurance • Expand standardized guidelines and operational procedures (e.g. model contracts, hospital commissioning guidelines) • Undertake study of cost-effectiveness of various maintenance and repair modalities currently being tried in different states and develop criteria for optimizing arrangements • Develop data base on equipment for secondary care including, technical specifications, unit costs, maintenance guidelines, life-cycle costs for O&M.

Issue	Lessons Learned	Future Actions
Health Service Delivery • Functional referral system • Disease surveillance • Hospital waste • Health communications • Training • Engaging NGOs	• Referral protocols need to be responsive to changes in services in public and private sectors; provision of all project inputs is not a prerequisite to initiate action • Though surveillance systems are established, rapid response still needs to be strengthened • Actions on improving hospital cleanliness and waste management requires continuing attention but can yield positive results • IEC strategy so far limited only to client and provider information, its effects on behavior change is not yet known • The effectiveness of training needs more rigorous monitoring; training on specific skills used by trainees has been most successful • The limited partnerships with NGOs has been positive, but dependant on good screening of NGO and medium-term commitment	• Expand referral systems throughout state • Refine surveillance system design around control actions, integrate with epidemics divisions of DOH, and address non-communicable diseases; do comprehensive situation analysis of surveillance system in selected states • Implement long-term waste management strategies and continue training & promotion • Refocus IEC on behavior change and monitoring of change; integrate IEC strategies in state across national and state programs; hold workshop on how to contract and monitor IEC agencies • Critically evaluate training by linking training to clinical and managerial outcomes; develop on site management development and training programs • Increase involvement with NGOs

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INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II (Cr. 2833-IN)
KARNATAKA

SUPERVISION MISSION
AIDE-MEMOIRE (NOVEMBER 1997)

1. An International Development Association team consisting of Messrs./Mmes. T. Nawab (mission leader), M. Voss and V. Rewal visited Karnataka between November 15-16, 1997 to review implementation progress of the State Health Systems Development Project II (Cr. 2833-IN) in Karnataka. The mission met with Mr. B. Eswarappa, Secretary, Health and Family Welfare Department and Senior Staff of the Project Management Team and discussed the contents of the Aide-Memoire. A review meeting was earlier held with the Project Administrator, Dr. S. Subramanya in Washington in late October. The mission wishes to thank the officials for their co-operation and gracious hospitality.

2. Project implementation progress is recorded in the various documents prepared by the State Health Systems Development Project II in Karnataka. The Aide-Memoire summarizes the main findings and recommendations of the mission of Karnataka.

3. **General Overview:** The project became effective on June 27, 1996. The last supervision mission in March 1997 noted that the project had progressed well and was on the right track after a smooth transition of key personnel. Since the last mission the project has moved forward steadily and almost all the components and activities are showing very satisfactory progress. In particular, the mechanism established for timely flow of funds is exemplary and sets a best practice model for other social sector projects that are being implemented through state line agencies. Most of the benchmarks agreed with the last mission have been met. The policy program is on track; the recruitment of staff, civil works and equipment procurement are progressing very well. The civil works program is beginning to get firmly grounded and as a result the project will begin to show large expenditures in the coming months. The HMIS referral system, management and clinical training, and medical waste management activities are all progressing satisfactorily. Total expenditures to date are about Rs. 230 million including retroactive financing. Although this is somewhat below the SAR target. The expenditure levels for this fiscal year are on target. The review mission agreed on a benchmark of Rs. 750 million for project expenditure by the end of March 1998. The benchmarks for activities to be undertaken in the coming months are provided in the attachment.

4. **Health Sector Development Program:** <u>Budgetary Allocation for the Health Sector:</u> The budgetary allocations for the health sector were enhanced from a level of Rs. 469 crores in 1994-95 to Rs. 706 crores in 1996-97. The planned provision for 1997-98 continues this trend. Within the health sector, revenue expenditures for the primary and secondary health sector have also increased from Rs. 415 crores to Rs. 616 crores within the same period and their share in the total health budget has also increased. The covenant on increasing resources to the primary and secondary levels is in compliance. User Charges are being collected at 19 District hospitals. A total of Rs. 1.5 million has been collected during the last five months, mainly from paying beds and health checkup cards. Plans to enhance revenue from clinical and diagnostic services are under review and the SPC is undertaking a study of user charges. Funds collected from user charges are being deposited in DHC accounts and plowed back into the district hospitals where

the funds were collected. A Government Order has been issued on how these funds are to be used by the concerned hospitals.

5. **Management:** The Project Management Unit is now almost fully staffed and the project is being implemented well with excellent support being provided by the Project Administrator and the Health Secretary. Senior staff appear to be committed to implementing the project expeditiously and they have now been housed of flow of funds has been resolved. Cheque drawing facility has been provided to the Project Director as well as to the Executive Engineers at the Divisional level. In addition, the District Surgeon and Medical Officers at the hospital level have been given permission to draw funds through a special order. These mechanisms established under the project are proving to be exemplary in ensuring timely and adequate flow of funds and may be considered a best practice model for other social sector projects that are being implemented through state line agencies. Coordination between State Health Systems II Project and other Population and Health projects in the state such as IPP VIII, IPP IX, KfW projects is being facilitated through the appointments of a State Health Systems II Project Co-ordinator to supervise implementation of these projects as well. The co-ordination of specific activities will continue to be reviewed every mission.

6. **Recruitment:** The benchmarks established in the last mission for recruitment of staff have been mostly met. Of the six Deputy Directors who were to be recruited, 4 are already in place and the remaining 2 will be hired by December. For equipment maintenance, 40 technicians have been recruited and have received two rounds of training in Hyderabad and Bangalore. They will be available to start work this month. In addition, the positions of 362 Doctors and 242 Group 'D' personnel have been filled. It was agreed that the benchmark for March 31, 1998 would be the recruitment of 600 nurses and 110 medical technicians as well as personnel required for the Engineering Wing of the KfW operation in Gulbarga Division (1 Executive Engineer, 2 Assistant Executive Engineers, 8 Assistant Engineers, 1 Accountant, 1 Office Superintendent and 1 Biomedical Engineer).

7. **Civil Works:** The benchmarks for civil works have been exceeded. To date, design work has been awarded to architects for 178 hospitals in Phases I to IV. Preliminary designs have been completed for 117 works and these have been cleared by the Bank. Final drawings and bid documents have been completed and cleared for 68 of these works; 52 works have been submitted for tender and 43 tenders have been evaluated. Work has been started on 30 facilities. The extension of the Project Office has been completed and the Project Management staff are now well established in comfortable working offices. This is helping the morale of the staff. It was agreed that the benchmark for May 31, 1998 would be as follows: award 198 works to architects; complete 198 preliminary drawings; complete 100 final drawings and bid documents and commence work on 70 hospitals for which final drawings have been cleared.

8. **Medical Equipment, Repair and Maintenance:** The benchmark for completion of 30% of procurement of equipment packages has been met. Repairs of equipment at Bijapur and Chitradurga district hospitals have been completed. The survey of status of equipment in all districts has also been completed. A Central Equipment Maintenance and Training facility has been established in Bangalore. Training and Equipment Maintenance has been initiated and sites for Equipment Maintenance Workshop in 9 districts have been identified. To facilitate maintenance function, 21 vehicles are being procured. It was agreed that the benchmark for the completion of the repair program for all other districts would be December 31, 1997 as agreed during the last mission. In addition, it was also agreed that procurement of equipment for Phases

I and II hospitals would be completed and the 6 Equipment Maintenance Teams would be operationalised by March 31, 1998.

9. **Medical Waste Management:** A three phased approach was identified during the last supervision mission. The first phase, a short term plan based on low-cost measures to improve clinical waste management, is being put into practice at the 30 bedded Devanahalli Taluka hospital. The mission visited this facility and was impressed with the segregation and disposal measures that are being introduced at this hospital. A workshop was organised through the Karnataka Pollution Control Board and the Center for Development of Technology of Hospital Waste Management to facilitate the development of an action plan. A short term, well thought out plan which needs some fine tuning, has been prepared and will be implemented in several hospitals following the pilot at Devanahalli hospital. The following benchmarks were agreed upon: a short-term as well as a medium-term pilot plan would be implemented in Devanahalli hospital by January 31, 1998: a short and medium-term pilot plan would be extended to several Phase I hospitals by May 31, 1998: and the long term strategy would be modified using the experiences and results of Phases I and II by July 31, 1998.

10. **Strategic Planning Cell:** A number of activities have been initiated in recent months. The SPC has started a quarterly newsletter in both English and Kannada. The first edition of which was recently published. It has also undertaken a quick review of the implementation of the District Health and Referral Committees and an evaluation of the yellow card scheme in Mandya District: a study on user charges has been initiated and the SPC is following up on the actions of the Health Policy Matrix on a periodic basis. The following benchmarks were agreed upon: the SPC would organize district level workshops on the health systems project in Karnataka by December 31, 1997: complete the study on user charges by March 31, 1997: update actions taken on the Health Policy Matrix and review the implementation of the DHC's and Referral Committees on a continuing basis.

11. **Contracting Services:** All non-clinical services are being contracted out in Devanahalli Taluka hospital on a pilot basis and the project plans to expand this pilot to several other hospitals. A benchmark was agreed upon that would involve contracting all non-clinical services in 5 additional hospital by March 31, 1998.

12. **Training:** The training program is progressing well. The benchmark for preparing all modules have been met. Training of trainers for doctors and nurses have been completed and the first batch of training has been conducted. Management training for administrators, doctors and paramedics and clinical training for specialists and nurses is being conducted by the SIHFW. The first round of management training was started in October, 1997. It was agreed that an evaluation of training programs of doctors and nurses and for management training would be carried out by March 31, 1998.

13. **Referral:** Referral guidelines have been prepared in all the major disciplines. As agreed during the last mission. A referral system has been started in Chitradurga district on a pilot basis and a district referral committee has been set up. However, since the hospitals have not been upgraded in the districts, the operationalization of the referral systems remains limited. It is now proposed to consolidate the referral system to those clinical conditions that are not dependent on the upgradation of facilities. The agreed benchmark on the referral system is to consolidate the pilot in Chitradurga district.

14. **HMIS:** The HMIS plan has been finalized. The TORs for contracting the pilot scheme has been reviewed by Bank and comments are now being incorporated. Very good work has been undertaken in developing hospital performance indicators and the data is being fully computerized. These data will be continued to be updated every six months and should provide a valuable input to the project managers in monitoring effectiveness and efficiency and in providing input to the quality assurance program.

15. **SC/ST Component:** Efforts are underway to strengthen co-ordination between the gender component of the project with the RCH and FW projects. Under the state health project, NGOs and voluntary organisations have been drawn in to implement the reproductive and child health component of the project. However, more needs to be done in operationalizing the main cross-cutting issues between the state health project and the RCH and FW projects. The implementation of the pilot yellow card scheme which was started earlier has now been extended to the rest of the State. The scheme will need to be reviewed on a continuing basis.

16. **IEC:** The plan to operationalize the IEC strategy for hospitals has been finalized. Pilot activities have been initiated and are expected to be completed by May 31, 1998.

17. **Compliance with Covenants:** All Covenants are in compliance.

Issue	Benchmark	Deadline
Management	Continue and strengthen mechanisms between SHS II, IPP VIII and IPP IX, KfW and RCH	Every 6 months
Recruitment	Recruit personnel for 1 Engineering Division for managing KfW operations in Gulbarga Division: 1 Executive Engineer 2 Assistant Executive Engineers 8 Assistant Engineers 1 Accountant 1 Office Superintendent 1 Biomedical Engineer Other Staff 600 Nurses 110 Medical Technicians	March 31, 1998 March 31, 1998 May 31, 1998
Strategic Planning Cell	Organize district level workshop on Health Systems Project Update actions taken on the Karnataka Government Health Policy Matrix Complete study on user charges Continue to review the implementation of District Health Committees and Referral Committee	December 31, 1997 March 31, 1998 March 31, 1998 Continuous
Contracting Services	Contract out all non-clinical services in 5 hospitals	March 31, 1998
Civil Works	Award 198 works to architects Complete 198 preliminary designs Complete 100 final drawings and bid documents Commence work on 70 hospitals for which final drawings have been cleared	May 31, 1998 May 31, 1998 May 31, 1998 May 31, 1998
Equipment Procurement and Maintenance	Complete procurement of equipment for Phases I and II hospitals Operationalize 6 equipment maintenance teams Extend and complete repair program to all other districts	March 31, 1998 March 31, 1998 December 31, 1997
Clinical Waste Management	Within the overall plan outlined in the S.A.R. Implement short term and medium term pilot plan in one hospital Extend short and medium term pilot to Phase I hospitals Modify the existing long term strategy utilizing the experiences and results of Phases I and II	 January 31, 1998 May 31, 1998 July 31, 1998
Referral	Consolidate pilot in Chitradurga district	May 31, 1998
Training	Conduct evaluation of Clinical Training for Specialists and Nurses Conduct evaluation of Management Training for Officers and Nurses Complete second round of training of doctors Complete second round of training of nurses	March 31, 1998 March 31, 1998 May 31, 1998 May 31, 1998
HMIS/Surveillance	Continue updating performance indicators for each hospital	Every 6 months
SC/ST/Gender	Continue review of yellow card scheme	Continuous
IEC	Complete IEC pilot activities	May 31, 1998

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ANNEXURE- V

INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II (Cr. 2833-IN)
KARNATAKA

SUPERVISION MISSION

AIDE-MEMOIRE (MAY 1998)

1. An International Development Association team consisting of Messrs./Mmes. T. Nawaz (Team Leader), D. Porter, C. Giles, S. Rao-Seshadri, R. Kumar, P. Kudesia, M. Voss, J. Mittman, R. Hiraoka and S. Chakravarty visited Karnataka between May 28 and May 31, 1998 to review implementation progress of the State Health Systems Development Project II (Cr. 2833-IN) in Karnataka. The mission met with Mr. B. K. Bhattacharya, Chief Secretary; Mr. N.A. Muthanna, Additional Chief Secretary; Mr. C. Gopal Reddy, Finance Commissioner; Mr. B. Eswarappa, Health Secretary; Dr. Hema Reddy, Director, Health and Family Wellfare, Government of Karnataka; Dr. S. Subramanya, Project Administrator, Karnataka Health Systems Development Project (KHSDP); and senior staff of KHSDP. The mission wishes to thank the officials for their cooperation and gracious hospitality. A wrap-up meeting was held with Mr. Eswarappa, Dr. Subramanya and senior staff of the Project Management Unit on May 30, 1998 in Bangalore.

2. Project implementation progress is recorded in the various documents prepared by the Karnataka Health Systems Developnient Project. The aide-memoire summarizes the main findings and recommendations of the mission in Karnataka.

3. General Overview. The mission notes that since the last supervision mission in November 1997, which recorded good progress with project implementation, the pace of implementation has gained considerable momentum. Progress is very satisfactory for a project at this juncture of implementation. The significant increase in the availability of drugs and supplies at the facility level and the repair of the backlog of equipment has had a positive effect on the functioning of these institutions and added to their credibility. Almost all the benchmarks agreed with the last mission have been met despite the setback in the work program due to the national elections. Implementation of agreed health sector development policy measures has been satisfactory; in particular, the contracting out of non-clinical services at several pilot institutions has enhanced the quality of these services and has demonstrated the scope for significant expansion. The project team is almost fully staffed and the training, referral, IEC, HMIS and other software components are progressing well. The financial management and accounting system of the project has been computerized and the system is functioning well. The project is progressing well with regard to the procurement of drugs and other supplies. Progress with the civil works component of the project has been excellent during the past six months and about 80 hospital works are under construction. At the facility level, the mis-match of doctors is impeding the quality and utilization of services. With the consolidation of the civil works program, the next six months will be an important time to give increased attention to this and other software issues which acknowledge the importance of the role of the clinicians in hospital management and in improving patient outcomes.

Total expenditures incurred by the project to date are about Rs. 76 crore. Expenditures for the government FY97-98 were about Rs. 62 crore compared to the benchmark of Rs. 75 crore agreed with the last mission - a remarkable increase from the Rs. 2 crore incurred during the

previous fiscal year. Disbursements to-date are about Rs. 52 crore (US$12.2 million). Due to the failure to provide project account and SOE audit reports, the Bank has recently stopped disbursements. The Government has assured the mission that the audit certificate will be provided to the Bank prior to the departure of the mission from India around June 12. While both expenditure and disbursement figures are below their SAR estimates, there are clear signs that they will be considerably higher this fiscal year. The mission agreed on a benchmark of Rs. 40 crore for project expenditure for the first two quarters of FY98/99 (April - November 1998). Benchmarks for activities to be undertaken in the coming months are provided in Attachment 1.

4. **Health Sector Development Program.** Budgetary Allocations for the Health Sector. The budgetary allocations for the health sector were enhanced from Rs. 705 crore in FY96/97 to Rs 805 crore in FY97/98 and Rs. 903 crore in FY98/99. The share of health in the overall state budget has also increased during this period. Within the health sector, the share of resources allocated to the primary and secondary levels has also increased from 85.8% to 87.3% between FY96/97 and FY98/99, and the amounts for primary and secondary health services increased from Rs. 450 crore to Rs. 697 crore. The covenant on increasing resources to the primary ar secondary levels of the health system is in compliance. Cost Recovery. About Rs. 4.5 million has been collected so far, and there appears to be significant scope for increasing collection. A study on the willingness-to-pay user charges is being finalized, and a review of the fee structure and the targeting for exemption for people below the poverty line will follow once the scheme has become more firmly grounded. Contracting-out services for all non-clinical services at four hospitals were initiated. The results are very encouraging both, from economic and sustainability perspectives, and in terms of quality improvements of these services. It was agreed that contractual arrangements for all non-clinical services would be extended to 10 hospitals by October 31, 1998.

5. **Management.** The Project Management Unit is nearly fully staffed and is providing excellent support to the successful implementation of the project. The Project Administrator and the Health Secretary have played a key role in facilitating project implementation. Coordination between KHSDP and IPP VIII, IPP IX, KfW and RCH projects is being strengthened to varying degrees. It was agreed that a plan for developing better linkages with respect to training, referral and IEC activities would be continued. A serious problem, however, remains with the staffing of facilities to be upgraded under the project, particularly with regard to the mis-match of staff compared to agreed norms at upgraded facilities. The problem also exists with regard to medical technicians and they need to be recruited to make use of the new and repaired equipment. The mission would like to emphasize that it will now be important to ensure that adequate staff with appropriate skills is in place in the upgraded facilities so that the envisaged improvements in service delivery take place. The government informed the mission that recruitment of required staff was underway and that, as a start, it would fill all specialist, medical technician and nurses posts according to norms in 20 hospitals by October 31, 1998 and gradually for other upgraded facilities thereafter. In the meantime, the government would consider interim contractual arrangements in those institutions where there is a need to provide clinical services, and doctor and technician vacancies could not be filled.

6. **Flow of Funds.** The mission is pleased to note that the mechanism for flow of funds, put in place prior to the last mission, is working well. This mechanism facilitated expenditures of about Rs. 62 crore last fiscal year. Based on the plans and preparatory work undertaken for this fiscal year, it is expected that the project will spend about Rs. 120 crore - close to the highest level estimated in the SAR. The Government has budgeted Rs. 80 crore for the project for this

fiscal year. During the mission, the Chief Secretary and the Finance Secretary assured that mission that additional resources would be provided for the project as needed, and that scarcity of funds was not an issue for externally-assisted projects.

7. **Recruitment.** The project has completed the recruitment of 1 Executive Engineer, 2 Assistant Executive Engineers and 1 Office Superintendent. Appointment orders for 1100 nurses have been issued, considerably higher than the 600 nurses which was benchmarked during the last mission. Interviews and recruitment of 110 medical technicians is underway and their recruitment will be completed by June 30, 1998. New benchmarks for end-October 1998 have been set for the recruitment of 8 Assistant Engineers, 1 Accountant and filling of all sanctioned posts of Assistant Engineers in KHSDP.

8. **Strategic Planning Cell (SPC).** The SPC has completed several useful activities, including: (i) organizing district level workshops in 8 districts; (ii) updating actions taken on the Karnataka Government Health Policy Matrix; (iii) completing a study on user charges, for which an executive summary will be provided by October 31, 1998; and (iv) conducting and on-going review of the activities of District Health Committees and Referral Committees. In addition, a study on Microbial Contamination in Hospitals is underway, and preliminary findings were presented to the mission. The study has documented the very high level of infection at public hospitals. It was agreed that recommendations for actions to be taken based on this study would be completed by October 31, 1998. In addition, new benchmarks for October 31, 1998 include: (a) updating actions taken on the Karnataka Government Health Policy Matrix: (b) developing a TOR for a study on public-private mix in the health sector in Karnataka; (c) developing a TOR for a study on national highway accidents and the need for development of trauma care services in Karnataka; and (d) completing a first draft on the analysis of morbidity data by district.

9. **Equipment Procurement.** Excellent progress has been made with regard to equipment procurement and has been almost completed for Phase I and II hospitals. Around 19,000 items have been ordered at a total cost of Rs. 177 million, which is about 50% of the project total. Significant savings have been achieved on some items compared to the estimates in the SAR which totaled Rs. 199 million without contingencies for the same items. Many items have been delivered to project hospitals and were observed in use by the mission during visits to facilities. Quality and value for money generally is high among the goods inspected. A few items did not meet acceptable quality standards and the PMU will take up these deficiencies with the suppliers. Tighter technical specifications need to be drawn up for a few types of equipment. Consideration must be given to proper acceptance testing of all goods supplied, particularly as regards safety of radiological systems and electro-medical equipment. Instrumentation should be provided to the in-house maintenance teams to enable them to conduct these tests. Training of users should be given priority. It was agreed that all equipment, including X-ray machines, body mortuaries and generators would be commissioned by October 31, 1998.

10. **Maintenance and Repair of Equipment:** In-house maintenance teams have been established in 16 districts. Technical staff have been given basic training and provided with workshop facilities, tools and test equipment, and a vehicle equipped as a mobile workshop. Repairs are now being undertaken for hospitals throughout the state and all activities are being well managed and fully documented. It will be useful if a report is prepared for the next supervision mission summarizing their performance in terms of the volume of work undertaken during the next 6 months and its costs. A contractor has been appointed to initiate the program of one-time repair of existing equipment. An interim report on progress will be prepared for the

next mission. A plan for establishing a bio-engineering wing within the Health Department will be reviewed. The appointment of a bio-engineer to lead that wing will be postponed until the plan is finalized and approved.

11. **Civil Works.** The progress with the civil works program has been excellent. All 198 works have been awarded to architects and preliminary designs have been completed for 191 facilities. 100 final drawings and bid documents have been completed and construction activities have commenced in 80 hospitals. This is a very impressive volume of work since the last mission. Site visits to several hospitals which are at an advanced stage of upgradation revealed that the quality of work was good. The PMU has been using inspection teams to visit construction sites for correcting minor design issues. The mission suggested that, in addition, the PMU could more effectively utilize the services of the consultant architects for periodic supervision. Such supervision would help to further improve the quality of construction, since the architects could sort out unforeseen problems and coordinate various activities such as masonry, electrical and plumbing works. Other minor design and supervision issues have been discussed with the Bank architect and are being written up separately as minutes of discussion. The benchmarks agreed for October 31, 1998 are: completion of 130 final drawings and bid documents; commencement of works at 100 hospitals for which bid documents have been cleared; and commissioning of 10 upgraded hospitals.

12. **Procurement Plan.** The procurement plan for FY98/99 was reviewed and cleared by the mission.

13. **Management of Health Care Waste.** The mission was encouraged to see the attention being paid to the management of health care waste at several facilities visited, particularly the segregation of waste through color-coded bins and the adoption of simple, low cost measures such as needle crushers. The short term action plan is being extended to all hospitals under the project. The short term and medium term pilot has been implemented in Devanahalli Taluka hospital. This short and medium term plan will be extended to 20 Phase I hospitals by October 31, 1998. The longer term plan and the final disposal method will be suitably modified following the completion of the waste management study currently underway.

14. **HMIS/Performance Indicators.** Hospital activity and efficiency information has been collected from 120 hospitals. It has been compiled district-wise and is in the process of being compiled state-wise. Quality, access and effectiveness indicators have not been assessed. It was agreed that, until construction and other inputs have been completed, assessment of the qualitative indicators through exit surveys and other methods would be held back, although a start could be made on an action plan for such evaluation. However, it was recommended that the Strategic Planning Cell work on establishing some base-line data to compare later results. The World Bank would provide some models. It was agreed that the hospital activity data for 1997-98 would be reconciled by October 31, 1998.

15. **Surveillance.** The government furnished a detailed plan for surveillance of communicable diseases in the state for review by the mission. The government indicated that establishing the State Surveillance Unit at Bangalore would be a priority, and it was agreed that this would be completed by October 31, 1998. In addition, it was agreed that 7 district surveillance units would be established by October 31, 1998 and staff would be sent for training. The mission highlighted the importance of community involvement in the functioning of the surveillance system as set out in the SAR.

16. **Training.** All the benchmarks for training have been met. Training activities for doctors, nurses and equipment maintenance technicians have been progressing well and will continue. In addition, training of pharmacists and laboratory technicians will be started. The mission has reviewed the training plan and targets provided in the background notes and found these satisfactory. To improve the quality of services at 35 institutions which will be operational in January 1999, hospital administrators would be given intensive training in hospital management and project related inputs, including hospital infection control and clinical quality assurance, by October 31, 1998. A tentative plan for short-term overseas training courses for staff in the PMU has been drawn up. The mission concurs with this proposal. It was also agreed that, to facilitate clinical training of doctors, equipment similar to that being provided under the project would be made available on loan to K. C. General Hospital, Bangalore, where the patient load is sufficient to provide quality training.

17. **Referral.** The introduction of the referral system in Chitradurga district is awaiting the upgradation of the hospitals. In view of this, it was agreed that the referral mechanism would be introduced in Udipi district where upgradation in most hospitals is underway. Actions to be taken include mapping of facilities in Udipi district, provision of referral manuals and registers, training of staff at primary and secondary health care facilities and initiating a referral system in the district by October 31, 1998. It was also agreed that the referral system would be included in the agenda of DHC meetings. It was further suggested that Midnapore district in West Bengal be visited to study the referral system in place there. The referral manual produced in West Bengal could be used as a useful guide.

18. **Yellow Card Scheme.** The Yellow Card Scheme, an annual health check-up scheme initiated in August 1997 to reach the SC/ST population at the subcenter level, has been launched in all 27 districts through one day camps at the subcenters that provide examinations and basic treatment. The scheme is well organized and is perceived favorably by both clients and service providers. A Lady Medical Officer is available at the camp-site, as well as a well-stocked dispensary and referral services. In FY97/98 486,000 people were covered under the scheme. The contribution of the medical staff and the support provided by the PMU to this scheme is commendable. Future steps to be addressed under the scheme could include innovative IEC activities, such as street theater, to provide health information to the patients awaiting check-ups and basic treatment. Next steps for the scheme include the training of two NGOs from each district to participate in the camps. A review of the implementation of the scheme at the district level will be conducted and feedback will be incorporated into the action plan by October 31, 1998.

19. **IEC.** A good start has been made to the IEC component. Pilot activities are on-going but have not been completed. The IEC plan outlined in the SAR is being implemented. It is now planned to complete the pilot activities and expand the scope of the IEC component. New benchmarks include: (a) implementing action plan for IEC for target groups by October 31, 1998; and (b) initiating IEC activities for referral services in Udipi district by October 31, 1998.

20. **Compliance with Covenants.** All covenants except the one on submission of certified audit accounts are in compliance. KHSDP is expediting action to obtain the necessary project account and SOE audit reports for FY96/97.

Attachment I

Benchmarks

Karnataka

ISSUE	BENCHMARKS	DEADLINE
Management	Continue and strengthen coordination mechanisms between SHS II, IPP VIII and IX, KfW and RCH.	Review every 6 months
	To address mismatch, fill in all specialist, X-ray technician, laboratory technician and pharmacist posts according to norms in 20 hospitals.	October 31, 1998
Recruitment	8 Assistant Engineers 1 Accountant 110 Medical Technicians Fill-up all sanctioned posts of Assistant Engineers in KHSDP	October 31, 1998
Strategic Planning Cell	Make recommendations for action to be taken based on findings to date of the Microbial Contamination study.	October 31, 1998
	Complete study on user charges, including an executive summary.	October 31, 1998
	Update actions taken on Karnataka Government Health Policy Matrix.	October 31, 1998
	Develop TOR for the study on public-private mix in the health sector.	October 31, 1998
	Develop TOR for a study on national highway accidents and need for development of trauma care services in Karnataka.	October 31, 1998
Contracting-Out	Contract-out all non-clinical services in a total of 10 hospitals.	October 31, 1998
Civil Works	Complete 130 final drawings and bid documents.	October 31, 1998
	Commence work on 100 hospitals for which final drawings have been cleared.	October 31, 1998
	Commission 10 upgraded hospitals.	
Equipment Procurement and Maintenance	Commission all X-ray machines, body mortuaries and generators procured for Phase I and II hospitals.	October 31, 1998
	Initiate procurement activities for equipment as per the procurement plan for 1998/99.	October 31, 1998
	Status report on progress with the one-time repair of equipment.	October 31, 1998
	Status report on the activities of equipment maintenance teams.	October 31, 1998
Medical Waste Management	Introduce the interim strategy on health care waste management in 20 hospitals.	October 31, 1998
HMIS	Reconcile the hospital activity indicators for 1997-98.	October 31, 1998
Referrals	Map primary and secondary health care facilities and develop referral chain in Udipi district.	June 30, 1998
	Train staff at primary and secondary health care facilities in utilizing the referral system in Udipi district.	August 31, 1998
	Initiate referral system in Udipi district, ensuring the involvement of the DHC.	October 31, 1998

ISSUE	BENCHMARKS	DEADLINE
Training	Provide management training to hospital administrators of 35 hospitals.	October 31, 1998
	Continue training of doctors, nurses and medical technicians as per action plan.	March 31, 1999
Surveillance	Establish state surveillance unit at Bangalore.	October 31, 1998
	Establish 7 district surveillance units.	October 31, 1998
	Train district surveillance officers and laboratory staff from these 7 districts.	October 31, 1998
SC/ST/Gender	Implement action plan for Yellow Card Scheme.	Continuous
	Review implementation of Yellow Card Scheme, and incorporate feedback into action plan.	October 31, 1998
IEC	Implement action plan for IEC activities in target groups.	Continuous
	Plan and initiate IEC activities for referral services in Udipi district.	August 31, 1998

GOV-2

INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II (Cr. 2833-IN)
KARNATAKA

SUPERVISION MISSION
DRAFT AIDE-MEMOIRE (NOVEMBER 1998)

1. An International Development Association team consisting of Messrs./Mmes. T. Nawaz (Team Leader), D. Porter, C. Giles, S. Rao-Seshadri, R. Kumar, P. Kudesia, M. Voss, N. Anand, J McQuaid-Cook and V. Rewal visited Karnataka between November 15 and November 20, 1998 to review implementation progress of the State Health Systems Development Project II (Cr. 2833-IN) in Karnataka. The mission met with Dr.H.C.Mahadevappa, Mr. B. K. Bhattacharya, Chief Secretary, Dr. S. Subramanya, Project Administrator, Karnataka Health Systems Development Project (KHSDP), and senior staff of KHSDP. A wrap-up meeting was held with Dr. Subramanya and senior staff of the Project Management Unit on November 20, 1998. This review was preceded by a successful major workshop bringing together all the states implementing Health Systems Projects and other senior health officials from UP, Tamil Nadu and the Union Ministry of Health and Family Welfare to share experiences and learning from the projects.

2. Project implementation progress is recorded in the following documents: Notes for the World Bank Review Mission, November 19 to 20, 1998; the Financial Report and the training documents prepared by the Karnataka Health Systems Development Project; and the KHDSP's report for the Workshop on Implementation of State Health Systems Projects in India. The aide-memoire summarizes the main findings and recommendations of the mission in Karnataka. The agreed benchmarks for the next period are given in Annex 1.

3. **Development Objectives**. The development objectives of the project are being fully met in Karnataka. DO1: Policy Indicators. Budgetary allocations for the health sector were enhanced between 1996/97 and 1998/99 and the share of health in the overall budget has increased during the same period. Within the health sector, the share of resources for the primary and secondary level has also been increased and the budget for drugs and supplies has also been enhanced. Cost recovery from user charges is growing and contracting out of non-clinical services has been expanded significantly. DO2: Quality, Access and Effectiveness Indicators. Progress is satisfactory in the area of the availability of drugs, recruitment of medical and paramedical staff, clinical and management training, maintenance services, HMIS, quality assurance and other software aspects of the project. DO3: Activity Indicators. It is too early to measure impact. The collection and analysis of data continues to improve and efforts are underway to widen the scope of this activity and its management usefulness to improve future monitoring.

4. **General Overview**. The mission was impressed by the continued excellent progress since the last supervision mission in May 1998 and implementation progress is noted as highly satisfactory. Virtually all the benchmarks have been achieved and in some cases exceeded e.g. in civil works and technical manpower recruitment. Equipment installation and one-off repair activities are slightly behind schedule but are progressing satisfactorily and should be completed by end December 1998. Operational difficulties have been encountered in the implementation of the Yellow Card Scheme and these will need to be sorted out. Noteworthy is the innovative solution to the issue of manpower deficiencies whereby Cabinet Approval has been obtained to employ staff on the basis of merit without going through the normal Public Service Commission procedures. The project is providing a basis to address system-wide health sector manpower issues including recruitment of medical and paramedical staff not funded by the project. Furthermore, the adoption of World Bank procedures has resulted in an improvement and streamlining of equipment and drug procurement procedures. An important outcome has been greater assurance to the quality of the products. The mission notes that the highly satisfactory implementation progress is due to the commitment of the Government to the project at the highest level and the continuity of the excellent project management team put in place from the early days of implementation. It would be important for

the project management team to continue to be fully in place until the mid-term review (scheduled for late May/early June) to maintain the pace of progress achieved to date.

5. Flow of Funds. The LOC system put in place is working very well and has become a model for other states. West Bengal has recently adopted this approach following successful implementation in Karnataka. Satisfactory progress has been made on expenditure with the total incurred by the project to date at Rs. 112 crores. Cumulative disbursement at the end of October 1998 was the equivalent of US$16.5 million with an additional US$3million awaiting reimbursement. Expenditures for the government FY98-99 are about Rs. 36 crores (end October) out of an allocation of Rs. 80 crores. This is in line to meet the agreed benchmark of Rs. 40 crores by end November 1998. The project officers anticipate that they will meet the spending target for the current financial year resulting in cumulative spending of Rs. 140-150 crores by the end of March 1999. The benchmark agreed for cumulative spending by MTR is Rs. 165 crores. The project is now in compliance with the covenant on certified audit accounts for 1996-97 and has already produced audit certification for the upcoming year, two months before the due date.

6. **Health Sector Development Program.** Budgetary Allocations for the Health Sector. The budgetary allocations for the health sector were enhanced from Rs. 705 crores in FY96/97 to Rs 805 crores in FY97/98 and Rs. 903 crores in FY98/99. The share of health in the overall state budget has also increased during this period. Within the health sector, the share of resources allocated to the primary and secondary levels has also increased from 85.8% to 87.3% between FY96/97 and FY98/99, and the amounts for primary and secondary health services increased from Rs. 450 crores to Rs. 697 crores. The covenant on increasing resources to the primary and secondary levels of the health system is in compliance and the state government has provided its own funds for filling critical gaps in primary health care. Cost Recovery. About Rs. 1 crore has been collected so far in secondary hospitals. This represents more than double the amount collected previously. A study on the willingness-to-pay user charges is being finalized and a strategic approach to implementation is being developed. Contracting out for non-clinical services in well underway in 10 hospitals and additional hospitals have been placed on the program for contracting out. It has now been agreed that non -clinical services will be contracted out in a total of 20 hospitals. Public/Private Mix. An innovative concept paper proposing a health maintenance organization in Devenahalli taluka has been prepared and presented to the mission for consideration as a pilot scheme. This will be funded by pooling all the existing government allocations for both state and national programs for this taluka to be supported in part by an NGO type operation under the project. The involvement of doctors in the scheme will be voluntary and patients will be entitled to choose their provider. The anticipated benefits are improved quality of care, efficiency in resource allocation and improved referral patterns. A detailed proposal is needed to consider funding under the NGO component of the project.

7. **Management and Recruitment.** Coordination has been established between the State Health Systems, IPP VIII, IPP IX, KfW and RCH Projects. An initial meeting was held to review and strengthen coordination and regular meetings are now planned for the purpose of developing better linkages with respect to training, referral and IEC activities. It was noted that the co-ordination activities are drawing on significant project resources and are time consuming. However, it has been agreed to continue this effort in order to realize the potential for greater effectiveness in program delivery. The mismatch in respect of all X-ray technician posts has been fully addressed. 80 - 85% of the mismatch of clinicians has been addressed in the first 26 project hospitals. Interviews for the posts of laboratory technicians are planned for the month of December 1998. In addition, the following categories of posts have also been filled: Assistant Engineers, Accountant and technical posts in KHSDP. All pharmacist posts will be filled by March 31, 1999. Draft services rules for the recruitment of bio-medical engineers and microbiologists will be finalized by May 31, 1999. The project is beginning to have a wider impact on other systemic problems of the wider health system with regard to recruitment policies. For example 48 of the 115 posts of dental

surgeons and 172 of the 573 assistant surgeons that are to be appointed by March 31, 1998 relate to fill existing vacant posts in the government hospitals.

8. **Strategic Planning Cell (SPC).** The recommendations of the final report on Microbial Contamination have been finalized with the senior officers in the Department of Health and Family Welfare. It is anticipated that the report will be made available shortly. A study on user charges has been completed and a strategic approach to full implementation is being developed. User charges are presently being collected in most areas. The TOR for the study on public private mix has been finalized and has been sent to the World Bank for review. In addition, new benchmarks for completion by May 31 1999 to be updated are to: (a) fill upcoming vacancies of technical officers; (b) initiate evaluation of the clinical component and the overall effectiveness and quality of the training programs; (c) complete the Microbial Contamination Study; (d) finalize the Waste Management Study; (e) update action on the policy matrix; and (f) initiate pilot studies on networking of private and public health providers in one or two talukas.

9. **Equipment Procurement.** Procedures for quality control and inspection of new equipment have been introduced. 80% of the X-ray machines, body mortuaries and generators procured for Phase I and II hospitals have been installed and commissioned. The remaining work will be completed by the end of 1998. A decision has been taken to delay the procurement of further major items so that their delivery can be timed to coincide with the completion of civil works in recipient facilities. The anticipated cost of procurement in the current year has been revised downwards to around Rs. 3 crores. Overall costs to date for the equipment procurement are significantly lower than the budget allocation in the SAR. This is a result of two main factors: a smaller than estimated need for new investment as a result of the successful one-off equipment repair program and more detailed data on existing inventories; and the significant reductions in the unit costs of the expensive equipment purchased through ICB procedures which qualify for duty exemption. It is estimated that savings of the order of Rs. 25 crores have been achieved. With the revision noted, the agreed benchmark is to complete procurement as per the 1998/98 plan by March 31, 1999.

10. **Maintenance and Repair of Equipment**: The one-off equipment repair program has proved to be a great success. Work in two divisions is completed and will be finished in the other two by December 31, 1998. Nearly 3,900 items of equipment valued at over Rs. 10 crores will have been restored to function at a cost of around Rs. 2 crores. All 16 district maintenance centers are now staffed, equipped and functioning, some in temporary premises while workshops are being constructed. A report on activities of the teams in the Bangalore division is encouraging showing that in the four month period to October 1998, more than 330 items valued at Rs. 68 lakhs had been repaired at a total cost of around 5% of the value.

11. **Civil Works.** The benchmarks agreed for October 31, 1998 have been achieved and exceeded. 136 final drawings and bid documents have been completed, works have started at 102 hospitals and 12 upgraded hospitals commissioned. This is a laudable achievement for the project team. The benchmarks agreed for May 31, 1998 are: (a) to have completed the final drawings and bid documents for a total of 170 hospitals; (b) to have commenced work on a total of 150 hospitals; and (c) to have commissioned 35 upgraded hospitals.

12. To maintain the excellent progress achieved to date in civil works and ensure that future works are grounded quickly, a formal written request will be made by GOK through DEA for a redistribution of unspent budget allocation amounting to Rs. 42 crores, principally from equipment costs to civil works. GOK requests that Schedule I of the Development Credit Agreement be amended as follows: an amount equivalent to Rs. 42 crores be transferred Bank Management that this be allowed.

13. **Management of Health Care Waste.** The benchmark for October 31, 1998 has been achieved and exceeded with the short and medium term plan introduced into 26 hospitals. The mission undertook field visits to three pilot facilities and reviewed the overall plan and the specific strategies developed for a

selection of taluka hospitals. Observations on the present functioning of the initial waste management system introduced at these institutions along with recommendations are given in Annex 2. These comment will be taken into account in extending the initial system to a total of 40 hospitals. Initial and refresher training will be conducted in these facilities by May 31, 1998. The mission noted that a draft TOR for developing a health care waste management plan is being reviewed with the Environmental Unit of the Bank's South Asia Region. The useful feedback provided during the Bangalore Workshop will be relayed to the Environmental Unit and reflected in the finalized TOR. As noted, the Strategic Planning Cell is considering the report submitted by consultants on the longer term plan and the final disposal methods. Meanwhile, consideration will be given to the options for introducing a short term plan into 100-bedded hospitals. A note on the proposed strategy would be prepared by January 31, 1999.

14. **Quality Assurance and HMIS/Performance Indicators**. The available hospital activity data for 1997-98 were reconciled by October 31, 1998. The Project Office is now receiving and analyzing monthly data from 110 project hospitals and feeding back comments on aspects of performance to the hospital administrators. This system will be computerized at Project HQ by January 31, 1999. A booklet containing monthly data reporting proformas and guidelines for daily use have been designed, printed and issued to all hospitals in the project. Training in using this system will be given to all administrative medical officers by January 31, 1999. It was agreed that a system to implement and monitor performance at all hospitals will be in place and District Quality Assurance Committees will be established by May 31, 1999.

15. **Surveillance**. An action plan for disease surveillance has been prepared with accompanying manuals, training module and contingency plan for disaster situations. A State surveillance unit has been established in Bangalore and seven diseases are being monitored through monthly reports. To strengthen the reporting, linkages need to be established with the private sector and the primary health care system. The state plans to equip and make functional 12 district laboratories by May 31, 1999. Entomologists will be appointed and trained to work in these laboratories.

16. **Training**. All the benchmarks for training have been met. Management training for hospital administrators of 35 hospitals has been completed. Training of doctors, nurses and medical technicians is in line with the agreed plans and will be ongoing. Additional training programs will be initiated in physiotherapy and training in medico-legal matters for clinicians.

17. **Referral**. A referral mechanism is being introduced in Udupi district. It was noted that introduction of the referral systems is difficult. Therefore it was acknowledged that the current scheme would be limited to the pilot district until improved infrastructure and services were in place. Progress will be reviewed by February 28, 1999.

18. **Yellow Card Scheme**. The yellow card scheme has been introduced throughout the state. However, operational difficulties have been encountered in the implementation of the scheme in the camps. Despite this, encouraging results have been received to date and further steps would include stronger linkages with services for those people diagnosed in village camps. It has now been agreed that the health check-up will be conducted annually rather than on a six monthly basis. In addition, a review of the yellow card scheme will be conducted by January 31, 1999 and the feedback incorporated into the action plan.

19. **IEC**. A comprehensive action plan has been drawn up in the form of a matrix detailing target groups, various means of communication and timing of the actions. Particular attention will be paid to IEC activities in the Udupi district to facilitate introduction of the referral system.

20. **Compliance with Covenants**. All covenants are in compliance.

21. **Mid Term Review**. It was agreed that the MTR would be scheduled for late May/early June 1999. The achievement of the benchmarks noted in the attachment will assist the Government in preparing the MTR to be undertaken with the Bank. An important activity for the Government would be to analyze expenditures that have been incurred so far, by component and categories of expenditure, and to identify what is likely to be incurred during the remaining project period. The Government would need to prepare costed proposals for this purpose and provide a rationale for the best use of funds. To assess the sustainability of the project and state health systems, it was agreed that an overall analysis of state finances, and health sector financing, would be undertaken (similar to the analysis shown in Annex 3 of the SAR). These actions would highlight the scope for any project restructuring.

Annex 1

Karnataka Agreed Benchmarks

Management	Continue and strengthen coordination mechanisms among SHS II, IPP VIII, IPP IX, KfW and RCH projects	Continuous
	Address mismatch, fill all specialist posts according to norms in 40 hospitals, including those in Udupi district	May 31, 1999
Recruitment	Complete the recruitment for 115 posts of Dental Surgeons, 573 Assistant Surgeons and 12 Graduate Pharmacists	March 31, 1999
	Finalize draft Rules for recruitment of Bio-medical Engineers and Microbiologists	May 31, 1999
Strategic Planning Cell	Fill the two vacancies of technical officers in Strategic Planning Cell	May 31, 1999
	Initiate evaluation of the clinical component and the overall effectiveness and quality of the training programs	May 31, 1999
	Finalize the study on Microbial Contamination	May 31, 1999
	Complete the study on Waste Management in Hospitals	May 31, 1999
	Update action taken on Health Policy Matrix	May 31, 1999
	Initiate pilot study on networking of Private and Public Health Providers through financial intermediaries in one or two talukas Provide draft report	December 31, 1998 May 31, 1999
Contracting out Non-clinical services	Contract out non-clinical services in 20 commissioned hospitals	May 31, 1999
Civil Works	Complete 170 final drawings and bid documents	May 31, 1999
	Commence work on 150 hospitals for which final drawings have been cleared.	May 31, 1999
	Commission 35 upgraded hospitals	May 31, 1999
Surveillance	Equip12 district level laboratories	May 31, 1999
	Finalize the formats for reporting systems and initiate reporting activities	May 31, 1999
	Appoint Entomologists in 12 laboratories	March 31, 1999

Training	Complete training of all medical officers and Entomologists in district laboratories	May 31, 1999
	Conduct training in hospital management for 50 administrative medical officers	May 31, 1999
	Initiate medico-legal training for all doctors	May 31, 1999
	Initiate training in physiotherapy	January 31, 1999
Medical Waste Management	Examine short and medium term waste management options for 100 bedded hospitals	January 31, 1999
	Extend the short and medium term waste management strategy in 40 hospitals	May 31, 1999
	Conduct initial and refresher training in 40 hospitals where Waste Management activities have been introduced	May 31, 1999
Equipment Procurement And Maintenance	Complete the procurement activities for the equipment as per the procurement plan 1998-99	March 31, 1999
	Complete one time repair of equipment throughout the state	January 31, 1999
HMIS	Conduct training of administrative medical officers in HMIS reporting formats	January 31, 1999
	Develop a computerized system for processing of HMIS data at Project Office	January 31, 1999
Referrals	Continue referral activities in Udupi district and conduct a review of the effectiveness of the functioning of the referral mechanism	February 28, 1999.
	Complete all the training activities under referral system in the Udupi district	March 31, 1999
SC/ST/ Gender Issues	Review implementation of yellow card scheme and incorporate feedback into action plan	January 31, 1999
	Review implementation of Women's' health check up scheme and incorporate feedback into action plan	March 31, 1999
IEC	Plan and initiate IEC activities for referral services in Udupi district	March 31, 1999
Quality Assurance	Implement and monitor performance indicators for all hospitals	May 31, 1999
	Establish district Quality Assurance Committees	May 31, 1999

Annex 2 : Observations on initial waste management schemes in taluka hospitals in Karnataka

The Health Care Waste Manual master template plus the strategies of five hospitals were examined. At this stage, each hospital has followed the template and has introduced their own equipment needs. Guidance given in the 1997 and subsequent 1998 manuals has not been literally transposed. The master documents clarify waste types and specify procedures for each type.

Visits to three hospitals (Nelamangala, Kunigal, Magadi), and discussions with both local project participants and staff at the hospitals indicated a high level of confidence that the letter of the Karnataka hospital strategies had been carried out. Color-coded bags and bins were all in use (although no contents were available for examination) and landfill, leachate and burial pits were seen at each hospital. Service staff were in evidence, all with aprons, gloves and boots (although female porters were not seen to be wearing the boots).

Of most significance is the use of colored bags within bins, white, blue and red (increasing in hazard classification). However, in the three hospitals visited, the following deficiencies were observed:

- few bins were placed throughout the hospital, with irregular mixes of colors; for example, in wards where most patients had baggage and food, white bins were not always present.
- wastes in blue bins were destined for further hand-separation by cleaners
- although needle crushers were in evidence and in use, doctors and staff had little knowledge of the fate of the crushed and sterilized material, other than the blue bag which would, potentially, subsequently either be separated by cleaners or deposited in the landfill
- no bins containing wastes were available for inspection
- no storage facilities or full bags were available for inspection
- pits at two hospitals appeared not yet to be in use - no alternate disposal location was available for inspection and no knowledge was offered as to the present fate of this day's waste
- the pit at the third hospital contained all colored bags (despite the information that the bags would be emptied, sterilized and recycled and the pit contents destined for composting). The bags had not been sterilized and all three colors were present.

The conclusions from this mini audit are:

- the reasons for segregation are not fully understood by management or staff
- despite presence of pits, wastes are still following original/alternate disposal routes
- the use of the pits is not in accordance with the original guidance
- the hospital-specific guidance lacks clarification of pit usage
- once full, there is no clear understanding of the fate of pit material
- full pits would be difficult to empty for further use
- no plans were in place for either re-use or closure of pit
- no waste survey records were being kept

Recommendations

- a broader context of awareness-building and training be provided to Karnataka project staff
- basic training be strengthened at hospitals, to lead to further information on project rationale and not just process
- monitoring of waste management systems take place during each inspection tour
- bag (size, color, locations, numbers) and pit (size, location, covering, closure, final repositories) all be reassessed before the system continues
- initiate broad-brush surveys of bag numbers - this to lead to understanding of waste types, amounts and locations, vital for ultimate options appraisal.

CREDIT NUMBER 2833 IN

Development Credit Agreement

(Second State Health Systems Development Project)

between

INDIA

and

INTERNATIONAL DEVELOPMENT ASSOCIATION

Dated April 18, 1996

CREDIT NUMBER 2833 IN

DEVELOPMENT CREDIT AGREEMENT

AGREEMENT, dated April 18, 1996, between INDIA, acting by its President (the Borrower) and INTERNATIONAL DEVELOPMENT ASSOCIATION (the Association).

WHEREAS (A) the Association has received a letter dated February 13, 1996, February 15, 1996 and February 8, 1996 from the State of Karnataka, the State of Punjab and the State of West Bengal respectively (collectively the Project States), each such letter describing a program of objectives, policies and actions to improve the primary and first referral levels of health care (hereinafter referred to as the Karnataka Health Sector Development Program, the Punjab Health Sector Development Program and the West Bengal Health Sector Development Program, respectively) and declaring the respective Project State's commitment to carry out its Health Sector Development Program;

WHEREAS (B) the Borrower, having satisfied itself as to the feasibility and priority of the Project described in Schedule 2 to this Agreement, has requested the Association to assist in the financing of the Project;

(C) relevant parts of the Project will be carried out by the Project States and the Punjab Health Systems Corporation with the Borrower's assistance and, as part of such assistance, the Borrower will make available to the Project States and to the Punjab Health Systems Corporation through the State of Punjab the proceeds of the Credit as provided in this Agreement; and

WHEREAS the Association has agreed, on the basis, inter alia, of the foregoing, to extend the Credit to the Borrower upon the terms and conditions set forth in this Agreement and in the Project Agreement of even date herewith between the Association of one part and the Project States and the Punjab Health Systems Corporation of the other part;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

General Conditions; Definitions

Section 1.01. The "General Conditions Applicable to Loan and Guarantee Agreements" of the Bank, dated January 1, 1985, with the modifications set forth below (the General Conditions) constitute an integral part of this Agreement;

(a) The last sentence of Section 3.02 is deleted.

(b) The second sentence of Section 5.01 is modified to read:

"except as the Bank and the Borrower shall otherwise agree, no withdrawals shall be made: (a) on account of expenditures in the territories of any country which is not a member of the Bank or for goods produced in, or services supplied from, such territories; or (b) for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Association, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations."

Section 1.02. Unless the context otherwise requires, the several terms defined in the General Conditions and in the Preamble to this Agreement have the respective meanings therein set forth and the following additional terms have the following meanings:

(a) "District Health Committees" means District Health Committees established in each district of Karnataka and West Bengal;

(b) "DOHFW" means the Department of Health and Family Welfare of a Project State;

(c) "Fiscal Year" or "FY" means the Fiscal Year of the Borrower, a Project State or PHSC beginning on April 1 of the calendar year and ending on March 31 of the following calendar year;

(d) "Karnataka" means the Borrower's State of Karnataka, or any successor thereto;

(e) "Ordinance" means the Punjab Health Systems Corporation Ordinance dated October 20, 1995 promulgated by the Governor of Punjab for purposes, inter alia, of establishing, expanding, improving and administering medical care in Punjab, and includes any subsequent legislation based on the Ordinance;

(f) "PHSC" means the Punjab Health Systems Corporation constituted pursuant to the provisions of the Ordinance by a notification issued by the Governor of Punjab on February 1, 1996 and effective as of October 20, 1995;

(g) "Primary Level Health Services" means preventive and [illegible] health services provided by sub-centers, primary health centers, community health centers and dispensaries in the Project States;

(h) "Project Agreement" means the agreement among the Association and State of Karnataka and State of Punjab and State of West Bengal and Punjab Health Systems Corporation of even date herewith, as the same may be amended from time to time, and such term includes all schedules and agreements supplemental to the Project Agreement;

(i) "Project States" means Karnataka, West Bengal and Punjab collectively, and "Project State" means any one of them individually;

(j) "Punjab" means the Borrower's State of Punjab, or any successor thereto;

(k) "Regulations" means the Regulations dated February 15, 1996 issued by PHSC pursuant to the provisions of the Ordinance for the operation of PHSC and setting forth such matters as procedures for operation of the Board of PHSC, personnel policies, procurement policies and procedures, auditing and accounting arrangements, service improvements mechanisms and implementation of user charges;

(l) "Scheduled Castes" refers to the population groups specified as "Scheduled Castes" pursuant to Article 341 of the Constitution of India;

(m) "Scheduled Tribes" refers to the population groups specified as "Scheduled Tribes" pursuant to Article 342 of the Constitution of India;

(n) "Secondary or First Referral Level Health Services" means clinical, diagnostic and other services provided by community/rural, sub-divisional/taluka/state general and district hospitals in the Project States;

(o) "Special Account" means the account referred to in Section 2.02 (b) of this Agreement;

(p) "Strategic Planning Cell" means the strategic planning cell established within DOHFW;

(q) "Tertiary Level Health Services" means highly complex and technical medical services provided by specialized hospitals in the Project States;

(r) "Tribal and Backward Area Development Strategy" means the strategy dated October 17, 1995 of Karnataka and West Bengal, satisfactory to the Association,

hat is aimed, inter alia, at increasing the demand for, and improving the quality of nedical and hospital services for the Scheduled Tribes in each such Project State and for he economically disadvantaged groups in the Sunderbans Area of West Bengal; and

(s) "West Bengal" means the Borrower's State of West Bengal, or any successor thereto.

ARTICLE II

The Credit

Section 2.01. The Association agrees to lend to the Borrower, on the terms and conditions set forth or referred to in the Development Credit Agreement, an amount in various currencies equivalent to two hundred thirty five million five hundred thousand Special Drawing Rights (SDR 235,500,000).

Section 2.02. (a) The amount of the Credit may be withdrawn from the Credit count in accordance with the provisions of Schedule 1 to this Agreement for expenditures made (or, if the Association shall so agree, to be made) in respect of the reasonable cost of goods and services required for the Project and to be financed out of the proceeds of the Credit.

(b) The Borrower may, for the purposes of the Project, open and maintain in dollars a special deposit account in the Reserve Bank of India on terms and conditions satisfactory to the Association. Deposits into, and payments out of, the Special Account shall be made in accordance with the provisions of Schedule 3 to this Agreement.

Section 2.03. The Closing Date shall be March 31, 2002 or such later date as the Association shall establish. The Association shall promptly notify the Borrower of such later date.

Section 2.04. (a) The Borrower shall pay to the Association a commitment charge on the principal amount of the Credit not withdrawn from time to time at a rate to e set by the Association as of June 30 of each year, but not to exceed the rate of one-half of one percent (1/2 of 1%) per annum.

(b) The commitment charge shall accrue: (i) from the date sixty days after the date of this Agreement (the accrual date) to the respective dates on which amounts shall be withdrawn by the Borrower from the Credit Account or canceled; and (ii) at the rate set as of the June 30 immediately preceding the accrual date and at such other rates as may be set from time to time thereafter pursuant to paragraph (a) above. The rate set as of June 30 in each year shall be applied from the next date in that year specified in Section 2.06 of this Agreement.

(c) The commitment charge shall be paid: (i) at such places as the Association shall reasonably request; (ii) without restrictions of any kind imposed by, or in the territory of, the Borrower; and (iii) in the currency specified in this Agreement for the purposes of Section 4.02 of the General Conditions or in such other eligible currency or currencies as may from time to time be designated or selected pursuant to the provisions of that Section.

Section 2.05. The Borrower shall pay to the Association a service charge at the rate of three-fourths of one per cent (3/4 of 1%) per annum on the principal amount of the Credit withdrawn and outstanding from time to time.

Section 2.06. Commitment charges and service charges shall be payable semiannually on March 15 and September 15 in each year.

Section 2.07. (a) Subject to paragraphs (b) and (c) below, the Borrower shall repay the principal amount of the Credit in semi-annual installments payable on each March 15 and September 15 commencing September 15, 2006 and ending March 15, 2031. Each installment to and including the installment payable on March 15, 2016 shall be one and one-fourth percent (1-1/4%) of such principal amount, and each installment thereafter shall be two and one-half percent (2-1/2%) of such principal amount.

(b) Whenever (i) the Borrower's gross national product per capita, as determined by the Association, shall have exceeded $790 in constant 1985 dollars for five consecutive years and (ii) the Bank shall consider the Borrower creditworthy for Bank lending, the Association may, subsequent to the review and approval thereof by the Executive Directors of the Association and after due consideration by them of the development of the Borrower's economy, modify the terms of repayment of installments under paragraph (a) above by requiring the Borrower to repay twice the amount of each such installment not yet due until the principal amount of the Credit shall have been repaid. If so requested by the Borrower, the Association may revise such modification to include, in lieu of some or all of the increase in the amounts of such installments, the payment of interest at an annual rate agreed with the Association on the principal amount of the Credit withdrawn and outstanding from time to time, provided that, in the judgment of the Association, such revision shall not change the grant element obtained under the above-mentioned repayment modification.

(c) If, at any time after a modification of terms pursuant to paragraph (b) above, the Association determines that the Borrower's economic condition has deteriorated significantly, the Association may, if so requested by the Borrower, further modify the terms of repayment to conform to the schedule of installments as provided in paragraph (a) above.

Section 2.08. The currency of the United States of America is hereby specified for the purposes of Section 4.02 of the General Conditions.

ARTICLE III

Execution of the Project

Section 3.01. (a) The Borrower declares its commitment to the objectives of the Project as set forth in Schedule 2 to this Agreement, and, to this end, without any limitation or restriction upon any of its other obligations under the Development Credit Agreement, shall cause the Project States and PHSC to perform in accordance with the provisions of the Project Agreement all the respective obligations of the Project States and PHSC therein set forth, shall take and cause to be taken all action, including the provision of funds, facilities, services and other resources, necessary or appropriate to enable the Project States and PHSC to perform such obligations, and shall not take or permit to be taken any action which would prevent or interfere with such performance.

(b) The Borrower shall make the proceeds of the Credit available to the Project States in accordance with the Borrower's standard arrangements for developmental assistance to the States of India and, in the case of Punjab, shall ensure that such proceeds are transferred as part of Punjab's grant contribution to PHSC in accordance with the provisions of the Ordinance.

Section 3.02. Except as the Association shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Credit shall be governed by the provisions of Schedule 1 to the Project Agreement.

Section 3.03. The Borrower and the Association hereby agree that the obligations set forth in Sections 9.03, 9.04, 9.05, 9.06, 9.07 and 9.08 of the General Conditions (relating to insurance, use of goods and services, plans and schedules, records and reports, maintenance and land acquisition, respectively) in respect of the Project shall be carried out by the Project States and PHSC pursuant to Section 2.03 of the Project Agreement.

Section 3.04. The Borrower shall participate in the carrying out of the mid-term review of the Project referred to in paragraph 12 of Schedule 2 to the Project Agreement.

ARTICLE IV

Financial Covenants

Section 4.01. (a) For all expenditures with respect to which withdrawals from the Credit Account were made on the basis of statements of expenditures, the Borrower shall:

(i) maintain or cause to be maintained in accordance with sound accounting practices, records and accounts reflecting such expenditures;

(ii) ensure that all records (contracts, orders, invoices, bills, receipts and other documents) evidencing such expenditures are retained until at least one year after the Association has received the audit report for the fiscal year in which the last withdrawal from the Credit Account was made; and

(iii) enable the Association's representatives to examine such records.

(b) The Borrower shall:

(i) have the records and accounts referred to in paragraph (a) (i) of this Section and those for the Special Account for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to the Association;

(ii) furnish to the Association as soon as available, but in any case not later than nine months after the end of each such year the report of such audit by said auditors, of such scope and in such detail as the Association shall have reasonably requested, including a separate opinion by said auditors as to whether the statements of expenditure submitted during such fiscal year, together with the procedures and internal controls involved in their preparation, can be relied upon to support the related withdrawals; and

(iii) furnish to the Association such other information concerning said records and accounts and the audit thereof as the Association shall from time to time reasonably request.

ARTICLE V

Remedies of the Association

Section 5.01. Pursuant to Section 6.02 (h) of the General Conditions, the following additional events are specified:

(a) Any Project State or PHSC shall have failed to perform any of its obligations under the Project Agreement.

(b) As a result of events which have occurred after the date of the Development Credit Agreement, an extraordinary situation shall have arisen which shall make it improbable that any Project State or PHSC will be able to perform its obligations under the Project Agreement.

(c) The Ordinance shall have lapsed, or the Ordinance or the Regulations shall have been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of PHSC to perform any of its obligations under the Project Agreement.

(d) The Borrower, Punjab or any other authority having jurisdiction shall have taken any action for the dissolution or disestablishment of PHSC or for the suspension of its operations.

(e) An event shall have occurred which shall make it improbable that the Karnataka Health Sector Development Program or the Punjab Health Sector Development Program or the West Bengal Health Sector Development Program or a significant part of any such Program will be carried out.

Section 5.02. Pursuant to Section 7.01 (d) of the General Conditions, the following additional events are specified:

(a) the event specified in paragraph (a) of Section 5.01 of this Agreement shall occur and shall continue for a period of sixty days after notice thereof shall have been given by the Association to the Borrower; and

(b) the events specified in paragraphs (c) and (d) of Section 5.01 of this Agreement shall occur.

ARTICLE VI

Effective Date; Termination

Section 6.01. The following is specified as an additional matter, within the meaning of Section 12.02 (b) of the General Conditions, to be included in the opinion or opinions to be furnished to the Association, namely, that the Project Agreement has been duly authorized or ratified by the Project States and PHSC respectively, and is legally binding upon each of them in accordance with its terms.

Section 6.02. The date ninety (90) days after the date of this Agreement is hereby specified for the purposes of Section 12.04 of the General Conditions.

Section 6.03. The provisions of Section 5.02 of this Agreement shall cease and determine on the date on which the Development Credit Agreement shall terminate or on the date twenty years after the date of this Agreement, whichever shall be the earlier.

ARTICLE VII

Representatives of the Borrower; Addresses

Section 7.01. The Secretary, Additional Secretary, Joint Secretary, Director, Deputy Secretary or Under Secretary of the Department of Economic Affairs in the Ministry of Finance of the Borrower is designated as representative of the Borrower for the purposes of Section 11.03 of the General Conditions.

Section 7.02. The following addresses are specified for the purposes of Section 11.01 of the General Conditions:

For the Borrower:

The Secretary to the Government of India
Department of Economic Affairs
Ministry of Finance
New Delhi, India

Cable address: ECOFAIRS
New Delhi

Telex: 953-3166175

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address: INDEVAS
Washington, D.C.

Telex: 197688 (TRT),
248423 (RCA),
64145 (WUI) or 82987 (FTCC)

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

INDIA

By /s/ N. Valluri

Authorized Representative

INTERNATIONAL DEVELOPMENT ASSOCIATION

By /s/ Heinz Vergin

Acting Regional Vice President
South Asia

SCHEDULE 1

Withdrawal of the Proceeds of the Credit

1. The table below sets forth the Categories of items to be financed out of the proceeds of the Credit, the allocation of the amounts of the Credit to each Category and the percentage of expenditures for items so to be financed in each Category:

Category	Amount of the Credit Allocated (Expressed in SDR Equivalent)	% of Expenditures to be Financed
(1) Civil works		85%
(a) Karnataka	21,100,000	
(b) Punjab & PHSC	23,100,000	
(c) West Bengal	35,900,000	
(2) Equipment, vehicles, furniture, medicines, supplies and materials		100% of foreign expenditures. 100% of local expenditures (ex-factory cost) and 80% of local expenditures for other items procured locally
(a) Karnataka	29,300,000	
(b) Punjab & PHSC	21,000,000	
(c) West Bengal	42,900,000	
(3) Consultants' services, fellowships, studies and training		100%
(a) Karnataka	5,900,000	
(b) Punjab & PHSC	4,800,000	
(c) West Bengal	6,100,000	
(4) Incremental salaries, and incremental operations and maintenance costs		90% until December 31, 1998, 75% until December 31, 2000 and 40% thereafter

Category	Amount of the Credit Allocated (Expressed in SDR Equivalent)	% of Expenditures to be Financed
(a) Karnataka	12,100,000	SDR in Million
(b) Punjab & PHSC	6,700,000	1(a) – 21·10
(c) West Bengal	7,400,000	2(a) – 29·80
(5) Unallocated	18,700,000	3(a) – 5·90
		4(a) – 12·10
TOTAL	235,500,000	Total 68·90

2. For the purposes of this Schedule:

(a) the term "foreign expenditures" means expenditures in the currency of any country other than that of the Borrower for goods or services supplied from the territory of any country other than that of the Borrower;

(b) the term "local expenditures" means expenditures in the currency of the Borrower or for goods or services supplied from the territory of the Borrower;

(c) the term "incremental salaries" means salaries in respect of posts created for the Project on or after May 1, 1995, including in respect of contractual services; and

(d) the term "incremental operations and maintenance costs" means costs incurred under the Project on or after May 1, 1995 for the operations and maintenance of vehicles, equipment, furniture, buildings and offices.

3. Notwithstanding the provisions of paragraph 1 above, no withdrawals shall be made in respect of payments made for expenditures prior to the date of this Agreement, except that withdrawals, in an aggregate amount not exceeding the equivalent of SDR 6,800,000, may be made on account of payments made for expenditures before that date but on or after May 1, 1995.

4. The Association may require withdrawals from the Credit Account to be made on the basis of statements of expenditure for expenditures for:

(a) goods and works under contracts not exceeding the equivalent of $200,000 and $300,000 respectively, under such terms and conditions as the Association shall specify by notice to the Borrower;

(b) services under contracts not exceeding $100,000 equivalent for employment of consulting firms and $50,000 equivalent for employment of individual consultants; and

(c) incremental salaries, and incremental operations and maintenance costs.

SCHEDULE 2

Description of the Project

The objectives of the Project are: (i) to improve efficiency in the allocation and use of health resources in the Project States through policy and institutional development; and (ii) to improve the performance of the health care system in the Project States through improvements in the quality, effectiveness and coverage of health services at the first referral level and selective coverage at the primary level, so as to improve the health status of the people, especially the poor, by reducing mortality, morbidity and disability.

The Project consists of the following parts, subject to such modifications thereof as the Borrower and the Association may agree upon from time to time to achieve such objectives:

Part A: Management Development and Institutional Strengthening

1. Improving the institutional framework for policy development through the establishment of a Strategic Planning Cell to review and evaluate critical issues in the health sector, including private health care and insurance, burden of disease and cost-effectiveness of public health interventions, medical manpower, cost recovery mechanisms and sectoral resource allocation patterns.

2. Strengthening management and implementation capacity through: (i) provision of physical facilities in Karnataka and West Bengal; (ii) renovation and expansion of the office facility of PHSC and DCHFW in Punjab; (iii) provision of additional staff at the Head Office of DCHFW in Karnataka and West Bengal; (iv) reorienting the organizational structure of DCHFW in Karnataka and West Bengal and the PHSC in Punjab; (v) enhancing and extending the computerized system of data collection and utilization through the provision of hardware and software, and consultancy support; (vi) establishing trained and equipped information cells; (vii) training management staff in appropriate record keeping; (viii) introducing a revised medical record keeping system for in-patients and diagnostic services; and (ix) provision of support to PHSC for the promotion of health care activities in Punjab through private and voluntary organizations.

3. Developing surveillance capacity for major communicable diseases to cover the identification of cases through, inter alia, laboratory support, education of health workers and community involvement, and indexing of cases or isolation of cases and treatment.

Part B: Improving Service Quality, Access and Effectiveness at the First Referral Level

1. Renovation and extension of hospitals providing Secondary or First Referral Level Health Services and construction of staff quarters.

2. Strengthening and improving the effectiveness of clinical and support services at hospitals providing Secondary or First Referral Level Health Services through, inter alia, (i) establishment and application of streamlined norms and standards for technical services, staffing, quality assurance, contracting out services, and monitoring improvements in the quality of clinical care; and (ii) provision of training to strengthen staff skills in clinical and technical areas, to improve the quality of management services and enhance the capacity for equipment maintenance; and (iii) provision of training to enhance management and supervision capabilities of DOHFW in Karnataka and West Bengal and PHSC in Punjab in respect of essential operational activities, including construction and maintenance activities.

3. Improving the referral mechanism and strengthening linkages with the Primary Level Health Services and the Tertiary Level Health Services through, inter alia, (i) the provision of technical support to improve the quality of care at the Primary Level Health Services and the Secondary or First Referral Level Health Services; (ii) establishing and implementing referral and clinical management protocols; (iii) formulating and implementing mechanisms to provide greater access to Secondary Level Health Services and Tertiary Level Health Services in a timely and effective manner; and (iv) establishing and implementing an incentive system with differentiated fees for users and non-users of the referral mechanism.

Part C: Improving Access to Primary Health Care in Remote and Underdeveloped Areas

1. Renovation and extension of primary health centers providing Primary Level Health Services in the Sundarbans Area of West Bengal and establishment and operation of floating medical units to deliver effective health care in the riverine areas, including establishment and operation of a wireless communication system.

2. Increasing access to primary health care services among Scheduled Caste and Scheduled Tribe population in Karnataka through, inter alia, introduction of a system of annual health check-ups, establishment of health check-up camps, dissemination of general information related to implementing the referral mechanisms referred to in Part B (3) hereof and maintaining records of health check-ups.

* * *

The project is expected to be completed by September 30, 2001.

SCHEDULE 3

Special Account

1. For the purposes of this Schedule:

(a) the term "eligible Categories" means Categories (1), (2), (3) and (4) set forth in the table in paragraph 1 of Schedule 1 to this Agreement;

(b) the term "eligible expenditures" means expenditures in respect of the reasonable cost of goods and services required for the Project and to be financed out of the proceeds of the Credit allocated from time to time to the eligible Categories in accordance with the provisions of Schedule 1 to this Agreement; and

(c) the term "Authorized Allocation" means an amount equivalent to $17,000,000 to be withdrawn from the Credit Account and deposited into the Special Account pursuant to paragraph 3 (a) of this Schedule, provided, however, that unless the Association shall otherwise agree, the Authorized Allocation shall be limited to an amount equivalent to $8,500,000 until the aggregate amount of withdrawals from the Credit Account plus the total amount of all outstanding special commitments entered into by the Association pursuant to Section 5.02 of the General Conditions shall be equal to or exceed the equivalent of SDR 29,000,000.

2. (a) Payments out of the Special Account shall be made exclusively for eligible expenditures in accordance with the provisions of this Schedule.

(b) Each payment (including a payment under a letter of credit) for an eligible expenditure in an amount equal to or less than the equivalent of $5,500,000 shall be made exclusively out of the Special Account. The Association may from time to time, by notice to the Borrower, revise the threshold amount specified in the preceding sentence.

3. After the Association has received evidence satisfactory to it that the Special Account has been duly opened, withdrawals of the Authorized Allocation and subsequent withdrawals to replenish the Special Account shall be made as follows:

(a) For withdrawals of the Authorized Allocation, the Borrower shall furnish to the Association a request or requests for deposit into the Special Account of an amount or amounts which do not exceed the aggregate amount of the Authorized Allocation. On the basis of such request or requests, the Association shall, on behalf of the Borrower, withdraw from the Credit Account and deposit into the Special Account such amount or amounts as the Borrower shall have requested.

(b) (i) For replenishment of the Special Account, the Borrower shall furnish to the Association requests for deposits into the Special Account at such intervals as the Association shall specify.

(ii) Prior to or at the time of each such request, the Borrower shall furnish to the Association the documents and other evidence required pursuant to paragraph 4 of this Schedule for the payment or payments in respect of which replenishment is requested. On the basis of each such request, the Association shall, on behalf of the Borrower, withdraw from the Credit Account and deposit into the Special Account such amount as the Borrower shall have requested and as shall have been shown by said documents and other evidence to have been paid out of the Special Account for eligible expenditures.

All such deposits shall be withdrawn by the Association from the Credit Account under the respective eligible Categories, and in the respective equivalent amounts, as shall have been justified by said documents and other evidence.

4. For each payment made by the Borrower out of the Special Account, the Borrower shall, at such time as the Association shall reasonably request, furnish to the Association such documents and other evidence showing that such payment was made exclusively for eligible expenditures.

5. Notwithstanding the provisions of paragraph 3 of this Schedule, the Association shall not be required to make further deposits into the Special Account:

(a) if, at any time, the Association shall have determined that all further withdrawals should be made by the Borrower directly from the Credit Account in accordance with the provisions of Article V of the General Conditions and paragraph (a) of Section 2.02 of this Agreement;

(b) if the Borrower shall have failed to furnish to the Association, within the period of time specified in Section 4.01 (b) (ii) of this Agreement, any of the audit reports required to be furnished to the Association pursuant to said Section in respect of the audit of the records and accounts for the Special Account;

(c) if, at any time, the Association shall have notified the Borrower of its intention to suspend in whole or in part the right of the Borrower to make withdrawals from the Credit Account pursuant to the provisions of Section 6.02 of the General Conditions; or

(d) once the total unwithdrawn amount of the Credit allocated to the eligible Categories for the Project, minus the total amount of all outstanding special commitments entered into by the Association pursuant to Section 5.02 of the General Conditions with respect to the Project, shall equal the equivalent of twice the amount of the Authorized Allocation.

Thereafter, withdrawal from the Credit Account of the remaining unwithdrawn amount of the Credit allocated to the eligible Categories for the Project shall follow such procedures as the Association shall specify by notice to the Borrower. Such further withdrawals shall be made only after and to the extent that the Association shall have been satisfied that all such amounts remaining on deposit in the Special Account as of the date of such notice will be utilized in making payments for eligible expenditures.

6. (a) If the Association shall have determined at any time that any payment out of the Special Account: (i) was made for an expenditure or in an amount not eligible pursuant to paragraph 2 of this Schedule; or (ii) was not justified by the evidence furnished to the Association, the Borrower shall, promptly upon notice from the Association: (A) provide such additional evidence as the Association may request; or (B) deposit into the Special Account (or, if the Association shall so request, refund to the Association) an amount equal to the amount of such payment or the portion thereof not so eligible or justified. Unless the Association shall otherwise agree, no further deposit by the Association into the Special Account shall be made until the Borrower has provided such evidence or made such deposit or refund, as the case may be.

(b) If the Association shall have determined at any time that any amount outstanding in the Special Account will not be required to cover further payments for eligible expenditures, the Borrower shall, promptly upon notice from the Association, refund to the Association such outstanding amount.

(c) The Borrower may, upon notice to the Association, refund to the Association all or any portion of the funds on deposit in the Special Account.

(d) Refunds to the Association made pursuant to paragraphs 6 (a), (b) and (c) of this Schedule shall be credited to the Credit Account for subsequent withdrawal or for cancellation in accordance with the relevant provisions of this Agreement, including the General Conditions.

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Annexure II

INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
AGREED MINUTES OF NEGOTIATIONS

1. Negotiations for a proposed Credit of SDR 235.5 million (the Credit) for a State Health Systems Development Project II (the Project) were held between the representatives of India (the Borrower), the States of Karnataka, Punjab and West Bengal (the Project States), the Punjab Health Systems Corporation (PHSC) (the Indian Delegation) and the International Development Association (IDA) (the IDA Delegation) at World Bank Headquarters in Washington D.C., from January 29 to February 2, 1996. The representatives of the Indian Delegation and the IDA Delegation agreed on the draft Project Agreement and the draft Development Credit Agreement (DCA), versions dated February 2, 1996.

Actions Taken Prior to Negotiations

2. As a condition of Negotiations, the following actions have been taken:

(i) a draft letter of Health Sector Development Program has been furnished by each state;

(ii) relevant state Government clearances, as well as clearance from the Planning Commission, GOI, were obtained;

(iii) Strategic Planning Cells have been set up within the DOHFW in Karnataka, Punjab and West Bengal;

(iv) a mechanism for ensuring that the existing levels of user charges are implemented more rigorously has been approved, an agreed mechanism for exempting the poor from user fees is in place, and District Health Committees in Karnataka and West Bengal have been approved/established;

(v) an Ordinance has been passed by the Government of Punjab, establishing the PHSC;

(vi) regulations relating to Board procedures, personnel policies, audits and accounts, and user charges have been drafted and provided by PHSC to IDA for review;

(vii) in Karnataka, the Project Governing Board, Steering Committee and Engineering Wing have been established, and key staff have been approved or hired;

(viii) in Punjab, key staff, including the Managing Director of the PHSC, have been appointed;

(ix) in West Bengal, key staff, including Project Director, have been hired; and

(x) in Karnataka and West Bengal, Government Orders have been issued, providing authority to DOHFW to manage essential operational activities including civil works construction and maintenance activities.

2/2/96

Attested
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Agreements and Understandings Reached

3. The following elaborates the agreements reached relating to the legal documents and other understandings.

DEVELOPMENT CREDIT AGREEMENT

4. Article II, Section 2.01: Credit Amount. It was agreed to increase the credit amount from US$342.2 million equivalent to US$350.0 million equivalent. The agreed amount would be equal to SDR 235.5 million. The additional amount of US$7.8 million equivalent would finance medicines, and Management Information Systems (MIS) supplies and Information, Education and Communications (IEC) materials in West Bengal (US$2.8 million equivalent) and Punjab (US$ 5.0 million equivalent).

5. Article II, Section 2.02: Closing Date. It was agreed that the Closing Date would be brought forward from June 30, 2002 to March 31, 2002.

6. Article III, Section 3.01 (b): Flow of Funds from GOI. GOI confirmed that, throughout the life of the project, it would follow the standard procedure for releasing about three months anticipated project expenditures in advance to the Project States to cover expenditures under the project, subject to periodic adjustment of the advances. Upon receipt, the Project States shall release such funds together with their own quarterly allocations to agencies responsible for carrying out the project, to be used exclusively for expenditures eligible under the project. In Punjab, upon receipt, such funds will be promptly transferred to PHSC as required for timely project implementation.

7. Article V, Section 5.01 (e): Remedies of the Association. After discussion it was agreed to keep this remedy related to the Health Sector Development Program. The Indian Delegation noted that the Letter of Health Sector Development Program describes a program of policies and actions and felt that the content of the Letter was not tantamount to a mutually agreed obligation on the part of the Borrower. It was further stated that the commitment by the Project States to the Letter of Health Sector Development Program should not therefore be a monitorable activity on which remedies could be invoked. The IDA Delegation responded that the project was an investment operation with substantial policy content, and this provision formed the basis for remedial action in case an event occurs that makes it improbable that the Health Sector Development Program for each Project State or a significant part thereof will be carried out. The IDA Delegation further explained that the commitment of the Project States to carrying out such a program is an important part of IDA support for the project. It was, therefore, deemed necessary to retain this covenant.

8. Schedule 1: Withdrawal of the Proceeds of the Credit. The Indian Delegation highlighted the fact that health is a state subject, and this project covers three states. As such, it is important that any state be aware of how it has been performing. In case the share of projected IDA allocations to any particular state has to be changed, it should be done through a transparent process where each state knows what is happening to its share. Flexibility cannot be at the expense of transparency. This necessitates that information regarding project implementation and disbursement is available for each implementing state. Hence the information in Schedule 1 should be disaggregated by Project States. The IDA Delegation pointed out that this would provide a piecemeal solution to monitoring disbursements by GOI and would reduce flexibility with regard to categories of disbursements across states. Nonetheless, at the insistence of the Indian Delegation,

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it was agreed that Schedule 1 would be disaggregated by Project States. It was noted that this format of showing Schedule 1 by Project State would not set a precedent for other projects in the future

9. Schedule 1 Recurrent Cost Financing. The recurrent cost financing issue was discussed in detail. It was agreed not to increase the level of recurrent cost financing as well as to retain the 40% level of recurrent cost financing by the Association for the final year of the project. The cut-off dates for the declining levels of financing were changed from the end of the fiscal year to the end of the calendar year.

Schedule 2: Description of the Project.

10. Part A: Management Development and Institutional Strengthening. Under this component, a provision has been included to support the PHSC in the promotion of health care activities in Punjab through private and voluntary organizations. A corresponding reference has been made in Schedule 2: Implementation Program of the Project Agreement.

11. Schedule 3: Special Account. It was agreed to increase the Special Account from US$15 million to US$ 17 million equivalent.

PROJECT AGREEMENT

12. Article III: Section 3.01 (b) (i): Financial Covenants. It was agreed that the Comptroller and Auditor General of India would be the independent auditor of the project records and accounts of the Governments of Karnataka, Punjab and West Bengal for the purposes of Section 4.01 of the Development Credit Agreement and Section 3.01 of the Project Agreement. In addition, in Punjab, an independent commercial auditor would audit the accounts of the Punjab Health Systems Corporation. It was agreed that the Project States would make available to the auditors the SAR, Project Agreement and the Development Credit Agreement. The relevant information would be provided by the Project Management in each state to the auditors.

Schedule 1: Procurement and Consultant Services.

13. Section 1, Part C, paras. 2 & 3: Other Procurement Procedures. IDA reviewed procurement documents and agreed that at this time no further requirements on procurement aspects prior to Board presentation are anticipated. It was recalled, as in all previous projects of the last few years, that for all contracts to be financed from the Credit under NCB procedures:

(a) no special preference will be accorded to domestic bidders when competing with foreign bidders, or given to state owned enterprises, small scale enterprises, or enterprises from any given state;

(b) except with the prior concurrence of the Association, there will be no negotiation of price with bidders, even with the lowest evaluated bidder;

(c) except with the prior approval of the Association prior to bidding, the system of rejecting bids outside a predetermined margin or "bracket" of prices will not be used; and

(d) rate contracts entered into by the Borrower's Directorate General of Supplies and

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Disposal (DGS&D) will not be acceptable as a substitute for NCB procedures. Such contracts will be acceptable for any procurement under local shopping procedures. For international shopping procedures, quotations should also be invited from one or more foreign suppliers for comparisons with DGS&D rate contracts.

14. Section 1, Part C; para 2: Other Procurement Procedures. It was agreed that, for "Other Categories of Procurement", the allotted amounts would be pro-rated between the Project States on the basis of the respective sizes of the Credit amounts.

Schedule 2: Implementation Program.

15. Para. 1 (a): The covenant on maintaining the share of the health sector allocation to the overall budget was moved to the Letter of Health Sector Development Program, with some minor modifications relevant to each state as suggested by the Indian Delegation.

16. Para. 1 (c): Details regarding norms acceptable to the Association for essential drugs and supplies, and maintenance of equipment and buildings at first referral level hospitals are provided in Attachments 1 and 2.

17. Para. 2: The Association confirms that the terms of reference of the Strategic Planning Cell, provided in the Letter of Health Sector Development Program, are acceptable.

18. Para. 3: The parties agreed that user charges shall be levied in accordance with the program and timetable referred to in Attachment 3.

19. Paras. 4 and 5 (iii): Details on agreed service delivery norms at first referral hospitals are provided in Attachment 4.

20. Para. 5 (i) and (ii): Details regarding an agreed schedule of appointment of key headquarters personnel and other key personnel are provided in Attachment 5.

21. Para. 9 (a) (i): It was agreed that the performance indicators provided in Attachment 7 are acceptable.

22. Para. 9 (c): The Association confirmed that the interim work plan provided in Attachment 6 is acceptable.

23. Para. 13: Supervision and Mid-Term Review. As in other social sector projects, during supervision, the implementation arrangements would be reviewed to ensure greater effectiveness in achieving project objectives. To help reduce the risk to financial sustainability in each state, the scope of an ongoing mechanism for monitoring the financial sustainability through a comprehensive mid-term review to evaluate overall state finances, as well as the financial situation of the health sector, was discussed. It was agreed that at the time of the mid-term review, additional measures to achieve financial sustainability of the project, if necessary, would be discussed.

24. Para. 11: Tribal and Backward Areas Development Strategy (Strategy). The agreed Strategy for service delivery in tribal and backward areas is provided in Attachment 9.

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25. Disclosure of Information. The Government Delegation stated that the project Staff Appraisal Report, incorporating the comments discussed during negotiations, does not contain confidential information which would restrict its release to the public, in accordance with the Bank's current policy on Information Disclosure.

26. Further Processing. The Punjab Health Systems Corporation has issued regulations with regard to Board procedures, personnel policies, audits and accounts and service improvements. We have reviewed these notifications submitted to us and found them satifactory. We are still awaiting PHSC's procurement procedures. PHSC has informed us that it will adopt procurement procedures that are consistent with Bank guidelines. Upon receipt of the regulations we will consider that the Condition of Board Presentation has been met. Since the notification establishing the Punjab Health Systems Corporation has been gazetted, the Condition of Board Presentation that was anticipated will not be necessary. Receipt of signed Letters of Health Sector Development Program, that were agreed upon during Negotiations, will be a condition of Board Presentation of the project.

2/2/96

Tawfiq Wahby 2/2/96

ON BEHALF OF INDIA

Mr. Rohit Modi
Deputy Secretary
Department of Economic Affairs
Ministry of Finance

Mrs. Shailaja Chandra
Additional Secretary
Ministry of Health and Family Welfare
Government of India

ON BEHALF OF IDA

Mr. Tawfiq Nawaz
Sr. Economist
Population, Health & Nutrition Resources Division
India Department

Mr. Syed Ahmed
Sr. Counsel, South Asia
Legal Department

Mr. Cecil Peters
Sr. Disbursement Officer
Disbursement Department

ON BEHALF OF KARNATAKA

Mr. B.K. Bhattacharya
Additional Chief Secretary & Principal Secretary
Finance Department
Government of Karnataka

Mr. Gautam Basu
Secretary
Health and Family Welfare
Government of Karnataka

ON BEHALF OF WEST BENGAL

Mr. Asok Gupta
Principal Secretary
Finance
Government of West Bengal

Mrs. Lina Chakrabarti
Principal Secretary
Health and Family Welfare
Government of West Bengal

ON BEHALF OF PUNJAB

Mr. G.P.S. Sahi
Principal Secretary
Health and Family Welfare and
Secretary to Chief Minister
Government of Punjab

Mr. Rajan Kashyap
Principal Secretary
Finance
Government of Punjab

ON BEHALF OF THE PUNJAB HEALTH SYSTEMS CORPORATION

Mr. D.S. Bains
Managing Director
Punjab Health Systems Corporation

CREDIT NUMBER 2833 IN

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Project Agreement

(Second State Health Systems Development Project)

between

INTERNATIONAL DEVELOPMENT ASSOCIATION

and

STATE OF KARNATAKA
STATE OF PUNJAB
STATE OF WEST BENGAL
and
PUNJAB HEALTH SYSTEMS CORPORATION

Dated April 18, 1996

CREDIT NUMBER 2833 IN

PROJECT AGREEMENT

AGREEMENT, dated April 18, 1996, between INTERNATIONAL DEVELOPMENT ASSOCIATION (the Association) and THE STATE OF KARNATAKA, THE STATE OF PUNJAB, THE STATE OF WEST BENGAL, acting by their respective Governors (the Project States) and PUNJAB HEALTH SYSTEMS CORPORATION (PHSC).

WHEREAS (A) the Association has received a letter dated February 13, 1996, February 15, 1996 and February 8, 1996 from the State of Karnataka, the State of Punjab and the State of West Bengal respectively (collectively the Project States), each such letter describing a program of objectives, policies and actions to improve the primary and first referral levels of health care (hereinafter referred to as the Karnataka Health Sector Development Program, the Punjab Health Sector Development Program and the West Bengal Health Sector Development Program, respectively) and declaring the respective Project State's commitment to carry out its Health Sector Development Program;

WHEREAS (B) by the Development Credit Agreement of even date herewith between India, acting by its President (the Borrower) and the Association, the Association has agreed to make available to the Borrower an amount in various currencies equivalent to two hundred thirty five million five hundred thousand Special Drawing Rights (SDR 235,500,000) on the terms and conditions set forth in the Development Credit Agreement, but only on condition that the Project States and PHSC agree to undertake such obligations toward the Association as are set forth in this Agreement;

WHEREAS the Project States and PHSC, in consideration of the Association's entering into the Development Credit Agreement with the Borrower, have agreed to undertake the obligations set forth in this Agreement;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

Definitions

Section 1.01. Unless the context otherwise requires, the several terms defined in the Development Credit Agreement, the Preamble to this Agreement and in the General Conditions (as so defined) have the respective meanings therein set forth.

ARTICLE II

Execution of the Project

Section 2.01. (a) The Project States and PHSC declare their commitment to the objectives of the Project as set forth in Schedule 2 to the Development Credit Agreement, and, to this end, shall carry out the Project with due diligence and efficiency and in conformity with appropriate administrative, financial and health practices, and shall provide, or cause to be provided, promptly as needed, the funds, facilities, services and other resources required for the Project.

(b) Without limitation upon the provisions of paragraph (a) of this Section and except as the Association and the Project States and PHSC shall otherwise agree, the Project States and PHSC shall carry out the Project in accordance with the Implementation Program set forth in Schedule 2 to this Agreement.

(c) Without limitation upon the provision of paragraph (a) of this Section, Punjab shall promptly make available the proceeds of the Credit received from the Borrower to PHSC as part of its grant contribution in accordance with the provisions of the Ordinance.

Section 2.02. Except as the Association shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Credit shall be governed by the provisions of Schedule 3 to this Agreement.

Section 2.03. (a) The Project States and PHSC shall carry out the obligations set forth in Sections 9.03, 9.04, 9.05, 9.06, 9.07 and 9.08 of the General Conditions (relating to insurance, use of goods and services, plans and schedules, records and reports, maintenance and land acquisition, respectively) in respect of the Project Agreement and the Project.

(b) For the purposes of Section 9.07 of the General Conditions, and without limitation thereto, the Project States and PHSC shall:

(i) prepare, on the basis of guidelines acceptable to the Association and furnish to the Association not later than six (6) months after the Closing Date or such later date as may be agreed for this purpose between the Association and the Project States and PHSC, a plan designed to ensure the sustainability of the Project;

(ii) afford the Association a reasonable opportunity to exchange views with the Project States and PHSC on said plan; and

(iii) thereafter, carry out said plan with due diligence and efficiency and in accordance with appropriate practices, taking into account the Association's comments thereon.

Section 2.04. (a) The Project States and PHSC shall, at the request of the Association, exchange views with the Association with regard to the progress of the Project, the performance of its obligations under this and other matters relating to the purposes of the Credit.

(b) The Project States and PHSC shall promptly inform the Association of any condition which interferes or threatens to interfere with the progress of the Project, the accomplishment of the purposes of the Credit, or the performance by each of them of its respective obligations under this Agreement.

ARTICLE III

Financial Covenants

Section 3.01. (a) The Project States and PHSC shall each maintain records and accounts adequate to reflect in accordance with sound accounting practices their operations, resources and expenditures in respect of activities related to their respective parts of the Project, of the departments or agencies responsible for carrying out the Project or any part thereof.

(b) The Project States and PHSC shall:

(i) have records and accounts referred to in paragraph (a) of this Section for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to the Association;

(ii) furnish to the Association as soon as available, but in any case not later than nine months after the end of each such year: (A) certified copies of its financial statements for such year as so audited; and (B) the report of such audit by said auditors, of such scope and in such detail as the Association shall have reasonably requested; and

(iii) furnish to the Association such other information concerning said records, accounts and financial statements as well as the

audit thereof, as the Association shall from time to time reasonably request.

ARTICLE IV

Effective Date; Termination; Cancellation and Suspension

Section 4.01. This Agreement shall come into force and effect on the date upon which the Development Credit Agreement becomes effective.

Section 4.02. (a) This Agreement and all obligations of the Association and of the Project States and PHSC thereunder shall terminate on the earlier of the following two dates:

(i) the date on which the Development Credit Agreement shall terminate in accordance with its terms; or

(ii) the date twenty years after the date of this Agreement.

(b) If the Development Credit Agreement terminates in accordance with its terms before the date specified in paragraph (a) (ii) of this Section, the Association shall promptly notify the Project States and PHSC of this event.

Section 4.03. All the provisions of this Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the General Conditions.

ARTICLE V

Miscellaneous Provisions

Section 5.01. Any notice or request required or permitted to be given or made under this Agreement and any agreement between the parties contemplated by this Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable, telex or radiogram to the party to which it is required or permitted to be given or made at such party's address hereinafter specified or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address: INDEVAS
Washington, D.C.

Telex: 197688 (TRT),
248423 (RCA),
64145 (WUI) or
82987 (FTCC)

For the State of Karnataka:

Chief Secretary to the
Government of Karnataka
Bangalore, India

For the State of Punjab:

Secretary to the
Government of Punjab
Department of Health
Chandigarh, India

For the State of West Bengal:

Chief Secretary to the
Government of West Bengal
Calcutta, India

For Punjab Health Systems Corporation:

Managing Director
Punjab Health Systems Corporation
Chandigarh, India

Section 5.02. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Agreement on behalf of the Project States or PHSC, may be taken or executed by the Chief Secretary in the case of Karnataka and West Bengal, or the Secretary, Department of Health in the case of

Punjab or the Managing Director in the case of PHSC or such other person or persons as the respective Chief Secretary, the Secretary, Department of Health, or the Managing Director shall designate in writing, and the Project States and PHSC shall furnish to the Association sufficient evidence of the authority and the authenticated specimen signature of each such person.

Section 5.03. This Agreement may be executed in several counterparts, each of which shall be an original, and all collectively but one instrument.

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

INTERNATIONAL DEVELOPMENT ASSOCIATION

By /s/ Heinz Vergin

Acting Regional Vice President
South Asia

STATE OF KARNATAKA
STATE OF PUNJAB
STATE OF WEST BENGAL
PUNJAB HEALTH SYSTEMS CORPORATION

By /s/ N. Valluri

Authorized Representative

SCHEDULE 1

Procurement and Consultants' Services

Section I: Procurement of Goods and Works

Part A: General

Goods and works shall be procured in accordance with the provisions of Section I of the "Guidelines for Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 (the Guidelines) and the following provisions of this Section, as applicable.

Part B: International Competitive Bidding

1. Except as otherwise provided in Part C of this Section, goods shall be procured under contracts awarded in accordance with the provisions of Section II of the Guidelines and Paragraph 5 of Appendix 1 thereto.

2. The following provisions shall apply to goods to be procured under contracts awarded in accordance with the provisions of paragraph 1 of this Part B.

(a) Grouping of contracts

To the extent practicable, contracts for goods shall be grouped in bid packages estimated to cost $200,000 equivalent or more each.

(b) Preference for domestically manufactured goods

The provisions of paragraphs 2.54 and 2.55 of the Guidelines and Appendix 2 thereto shall apply to goods manufactured in the territory of the Borrower.

Part C: Other Procurement Procedures

1. Except as provided in paragraphs 2 and 3 hereof, civil works may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

2. Civil works estimated to cost the equivalent of $45,000 or less per contract, up to an aggregate amount not to exceed the equivalent of $18,000,000, may be procured: (i) under lump sum, fixed price contracts awarded on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic

specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to successfully complete the contract; or (ii) through direct contracting in accordance with the provisions of paragraph 3.7 of the Guidelines, and in accordance with procedures acceptable to the Association; or (iii) with the Association's prior agreement, under force account procedures in accordance with the provisions of paragraph 3.8 of the Guidelines, provided, however, that civil works procured under such procedures shall not in the aggregate exceed $10,000,000.

3. Except as provided in paragraph 4 hereof, equipment estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of $12,700,000, may be procured under contracts awarded on the basis of national competitive bidding procedures, in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

4. Equipment estimated to cost the equivalent of $50,000 or less per contract up to an aggregate amount not to exceed the equivalent of: (i) $4,200,000, may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines; and (ii) $12,700,000, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

5. Vehicles estimated to cost not more than the equivalent of $300,000 in the aggregate may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

6. Except as provided in paragraph 7 hereof, medical laboratory supplies estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of: (i) $2,700,000, may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines, and (ii) $400,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

7. Medical laboratory supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $2,300,000 may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

8. Except as provided in paragraphs 9 and 10 hereof, medicines, furniture, Management Information System/Information, Education and Communication

(MIS/IEC) materials and supplies shall be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

9. Medicines estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $1,500,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

10. Medicines, furniture, MIS/IEC materials and other supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $3,700,000, $2,300,000, $1,700,000 and $11,100,000 respectively, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

11. Except as provided in paragraph 12 hereof, maintenance of buildings and vehicles and equipment may be carried out under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

12. Maintenance of buildings, and vehicles and equipment which meet the requirements of paragraphs 3.7 and 3.8 of the Guidelines and costing in the aggregate less than the equivalent of $3,100,000 in the case of buildings and $7,000,000 in the case of vehicles and equipment, may be carried out either: (i) through direct contracting; or (ii) force account, in accordance with the provisions of said paragraphs 3.7 and 3.8 respectively, of the Guidelines, and in accordance with procedures satisfactory to the Association.

Part D: Review by the Association of Procurement Decisions

1. Procurement Planning

Prior to the issuance of any invitations to prequalify for bidding or to bid for contracts, the proposed procurement plan for the Project shall be furnished to the Association for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Guidelines. Procurement of all goods and works shall be undertaken in accordance with such procurement plan as shall have been approved by the Association, and with the provisions of said paragraph 1.

2. Prior Review

With respect to each contract for goods or civil works estimated to cost more than the equivalent of $200,000 or $300,000 respectively, the procedures set forth in paragraphs 2 and 3 of Appendix 1 to the Guidelines shall apply.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Guidelines shall apply.

Section II: Employment of Consultants

1. Consultants' services shall be procured under contracts awarded in accordance with the provisions of the "Guidelines for the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency" published by the Bank in August 1981 (the Consultant Guidelines). For complex, time-based assignments, such contracts shall be based on the standard form of contract for consultants' services issued by the Bank, with such modifications thereto as shall have been agreed by the Association. Where no relevant standard contract documents have been issued by the Bank, other standard forms acceptable to the Bank shall be used.

2. Notwithstanding the provisions of paragraph 1 of this Section, the provisions of the Consultant Guidelines requiring prior Association review or approval of budgets, short lists, selection procedures, letters of invitation, proposals, evaluation reports and contracts, shall not apply to: (a) contracts for the employment of consulting firms estimated to cost less than $100,000 equivalent each; or (b) contracts for the employment of individuals estimated to cost less than $50,000 equivalent each. However, said exceptions to prior Association review shall not apply to: (a) the terms of reference for such contracts; (b) single-source selection of consulting firms; (c) assignments of a critical nature, as reasonably determined by the Association; (d) amendments to contracts for the employment of consulting firms raising the contract value to $100,000 equivalent or above; or (e) amendments to contracts for the employment of individual consultants raising the contract value to $50,000 equivalent or above.

SCHEDULE 2

Implementation Program

1. Each Project State shall:

(a) ensure that within the allocations for the health sector in each Fiscal Year during the implementation of the Project the share of resources for Primary and Secondary Levels of Health Services shall be increased in each such Fiscal Year until FY 02; and

(b) allocate in each Fiscal Year during the implementation of the Project adequate resources for drugs, essential supplies, and maintenance of equipment and buildings at facilities providing First Referral Level Health Services in accordance with norms agreed to with the Association.

2. Each Project State shall maintain its Strategic Planning Cell with adequate staff, resources and terms of reference acceptable to the Association.

3. Each Project State and PHSC shall levy user-charges in district and sub-divisional hospitals in accordance with a program and time schedule acceptable to the Association, such program to focus, inter alia, on: (a) permitting the revenues collected from user-charges to be retained at the hospital level; (b) implementing user charges in a phased manner after improvements in the quality of basic services and infrastructure development have been completed; (c) developing and applying criteria for exempting the poor from user charges; and (d) strengthening appropriate management and collection arrangements for maintaining existing user charges, including the establishment and maintenance of District Health Committees in Karnataka and West Bengal for collecting such charges.

4. Punjab and PHSC shall, as the case may be, take all such measures as may be necessary or required: (i) to enable PHSC to carry out its part of the Project; and (ii) to ensure that PHSC undertakes health care activities at the secondary level in accordance with service delivery norms acceptable to the Association, and in carrying out other heath care activities shall ensure that its ability to perform its obligations under this Agreement as determined, inter alia, from a review of the progress achieved in implementing the annual work plans and in meeting the development and performance indicators referred to in paragraph 9 hereof is not adversely affected.

5. For purposes of enhancing the quality of health care services under the Project, each Project State and PHSC shall: (i) maintain the key headquarters personnel appointed for purposes of implementing the Project; (ii) appoint and thereafter maintain key additional personnel with adequate qualification and experience in accordance with a

schedule of appointment agreed with the Association; (iii) adopt, no later than six months after completion of the physical improvements in any hospital under the Project, and thereafter implement, staffing and technical norms acceptable to the Association; and (iv) provide on an annual basis adequate funds, satisfactory to the Association, for the maintenance of previously existing equipment in health care facilities supported under the Project.

6. For purposes of carrying out Part B.3 of the Project as set forth in Schedule 2 to the Development Credit Agreement, each Project State and PHSC shall, no later than December 31, 1996: (i) issue appropriate directives to hospitals to strengthen the management of the referral mechanism between the Primary, Secondary, and Tertiary Level Health Services; (ii) establish and thereafter maintain and implement appropriate referral protocols and clinical management protocols; and (iii) establish and thereafter maintain and implement an appropriate incentive system for patients who use the system.

7. Karnataka and West Bengal shall maintain the District Health Committees with such staff, resources, powers, functions and responsibilities so as to enable them to facilitate, inter alia, the functioning of the referral mechanism, the collection and distribution of user charges, maintenance of equipment, waste management, training of technical staff, quality assurance, surveillance of communicable diseases and the monitoring and supervision of their respective activities to be carried out under the Project.

8. Each Project State shall take all such measures as may be necessary or required in order to provide, and thereafter maintain, authority to DOHFW in the case of Karnataka and West Bengal and to PHSC in the case of Punjab for managing the activities to be carried out by them under the Project, including construction and maintenance activities.

9. Each Project State and PHSC shall:

(a) by April 30 of each year during the implementation of the Project beginning with April 30, 1997:

(i) provide to the Association an annual work plan, acceptable to the Association, setting forth the respective activities under the Project to be carried out during the prevailing Fiscal Year including the budgetary allocations to be made available for such purpose, as well as the performance benchmarks and development objectives to be achieved and drawn from the overall framework agreed to be achieved under the Project including, inter alia, hospital activity indicators, hospital

efficiency indicators, and quality, access and effectiveness indicators to be measured in accordance with methodology satisfactory to the Association; and

(ii) review with the Association the progress achieved in implementing the Project under the annual work plan for the previous Fiscal Year and the interim plan referred to in sub-paragraph (c) below of this paragraph (9) with special reference to the achievement of the performance benchmarks and development objectives incorporated therein.

(b) implement each annual work plan in a manner satisfactory to the Association, with the goal, inter alia, of meeting the performance benchmarks and the development objectives set forth therein; and

(c) implement the Project until the formulation of the first annual work plan in accordance with an interim plan agreed with the Association.

10. Each Project State shall ensure that: (i) its respective incremental budgetary allocations under the Project for the Primary, and First Referral Level Health Services for each Fiscal Year during the implementation of the Project shall be fully additional to the allocations made in FY 95; and (ii) the budgetary allocations for the annual work plans and the interim plan referred to in paragraph 9 hereof are made available on a timely basis sufficient to meet the resource requirements under such plans.

11. Karnataka and West Bengal shall implement the Project in tribal areas (as designated by each such Project State) and West Bengal shall implement the Project in the Sunderbans Area in accordance with the principles, objectives and policies of the Tribal and Backward Area Development Strategy with emphasis on: (a) strengthening linkages between Primary, and Secondary Level Health Services; (b) providing an incentive package to doctors and other medical staff to work in the tribal areas of Karnataka and in the Sunderbans Area of West Bengal; (c) increasing the appropriate utilization of the medical system by the Scheduled Tribe population; (d) reducing the cost to Scheduled Tribes of utilizing such system in Karnataka; and (e) increasing the number of beds at sub-divisional and community hospitals.

12. PHSC shall carry out Part A.2 (ix) of the Project in accordance with procedures and arrangements satisfactory to the Association.

13. The Project States and PHSC shall, with the participation of the Borrower and the Association: (a) jointly carry out by June 30, 1999 a mid-term review of the Project, including on management aspects and financial sustainability, under terms of reference

satisfactory to the Association; and (b) carry out the recommendations of such review in a manner satisfactory to the Association.

INDIA
STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II
AGREED MINUTES OF NEGOTIATIONS

1. Negotiations for a proposed Credit of SDR 235.5 million (the Credit) for a State Health Systems Development Project II (the Project) were held between the representatives of India (the Borrower), the States of Karnataka, Punjab and West Bengal (the Project States), the Punjab Health Systems Corporation (PHSC) (the Indian Delegation) and the International Development Association (IDA) (the IDA Delegation) at World Bank Headquarters in Washington D.C., from January 29 to February 2, 1996. The representatives of the Indian Delegation and the IDA Delegation agreed on the draft Project Agreement and the draft Development Credit Agreement (DCA), versions dated February 2, 1996.

Actions Taken Prior to Negotiations

2. As a condition of Negotiations, the following actions have been taken:

(i) a draft letter of Health Sector Development Program has been furnished by each state;

(ii) relevant state Government clearances, as well as clearance from the Planning Commission, GOI, were obtained;

(iii) Strategic Planning Cells have been set up within the DOHFW in Karnataka, Punjab and West Bengal;

(iv) a mechanism for ensuring that the existing levels of user charges are implemented more rigorously has been approved, an agreed mechanism for exempting the poor from user fees is in place, and District Health Committees in Karnataka and West Bengal have been approved/established;

(v) an Ordinance has been passed by the Government of Punjab, establishing the PHSC;

(vi) regulations relating to Board procedures, personnel policies, audits and accounts, and user charges have been drafted and provided by PHSC to IDA for review;

(vii) in Karnataka, the Project Governing Board, Steering Committee and Engineering Wing have been established, and key staff have been approved or hired;

(viii) in Punjab, key staff, including the Managing Director of the PHSC, have been appointed;

(ix) in West Bengal, key staff, including Project Director, have been hired; and

(x) in Karnataka and West Bengal, Government Orders have been issued, providing authority to DOHFW to manage essential operational activities including civil works construction and maintenance activities.

Agreements and Understandings Reached

3. The following elaborates the agreements reached relating to the legal documents and other understandings.

DEVELOPMENT CREDIT AGREEMENT

4. Article II, Section 2.01 Credit Amount. It was agreed to increase the credit amount from US$342.2 million equivalent to US$350.0 million equivalent. The agreed amount would be equal to SDR 235.5 million. The additional amount of US$7.8 million equivalent would finance medicines, and Management Information Systems (MIS) supplies and Information, Education and Communications (IEC) materials in West Bengal (US$2.8 million equivalent) and Punjab (US$ 5.0 million equivalent).

5. Article II, Section 2.02 Closing Date. It was agreed that the Closing Date would be brought forward from June 30, 2002 to March 31, 2002.

6. Article III, Section 3.01 (b) Flow of Funds from GOI. GOI confirmed that, throughout the life of the project, it would follow the standard procedure for releasing about three months anticipated project expenditures in advance to the Project States to cover expenditures under the project, subject to periodic adjustment of the advances. Upon receipt, the Project States shall release such funds together with their own quarterly allocations to agencies responsible for carrying out the project, to be used exclusively for expenditures eligible under the project. In Punjab, upon receipt, such funds will be promptly transferred to PHSC as required for timely project implementation.

7. Article V, Section 5.01 (e): Remedies of the Association. After discussion it was agreed to keep this remedy related to the Health Sector Development Program. The Indian Delegation noted that the Letter of Health Sector Development Program describes a program of policies and actions and felt that the content of the Letter was not tantamount to a mutually agreed obligation on the part of the Borrower. It was further stated that the commitment by the Project States to the Letter of Health Sector Development Program should not therefore be a monitorable activity on which remedies could be invoked. The IDA Delegation responded that the project was an investment operation with substantial policy content, and this provision formed the basis for remedial action in case an event occurs that makes it improbable that the Health Sector Development Program for each Project State or a significant part thereof will be carried out. The IDA Delegation further explained that the commitment of the Project States to carrying out such a program is an important part of IDA support for the project. It was, therefore, deemed necessary to retain this covenant.

8. Schedule 1: Withdrawal of the Proceeds of the Credit. The Indian Delegation highlighted the fact that health is a state subject, and this project covers three states. As such, it is important that any state be aware of how it has been performing. In case the share of projected IDA allocations to any particular state has to be changed, it should be done through a transparent process where each state knows what is happening to its share. Flexibility cannot be at the expense of transparency. This necessitates that information regarding project implementation and disbursement is available for each implementing state. Hence the information in Schedule 1 should be disaggregated by Project States. The IDA Delegation pointed out that this would provide a piecemeal solution to monitoring disbursements by GOI and would reduce flexibility with regard to categories of disbursements across states. Nonetheless, at the insistence of the Indian Delegation,

it was agreed that Schedule 1 would be disaggregated by Project States. It was noted that this format of showing Schedule 1 by Project State would not set a precedent for other projects in the future.

9. Schedule 1: Recurrent Cost Financing. The recurrent cost financing issue was discussed in detail. It was agreed not to increase the level of recurrent cost financing as well as to retain the 40% level of recurrent cost financing by the Association for the final year of the project. The cut-off dates for the declining levels of financing were changed from the end of the fiscal year to the end of the calendar year.

Schedule 2: Description of the Project

10. Part A: Management Development and Institutional Strengthening. Under this component, a provision has been included to support the PHSC in the promotion of health care activities in Punjab through private and voluntary organizations. A corresponding reference has been made in Schedule 2: Implementation Program of the Project Agreement.

11. Schedule 3: Special Account. It was agreed to increase the Special Account from US$15 million to US$ 17 million equivalent.

PROJECT AGREEMENT

12. Article III; Section 3.01 (b) (i) Financial Covenants. It was agreed that the Comptroller and Auditor General of India would be the independent auditor of the project records and accounts of the Governments of Karnataka, Punjab and West Bengal for the purposes of Section 4.01 of the Development Credit Agreement and Section 3.01 of the Project Agreement. In addition, in Punjab, an independent commercial auditor would audit the accounts of the Punjab Health Systems Corporation. It was agreed that the Project States would make available to the auditors the SAR, Project Agreement and the Development Credit Agreement. [The relevant information would be provided by the Project Management in each state to the auditors.]

Schedule 1: Procurement and Consultant Services

13. Section 1, Part C, paras. 2 & 3 Other Procurement Procedures. IDA reviewed procurement documents and agreed that at this time no further requirements on procurement aspects prior to Board presentation are anticipated. It was recalled, as in all previous projects of the last few years, that for all contracts to be financed from the Credit under NCB procedures:

(a) no special preference will be accorded to domestic bidders when competing with foreign bidders, or given to state owned enterprises, small scale enterprises, or enterprises from any given state;

(b) except with the prior concurrence of the Association, there will be no negotiation of price with bidders, even with the lowest evaluated bidder;

(c) except with the prior approval of the Association prior to bidding, the system of rejecting bids outside a predetermined margin or "bracket" of prices will not be used; and

(d) rate contracts entered into by the Borrower's Directorate General of Supplies and

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Schedule 2: Description of the Project

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PROJECT AGREEMENT

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(b) except with the prior concurrence of the Association, there will be no negotiation of price with bidders, even with the lowest evaluated bidder;

(c) except with the prior approval of the Association prior to bidding, the system of rejecting bids outside a predetermined margin or "bracket" of prices will not be used; and

(d) rate contracts entered into by the Borrower's Directorate General of Supplies and

Disposal (DGS&D) will not be acceptable as a substitute for NCB procedures. Such contracts will be acceptable for any procurement under local shopping procedures. For international shopping procedures, quotations should also be invited from one or more foreign suppliers for comparisons with DGS&D rate contracts.

14. Section I, Part C, para 2 (Other Procurement Procedures). It was agreed that, for "Other Categories of Procurement", the allotted amounts would be pro-rated between the Project States on the basis of the respective sizes of the Credit amounts.

Schedule 2: Implementation Program.

15. Para. 1 (a): The covenant on maintaining the share of the health sector allocation to the overall budget was moved to the Letter of Health Sector Development Program, with some minor modifications relevant to each state as suggested by the Indian Delegation.

16. Para. 1 (c): Details regarding norms acceptable to the Association for essential drugs and supplies, and maintenance of equipment and buildings at first referral level hospitals are provided in Attachments 1 and 2.

17. Para. 2: The Association confirms that the terms of reference of the Strategic Planning Cell, provided in the Letter of Health Sector Development Program, are acceptable.

18. Para. 3: The parties agreed that user charges shall be levied in accordance with the program and timetable referred to in Attachment 3.

19. Paras. 4 and 5 (iii): Details on agreed service delivery norms at first referral hospitals are provided in Attachment 4.

20. Para. 5 (i) and (ii): Details regarding an agreed schedule of appointment of key headquarters personnel and other key personnel are provided in Attachment 5.

21. Para. 9 (a) (i): It was agreed that the performance indicators provided in Attachment 7 are acceptable.

22. Para. 9 (c): The Association confirmed that the interim work plan provided in Attachment 6 is acceptable.

23. Para. 13: Supervision and Mid-Term Review. As in other social sector projects, during supervision, the implementation arrangements would be reviewed to ensure greater effectiveness in achieving project objectives. To help reduce the risk to financial sustainability in each state, the scope of an ongoing mechanism for monitoring the financial sustainability through a comprehensive mid-term review to evaluate overall state finances, as well as the financial situation of the health sector, was discussed. It was agreed that at the time of the mid-term review, additional measures to achieve financial sustainability of the project, if necessary, would be discussed.

24. Para. 11: Tribal and Backward Areas Development Strategy (Strategy). The agreed Strategy for service delivery in tribal and backward areas is provided in Attachment 9.

25. Disclosure of Information. The Government Delegation stated that the project Staff Appraisal Report, incorporating the comments discussed during negotiations, does not contain confidential information which would restrict its release to the public, in accordance with the Bank's current policy on Information Disclosure.

26. Further Processing. The Punjab Health Systems Corporation has issued regulations with regard to Board procedures, personnel policies, audits and accounts and service improvements. We have reviewed these notifications submitted to us and found them satifactory. We are still awaiting PHSC's procurement procedures. PHSC has informed us that it will adopt procurement procedures that are consistent with Bank guidelines. Upon receipt of the regulations we will consider that the Condition of Board Presentation has been met. Since the notification establishing the Punjab Health Systems Corporation has been gazetted, the Condition of Board Presentation that was anticipated will not be necessary. Receipt of signed Letters of Health Sector Development Program, that were agreed upon during Negotiations, will be a condition of Board Presentation of the project.

2-2-96

2/2/96

ON BEHALF OF INDIA

Mr. Rohit Modi
Deputy Secretary
Department of Economic Affairs
Ministry of Finance

Mrs. Shailaja Chandra
Additional Secretary
Ministry of Health and Family Welfare
Government of India

ON BEHALF OF IDA

Mr. Tawhid Nawaz
Sr. Economist
Population & Human Resources Divisio
India Department

Mr. Syed Ahmed
Sr. Counsel, South Asia
Legal Department

Mr. Cecil Perera
Sr. Disbursement Officer
Disbursement Department

ON BEHALF OF KARNATAKA

Mr. B.K. Bhattacharya
Additional Chief Secretary & Principal Secretary
Finance Department
Government of Karnataka

Mr. Gautam Basu
Secretary
Health and Family Welfare
Government of Karnataka

ON BEHALF OF WEST BENGAL

Mr. Asok Gupta
Principal Secretary
Finance
Government of West Bengal

Mrs. Lina Chakrabarti
Principal Secretary
Health and Family Welfare
Government of West Bengal

ON BEHALF OF PUNJAB

Mr. G.P.S. Sahi
Principal Secretary
Health and Family Welfare and
Secretary to Chief Minister
Government of Punjab

Mr. Rajan Kashyap
Principal Secretary
Finance
Government of Punjab

ON BEHALF OF THE PUNJAB HEALTH SYSTEMS CORPORATION

Mr. D.S. Bains
Managing Director
Punjab Health Systems Corporation

GOV - 2.

The World Bank
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

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August 9, 1995

Mr. M.S. Dayal
Secretary Health
Ministry of Health and Family Welfare
Room 345, A Wing, Nirman Bhawan
New Delhi 110001, INDIA

Dear Mr. Dayal:

INDIA: Proposed State Health Systems Development Project II

We would like to express our appreciation for the cooperation extended by your Government to the pre-appraisal mission that visited India in July-August, 1995. The ample collaboration, courtesy and assistance provided by your Ministry and the Secretaries of Health and Family Welfare in Karnataka, Punjab and West Bengal, have enabled the mission to undertake its task successfully.

This letter confirms the general content and recommendations of the wrap-up meeting held in Delhi on August 4, 1995 with Mr. Indarjit Chaudhuri, Additional Secretary, MOHFW. The aide-memoire was discussed with Mr. I. Chaudhuri and with representatives from the Governments of Karnataka, West Bengal and Punjab and the Department of Economic Affairs, GOI. A final version of the aide-memoire for West Bengal, Karnataka and Punjab are attached. The project would improve efficiency in the allocation of health resources through institutional and policy development and improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level in the states of Karnataka, Punjab and West Bengal.

We appreciate your continued involvement in the project and the dedication of Mr. I. Chaudhuri, and the Secretaries of Health and Family Welfare of the Governments of Karnataka, Punjab and West Bengal and their staff in the preparation of the project. We are very pleased to note the excellent collaboration between the three states in the preparation of the proposed project, particularly with regard to state level health policy issues. These will greatly contribute towards attaining the objectives that the proposed project is seeking to achieve.

We would like to reiterate the importance of following up on the actions listed in the aide-memoire of the mission in each state in order to facilitate an IDA appraisal mission in the coming months. In particular, the three states need to continue to make the substantial progress they are making with regard to revising project costs in line with discussions with the mission, completing site and facilities surveys, finalizing the beneficiary assessment studies, completing

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the review of their workforce requirements, elaborating the system of referral for health care services, completing the existing drug list on the basis of services to be provided under the proposed project and finalizing procurement packages and implementation schedules. In addition, Punjab needs to put in place a viable management structure to manage and implement the project prior to the appraisal mission in early October.

As is customary we are copying this letter to Mrs. Rani Jadhav, Joint Secretary in the Department of Economic Affairs in MOF, Mr. Gautam Basu, Secretary Health and Family Welfare of the Government of Karnataka, Mr. G.P.S. Sahi, Principal Secretary Health and Family Welfare of the Government of Punjab and Mrs. Lina Chakravorti, Principal Secretary Health and Family Welfare of Government of West Bengal.

Sincerely,

Richard Skolnik

Richard Skolnik
Chief
Population and Human Resources Division
South Asia Country Department II
(Bhutan, India, Nepal)

Enclosure: Aide-Memoire

cc: Mr. Indarjit Chaudhuri, Additional Secretary, MOHFW
Mrs. Rani Jadhav, Joint Secretary, Department of Economic Affairs, MOF
Mr. Gautam Basu, Secretary Health and Family Welfare, Government of Karnataka
Mr. G.P.S. Sahi, Principal Secretary Health and Family Welfare, Government of Punjab
Mrs. Lina Chakravorti, Principal Secretary Health and Family Welfare, Government of West Bengal

INDIA

PROPOSED STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II WEST BENGAL

INTERNATIONAL DEVELOPMENT ASSOCIATION

AIDE-MEMOIRE (AUGUST 1995)

1. An International Development Association (IDA) team consisting of Messrs./Mme. T. Nawaz (mission leader), S. Rao-Seshadri, K. Hinchliffe and D. Porter visited West Bengal between July 31 and August 3, 1995 to review preparation and pre-appraise the proposed State Health Systems Development Project II in West Bengal. The mission would like to express its gratitude to the Chief Minister of West Bengal, Mr. Jyoti Basu, the Health Minister, Mr. Prasanta Sur, the Finance Minister, Mr Asim Dasgupta and the Chief Secretary, Mr. N. Krishnamurthi for meeting the team to discuss project development activities. The mission had detailed discussions with Mr. Asim Dasgupta and the Principal Secretary Finance, Mr Ashok Gupta, on key issues regarding the proposed project. The mission would like to thank Mrs. Lina Chakravorti, Principal Secretary, Health and Family Welfare Department, Government of West Bengal, who arranged all meetings and discussions with the mission from her hospital bed. The kind cooperation and hospitality of her colleagues in the Health and Family Welfare Department is gratefully acknowledged. A review meeting on the aide-memoire was held with Mrs. Lina Chakravorti and members of the project core team on August 3, 1995 in Calcutta.

2. This aide-memoire records the overall progress made in the preparation of the proposed project, summarizes the main findings and recommendations of the pre-appraisal mission and the understandings reached with the Government of West Bengal on a proposed plan to appraise the project in October, 1995.

PROJECT OBJECTIVES AND COMPONENTS

3. Objectives: The Government and the Bank reconfirmed that the main objectives of the proposed project remain : (i) to improve efficiency in the allocation of health resources through policy and institutional development; and (ii) to improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level. The achievement of these objectives would contribute to improving the health status of the people of West Bengal, especially the poor and the underserved, by reducing mortality, morbidity and disability.

4. Components: It was also reaffirmed that the project would have the following major areas of investment: (i) Management Development and Institutional Strengthening including (a) improving the institutional framework for policy development; (b) strengthening the management and implementation capacity of institutions including structures, procedures,

management information systems, culture of service delivery, resources and training; (c) developing surveillance capacity for the major communicable diseases; and (ii) Improving Service Quality, Access and Effectiveness by: (a) extending/renovating rural hospitals, sub-district and district hospitals, and district-based state general hospitals; (b) upgrading their clinical effectiveness; (c) improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels; (d) improving basic health services in underdeveloped and remote areas, including the Sunderbans.

POLICY FRAMEWORK

5. Discussions between the Bank and the Government on key policy issues continued to progress very satisfactorily. The Finance Minister informed the mission that the Government is committed to a policy package of health sector reforms reflecting key sectoral development issues for the primary and secondary levels of health care. These include the need to: (i) increase budgetary allocations to the health sector; (ii) allocate most of the incremental funds for the health sector to the primary and secondary levels of care; (iii) safeguard the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential medical materials and maintenance of equipment and infrastructure; (iv) set up a Strategic Planning Cell under the Health Secretary to undertake analyses of health sector issues; (v) strengthen the Health Department's role and provide it with autonomy in managing essential operational activities such as civil works and construction and maintenance activities in collaboration with local government; (vi) contract out selected services, especially supporting services; (vii) enhance linkages in health care delivery with the private and voluntary sectors; and (viii) implement service improvements and user charges. The Finance Minister stated that the Government was committed to undertaking specific actions on key issues noted in a draft letter of Health Sector Development Policy. The draft letter, prepared by the Government and addressing the important policy issues noted above, was discussed with the Health Secretary and her colleagues. This will be finalized by the time of the appraisal mission.

6. User Charges. A Government Order dated February, 1995 is currently under review. It was agreed that user fees for services such as paying beds, cabins, charges for diagnostics and OPD registration fees would be more widely implemented based on the recommendations of this review. It was agreed that 30% of beds at district, state general and sub-divisional hospitals would be designated as paying beds. Methods of identifying and targeting the poor for exemptions were fully discussed. The Government stated that the JRY poverty criterion set by the Planning Commission, GOI, which applies only to rural areas, would not cover large sections of the population due to extensive urbanization in the state. It was therefore agreed that the current system of providing exemption on the basis of an 'Indigent Certificate' from the local elected representative, given to families with an income below Rs. 1,500 per month, would be a viable system. It was also agreed that emphasis would be on implementing the system more rigorously. The Government, through the Finance Department, currently reallocates 50% of funds collected through user charges to the collecting institution. It was agreed that revenue collected through user charges at district,

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state general, sub-divisional and rural hospitals would not go back to the state treasury but would be retained at the district level, to be reallocated by district level authorities amongst hospitals in the district based on both need and level of revenue collection.

7. Linkages with the Private Sector. It was agreed that the Government will contract out services to the private sector, such as laundry, cleaning services, and catering wherever feasible and explore opportunities for contracting out specialist and diagnostic services. The Government proposes to appoint doctors at rural health facilities on a contract basis to overcome medical staff shortages in rural areas. It was agreed that the Government would work collaboratively with both the private and voluntary sectors which may have a comparative advantage in improving access to health care services for disadvantaged groups in remote areas. The Health Secretary informed the mission that the West Bengal Clinical Establishment Act provides accreditation and registration of medical personnel and private health care facilities.

8. Gender Issues. In addition to providing women with improved access to better quality hospital services, particularly for essential obstetrics care, the project would strengthen reproductive health services at all levels, particularly in underdeveloped and inaccessible areas. The project proposal includes a strong IEC component to sensitize the public to women's health issues generally, and promote the 'life-cycle' approach to women's health.

9. Linkages with Other Health Sector Projects. The proposed project complements and consolidates the investments made by on-going Population and Health projects in West Bengal supported by the Bank, and also the current and prospective health projects assisted by bilateral donors such as ODA and KFW. It provides policy and implementation co-ordination with other health and family welfare projects. The proposed project would also fill some of the input gaps in primary health care in the Sunderbans.

PROJECT PREPARATION PROGRESS AND RECOMMENDATIONS

10. Overall Progress. Substantial progress has been made in project preparation activities since the last mission. The revised project proposal (July, 1995) has incorporated the recommendations of the last aide-memoire. An important recommendation of the mission was with regard to staff quarters. The mission suggested that the number of new staff quarters proposed was on the high side and it was agreed that the number of new quarters would be limited to those in remote areas. Elsewhere, the program would mainly be one of renovating existing staff quarters. Other components of the project have been very well developed. However, project costing needs to be fine-tuned on the basis of extensive discussions with this mission.

11. Project Administration and Management. The project management arrangements, additional staffing requirements and functional responsibilities have been very well documented in the revised proposal. The Finance Minister informed the mission that because of the scope of this project, the Government was proposing to strengthen the Health

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Department's role by providing it with autonomy in managing essential operational activities such as civil works and construction and maintenance activities in collaboration with local Government. The functions of the Strategic Planning Cell were clarified and agreed upon. It was also agreed that the Strategic Planning Cell would report to the Health Secretary.

12. Service Norms. A project preparation workshop involving key stakeholders in project design and organized by the Department of Health and Family Welfare in May, 1995 defined the roles and functions of the various types of health facilities and referral hospitals. The findings of the workshop have been issued by the Department of Health and Family Welfare and were used for revising the project. The mission reviewed these norms in detail and agreed with the Government with regard to some minor modifications.

13. Site Surveys and Preparation of Physical Works. An extensive survey of all health facilities at the secondary level is well underway. The mission reviewed some of the survey documents and found them satisfactory. Given the progress to date, it is expected that the survey will be completed, and the reports issued by September, 1995. The Government has also prepared the preliminary designs of 10 hospitals which are slated for upgradation and they were discussed with the mission.

14. Analysis of Equipment Inventories. Information concerning the nature and state of the current inventory has been gathered from each facility that will receive inputs under the proposed project. The core team needs to analyze the inventory returns and to complete the computerization of this information. Based on the clinical service norms, the mission, jointly with the Government, has reviewed and refined the equipment lists for various types of hospitals.

15. Equipment Management and Maintenance. The Department of Health has elaborated an action plan and the specific mechanisms to ensure state-wide coverage not only of project investments but all current equipment and plant used by its health services. This work would be contracted to a Government company, Electro-Medical and Allied Industries Ltd., which, along with the facility survey team(s), would assess local capability to provide technical support for hospital equipment maintenance, and explore the possibility of using private contractors. Further analysis of the maintenance and repair coverage plan and the detailed proposals for in-house manpower and workshop facilities should be undertaken for discussion with the appraisal mission.

16. Workforce. Based on the service norms agreed upon, the proposed levels of staffing for medical and nursing cadres have been reviewed during the mission. In addition, a package of incentives is being developed to improve the recruitment, deployment and retention of staff in areas where difficulties of posting and retaining staff are being experienced. Where it is difficult to retain staff in remote areas, the Government is proposing to hire medical professionals on a contractual basis.

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17. Referral System. The project proposal has laid out a good plan for strengthening the referral mechanism between the different tiers of the health system. The plan was reviewed, including the proposed incentives to encourage patients to use the referral mechanism. Details regarding the issuing of administrative guidelines and training requirements are being developed.

18. Clinical Skill, and Management and Other Special Training. A training plan for strengthening clinical skills has been developed by the Government. The mission has reviewed this plan and suggested some minor additions. It was agreed that a workshop would be held prior to appraisal in order to determine training needs, develop training curricula and modules, and formulate an implementation schedule. Some of the training would be coordinated by the district hospitals. Training in management and other technical skills has been discussed with the Government covering personnel policies, finance issues, procurement policies, information systems, asset management and maintenance, IEC, HMIS, and surveillance systems. The Government has identified institutions where such training will be conducted.

19. Plan for Developing Surveillance Capacity for Major Communicable Diseases. A development plan for a state-wide system for major communicable disease surveillance, included in the proposal, has been discussed with the mission. Based on the burden of disease in the state, sixteen major communicable diseases have been identified by the Government. These and other diseases will be brought under the surveillance system and channels have been defined through which information will flow. Parallel efforts will be made to improve reporting by private medical practitioners. The surveillance system will be linked to HMIS. A link with the Strategic Planning Cell needs to be established; community participation in the surveillance network needs to be more clearly elaborated. These issues will be further discussed with the appraisal mission.

20. Health Management Information System (HMIS). The mission discussed the concept for HMIS presented in the proposal and recommended that computer-based MIS is provided at the district level linked by modem to the computer system to be provided at the district health surveillance office. A workshop will be held to work out the content of the form to be used. The HMIS system will also establish a link with the referral mechanism.

21. Detailed Project Costs. Project costs have been revised and need further revision incorporating the changes discussed with the mission. It was agreed that the detailed revised cost tables will be sent to the Bank by August 20, 1995. After revision, preliminary total project costs, including contingencies, are expected to be approximately Rs. 690 crores or about US$172 million. Recurrent costs are expected to be about Rs.45 crores annually at project completion. The Finance Minister and the Principal Secretary, Finance informed the mission that the Government will have no problem in bearing this additional recurrent cost burden.

22. Implementation Schedule and Procurement Plan. An implementation schedule of the civil works program has been prepared by the Government and reviewed by the mission. Procurement packages for civil works are being finalized. The implementation schedules of the equipment and software components need to be finalized as well. The Government has agreed to provide these by August 20, 1995. Members of the West Bengal core team visited the Bank's NDO and collected and discussed relevant Bank guidelines on procurement. Procurement packages will be discussed with the appraisal mission.

23. Land Acquisition. Because the proposed project involves renovation and extension of existing facilities, it is anticipated that the need for land acquisition will be minimal. The Government has provided assurance that none of the sites where hospitals will be upgraded will entail involuntary resettlement of any persons.

24. Drug List. The Government provided a drug list to the mission, which is being reviewed. The mission suggested that the technical specifications of the elements common with the Andhra Pradesh drug list be incorporated by West Bengal since the Andhra Pradesh list had already been cleared by the Bank.

25. Plan for Disposal of Medical Waste. The proposal for the disposal of medical waste has been reviewed by the mission. It has been clarified that the plan for medical waste disposal should include all hospitals, including tertiary hospitals not included in the project. Training modules will need to be developed for staff at different health facilities responsible for medical waste disposal. Arrangements for the temporary storage of waste prior to disposal need to be developed and the technical specifications of incinerators and pyrolators, including capacity, at various facilities need to be finalized.

26. Tribal Plan. The mission discussed the need to develop a tribal plan for the project demonstrating how the project activities will benefit tribal peoples. As agreed previously, the Tribal Plan, integral to specified project components, is being developed based on the findings of the 'beneficiary/social assessment' study discussed below and other available information.

27. Beneficiary/Social Assessment and the Private Sector Studies. The core team and ORG researchers responsible for these studies have met on a regular basis to discuss the main findings and use them to fine-tune project design. A draft report of the studies has been provided to the mission. The document will be finalized based on comments to be provided by the mission.

28. Performance Indicators. A list of performance indicators was discussed and agreed upon. The core team will fine-tune this list, to be reviewed with the appraisal mission.

29. Next Steps. Given the excellent progress made by the Government in preparing the project, it is expected that an appraisal mission could be scheduled for October, 1995, on the understanding that the remaining activities recommended by this mission are completed.

INDIA

PROPOSED STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II (PUNJAB)
INTERNATIONAL DEVELOPMENT ASSOCIATION

AIDE-MEMOIRE (JULY 1995)

1. An International Development Association (IDA) team consisting of Messrs./Mme. T. Nawaz (mission leader), S. Rao-Seshadri, K. Hinchliffe and D. Porter visited Punjab between July 24-26, 1995 to review preparation and pre-appraise the proposal for the Health Systems Development Project II in Punjab. The mission would like to express its gratitude to the Chief Minister of Punjab, Mr. S. Beant Singh, and the Health Minister of Punjab, Mr. H.S. Brar, for meeting the team to discuss key issues regarding the project. The mission also met with Mr. A.S. Pooni, Chief Secretary, Mr. R. Kashyap, Principal Secretary Finance, Mrs P. Khetrapal Singh, Secretary Finance and Accounts, and Mr A. K. Dubey, Secretary Planning, Government of Punjab. The mission would like to thank Mr G.P.S. Sahi, Principal Secretary Health and Family Welfare Department and his colleagues for their cooperation and hospitality. A review meeting on the issues covered by this aide memoire was held with Mr Sahi and his staff on July 26, 1995 in Chandigarh.

2. This aide-memoire records the overall progress made in the preparation of the proposed project, summarizes the main findings and recommendations of the pre-appraisal mission, and the understandings reached with the Government of Punjab on a proposed plan to appraise the project in October 1995.

PROJECT OBJECTIVES AND COMPONENTS

3. Objectives: The Government and the Bank reconfirmed that the main objectives of the project would be to: (i) improve efficiency in the allocation of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level. The achievement of these objectives would contribute to improving the health status of the people of Punjab, especially the poor and the underserved, by reducing mortality, morbidity and disability.

4. Components: It was reaffirmed that the project would have the following major areas of investment: (i) Management Development and Institutional Strengthening including (a) improving the institutional framework for policy development; (b) strengthening the management and implementation capacity of institutions including structures, procedures, management information systems, culture of service delivery, resources and training; (c) developing surveillance capacity for the major communicable diseases; and (ii) Improving Service Quality, Access and Effectiveness by: (a) extending/renovating community, area and

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district hospitals; (b) upgrading their clinical effectiveness; and (c) improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels.

POLICY FRAMEWORK

5. The discussions between the Government and the Bank on key policy issues continued to progress satisfactorily. The Government reiterated its commitment to implement a policy package of health sector reforms that will include key sectoral development issues for the primary and secondary levels of health care. These include the need to: (i) increase budgetary allocations to the health sector; (ii) allocate most of the incremental funds for the health sector to the primary and secondary levels of care; (iii) safeguard the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential medical materials and maintenance of equipment and infrastructure; (iv) set up a Strategic Planning Cell under the Health Secretary to undertake analyses of health sector issues; (v) contract out selected services, especially supporting services; (vi) enhance linkages in health care delivery with the private and voluntary sectors; and (vii) implement service improvements and user charges. A draft letter of Health Sector Development Policy prepared by the Government and addressing the important policy issues noted above was discussed with the Health Secretary and his colleagues. The Chief Minister and other senior members of the Punjab Government, including the Health Minister and the Principal Secretary Finance, stated that the Government was committed to undertaking specific actions on some key issues contained in the draft letter. This letter will be finalized by the time of the appraisal mission.

6. User Charges. It was agreed that user fees for diagnostic and treatment services would be more widely implemented and further enhanced as rehabilitated facilities are phased in. It was agreed that the 1994 Government Order giving notification of a new schedule of charges, which is still pending, would be issued with a change to exempt the population below the poverty line from the OPD registration fee. Practical methods of identifying and targeting the poor for exemptions were explored in detail. The mission agreed with the Government's proposal to use its existing system for identifying and targeting the poor for free service on the basis of being eligible to hold a yellow card. The Government reconfirmed that the funds collected through user charges would be retained at the point of collection. It was agreed that user fees would only be used for non-salary recurrent cost purposes.

7. Linkages with the Private and Voluntary Sectors. It was agreed that the Government will contract out services to the private sector, such as laundry, cleaning services, and catering wherever feasible. During the mission, the prospects for recruiting suitable NGOs were discussed. It was agreed that the Government would work collaboratively with both the private and voluntary sectors in general and, where necessary, contract out the delivery of health care to the voluntary sector which has a comparative advantage in improving access to health services for disadvantaged groups in remote areas.

8. Gender Issues and Reproductive Health. It was agreed that the proposed project would include an IEC component to sensitize the public to the "life-cycle" approach to women's health. The Government will continue elaborating their ideas on activities bearing on women's health, beyond those included in the IEC component, for inclusion in the project.

PROJECT PREPARATION PROGRESS AND RECOMMENDATIONS

9. Overall Progress. Progress with regard to project preparation activities since the last mission has been quite satisfactory. The revisions made in the project proposal reflect most of the points raised in the aide-memoire of the last mission. As noted in the last aide-memoire (June, 1995), the revised proposal has targeted project investments on the Upper Bari Doab area where the percentage of population below the poverty line, at about 40%, is much higher than the state average. However, three important areas of concern remain: (i) the number of staff quarters proposed is disproportionately high; (ii) the survey of facilities has not been initiated, although satisfactory progress has been made in collecting information on the current equipment inventory; and (iii) the Government's proposal to set up a corporation to manage and implement the project could unduly delay project development. This is expected to require commitment and immediate action at the highest level of the Government. The Government and the mission agreed that these issues would need to be given top priority for the project to be appraised in October. Details on these aspects are provided below in the relevant paragraphs.

10. Project Administration and Management. To facilitate health care delivery at the first referral level, the highest levels of Punjab Government expressed to the mission their eagerness to implement and manage the proposed project through the establishment of a corporate set-up, much like the approach followed in Andhra Pradesh. The mission pointed out the risks of opting for this approach since any delay in establishing a project management structure would delay project processing at this late stage and undermine the good progress achieved in other aspects of project development. The Government informed the mission that work on setting up a corporate structure had already been initiated and the Chief Minister, the Health Minister and the Chief Secretary stated that the Government would have established a corporation and worked out all the details of its functioning, including the legal and administrative implications, prior to the appraisal mission planned in October.

11. Site Survey and Preparation of Physical Works. It was agreed during the last mission that the Government would undertake an extensive survey of all health facilities at the secondary level similar to the work being done by Karnataka and West Bengal. The last mission agreed to arrange grant funds to cover part of the costs of conducting site surveys and evaluating the existing inventory of equipment at facilities that it is proposed to include within the scope of the project. The Government and the mission agreed that this work needed to be undertaken expeditiously. However, progress got delayed since the last mission both because the Health Secretary had been changed and the consulting firm, with whom discussions had progressed on the works, reneged on the terms of the contract at the last moment. The new Health Secretary has taken up the site survey as a matter of urgency and

informed the mission that most of the of the facilities would have been surveyed by October. The mission agreed that given high priority, the survey could be completed in two months in Punjab.

12. Service Norms. A project preparation workshop involving key stakeholders in project design and organized by the Department of Health and Family Welfare in late April, 1995 defined the roles and functions of the various types of health facilities and referral hospitals. The findings of the workshop have been issued by the Department of Health and Family Welfare and were used for revising the project. The mission reviewed these norms in detail and agreed with the Government with regard to some modifications.

13. Analysis of Equipment Inventories. A postal survey has been undertaken to determine the state of current inventories of equipment at project facilities. This entailed staff at each facility completing a proforma questionnaire in which they recorded most of the relevant data. The postal survey questionnaire did not included any request for information on service activity data, and this matter now needs to be followed up by the project preparation team. The previous mission had understood that the Government had already strengthened the project preparation team by appointing a technical adviser with expertise in management and maintenance of hospital equipment to take responsibility for analyzing and verifying the equipment inventory returns. In fact, this has not happened and the work is presently being done by a non-technical officer from the Department of Health. The mission believes it would be more effective to hire a technical expert as originally proposed to establish what necessary maintenance or repair work on existing equipment and what technical specifications and volume of new equipment are needed at each facility to bring the inventories up to agreed norms.

14. Equipment Maintenance and Management. The Department of Health has elaborated an action plan and the specific mechanisms to ensure state-wide coverage not only of project investments but all current equipment and plant used by its health services. The technical adviser recruited, along with the facility survey team(s), would contribute by assessing local capabilities to provide technical support for hospital equipment including the possible role of private contractors. Further analysis of the maintenance and repair coverage plan and of the detailed proposals for in-house manpower and workshop facilities should be undertaken by this technical adviser for discussion with the appraisal mission.

15. Referral System. The project proposal has laid out a good plan for strengthening the referral mechanism between the different tiers of the health system. The plan was reviewed, including the proposed incentives to encourage patients to use the referral mechanism. Details regarding the issuing of administrative guidelines are being developed and will be reviewed at appraisal.

16. Clinical Skill and Management and Other Special Training. A training plan for strengthening clinical skills has been developed by the Government. The mission reviewed this plan and found it satisfactory; some minor additions were suggested. It was clarified that

some of the training would be coordinated by the district hospitals, where facilities will be enhanced for this purpose. Training in management and other technical skills has been discussed with the Government covering personnel policies, finance issues, procurement policies, information systems, asset management and maintenance, IEC, HMIS, and surveillance systems. The Government has identified institutions where such training will be conducted.

17. Management Information Systems (MIS). The MIS included in the project proposal was reviewed and was considered appropriate. The mission suggested that details regarding the computerization of the systems needs to be further developed.

18. Plan for Developing Surveillance Capacity for Major Communicable and Non-Communicable Diseases. A development plan for a state-wide system for major communicable and non-communicable disease surveillance has been drafted and discussed with the mission. Based on the burden of disease in the state, a number of major communicable and non-communicable diseases have been identified by the Government. These diseases will be brought under the surveillance system and channels have been defined through which information will flow. Parallel efforts will be made to improve reporting by private medical practitioners. The surveillance system will be linked to HMIS. A link with the Strategic Planning Cell needs to be established; community participation in the surveillance network has been proposed and needs to be further explicated. These issues will be discussed with the appraisal mission.

19. Information, Education and Communication (IEC). The IEC proposal was discussed with the mission. The IEC component has been formulated to focus on the need to raise public awareness of preventive measures. It will now need to be fleshed out, taking into account the findings of the beneficiary assessment study. Opportunities for contracting out some of the IEC activities will be reviewed.

20. Detailed Project Costing. Project costs have been reviewed and need further revision incorporating the changes discussed with the mission. The main changes are with respect to civil works component, especially the construction of staff quarters. The mission was of the opinion that the number of staff quarters proposed under the project was disproportionately high. It was agreed that the Government would make substantial reductions in this area. It was also agreed that the detailed revised cost tables will be provided to the mission by August 20, 1995. After revision, preliminary total project costs, including contingencies, are expected to be approximately Rs. 400 crores or about US$100 million. Recurrent costs are expected to be about Rs.25 crores at project completion. The Principal Secretary, Finance has informed the mission that the Government will have no problem in bearing this additional recurrent cost burden.

21. Drug List. The Government provided a drug list to the mission, which is being reviewed. The mission suggested that the technical specifications of the elements common

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with the Andhra Pradesh drug list be incorporated by Punjab since the Andhra Pradesh list had already been cleared by the Bank.

22. Plan for Disposal of Medical Waste. The proposal for the disposal of medical waste has been reviewed by the mission. It has been clarified that the plan for medical waste disposal should include all hospitals, including tertiary hospitals not included in the project. Staff at facility level who will carry out the disposal function need to be identified from among the existing personnel. Training modules will need to be developed for staff at different health facilities responsible for medical waste disposal. Arrangements for the temporary storage of waste prior to disposal need to be developed and the technical specifications of incinerators, including capacity, at various facilities need to be modified.

23. Beneficiary/Social Assessment and Private Sector Studies. The Beneficiary/Social Assessment and Private Sector Studies are progressing well and a preliminary draft of phases I and II have been given to the mission for review and comment. The mission is pleased to note the very good work being done by the Foundation for Research and Development of Underprivileged Groups in collaboration with the Government.

24. Performance Indicators. A list of performance indicators was discussed and agreed upon. The Government will further refine this list, to be reviewed with the appraisal mission.

25. Implementation Schedule and Procurement Plan. An implementation schedule has been prepared and reviewed by the mission. The phasing of the hardware and software components needs to be worked out more explicitly. The Government has agreed to provide these by August 20, 1995. Procurement plans are being developed and will be discussed with the Bank prior to the appraisal mission.

26. Land Acquisition. Because the proposed project involves renovation and extension of existing facilities, it is anticipated that the need for land acquisition will be minimal. The Government has provided assurance that none of the sites where hospitals are to be upgraded will entail involuntary resettlement of any persons.

27. Next Steps. An appraisal mission could be scheduled in October, 1995. By that time, the Government will need to have completed a substantial portion of the site survey and put in place a viable structure to manage and implement the proposed project. The Government has made good progress with regard to other aspects of the project. It is expected that the recommendations of the mission concerning the remaining activities will be completed by the end of September.

INDIA
PROPOSED STATE HEALTH SYSTEMS DEVELOPMENT PROJECT II

KARNATAKA

INTERNATIONAL DEVELOPMENT ASSOCIATION

AIDE-MEMOIRE (JULY 1995)

1. An International Development Association (IDA) team consisting of Messrs./Mmes. T. Nawaz (mission leader), S. Rao-Seshadri, K. Hinchliffe and D. Porter visited Karnataka between July 26 and July 31, 1995 to review preparation and pre-appraise the proposed State Health Systems Development Project II in Karnataka. The mission would like to express its gratitude to the Chief Minister of Karnataka, Mr. H. D. Deve Gowda, the Health Minister Mr. H.C. Mahadevappa and the Medical Education Minister Mr. A. B. Patil for meeting the team to discuss key issues regarding the project. The mission also met with Mr. S. B. Muddappa, Chief Secretary, Mr. C. Noronha, Additional Chief Secretary, Mr. B.K. Bhattacharya, Additional Chief Secretary Finance and Mr. M. Sundaram, Principal Secretary to the Chief Minister and to the Department of Rural Development. The mission also discussed the project development activities with Mr. I. Chaudhuri, Additional Secretary, Ministry of Health and Family Welfare, Government of India. The mission would like to thank Mr. Gautam Basu, Secretary Health and Family Welfare Department, Government of Karnataka, and his colleagues for their cooperation and hospitality. A review meeting on the aide-memoire was held with Mr. G. Basu and Mr. I. Chaudhuri on July 30, 1995 in Bangalore.

2. This aide-memoire records the overall progress made in the preparation of the proposed project, summarizes the main findings and recommendations of the pre-appraisal mission and the understandings reached with the Government of Karnataka on a proposed plan to appraise the project in October.

PROJECT OBJECTIVES AND COMPONENTS

3. Objectives: The Government and the Bank reconfirmed that the main objectives of the project would be to: (i) improve efficiency in the allocation of health resources through policy and institutional development; and (ii) improve the performance of the health care system through improvements in the quality, effectiveness and coverage of health care services at the first referral level and selective coverage at the primary level. The achievement of these objectives would contribute to improving the health status of the people of Karnataka, especially the poor and the underserved, by reducing mortality, morbidity and disability.

4. Components: It was reaffirmed that the project would have the following major areas of investment: (i) Management Development and Institutional Strengthening including (a) improving the institutional framework for policy development; (b) strengthening the management and implementation capacity of institutions including structures, procedures, management information systems, culture of service delivery, resources and training; (c) developing surveillance capacity for the major communicable

diseases; and (ii) Improving Service Quality, Access and Effectiveness by: (a) extending/renovating community, area and district hospitals; (b) upgrading their clinical effectiveness; (c) improving the referral mechanism and strengthening linkages with the primary and tertiary health care levels; and (d) improving access to first referral and primary health care services for disadvantaged groups, especially STs and SCs and women.

POLICY FRAMEWORK

5. Discussions between the Bank and the Government on key policy issues continued to progress very satisfactorily. The Government reiterated its commitment to implement a policy package of health sector reforms that will include key sectoral development issues for the primary and secondary levels of health care. These include the need to: (i) increase budgetary allocations to the health sector; (ii) allocate most of the incremental funds for the health sector to the primary and secondary levels of care; (iii) safeguard the operations and maintenance component of the health budget to ensure adequate supplies of drugs and essential medical materials and maintenance of equipment and infrastructure; (iv) set up a Strategic Planning Cell under the Health Secretary to undertake analyses of health sector issues; (v) strengthen the Health Department's role and provide it with autonomy in managing essential operational activities such as civil works and construction and maintenance activities; (vi) contract out selected services, especially supporting services; (vii) enhance linkages in health care delivery with the private and voluntary sectors; and (viii) implement service improvements and user charges. A draft letter of Health Sector Development Policy prepared by the Government and addressing the important policy issues noted above was discussed with the Health Secretary and his colleagues. Commitment on specific actions was also obtained on some of the key issues contained in the draft letter from the Chief Minister and other high levels of Government, including the Finance Secretary. This will be finalized by the time of the appraisal mission.

6. User Charges. It was agreed that user fees for treatment and diagnostic services would be more widely implemented in a phased manner, and the 1988 Government Order on user fees would be revised. Methods of identifying and targeting the poor for exemptions were fully discussed. It was agreed with the Government that the poverty line set by the Planning Commission, GOI, of Rs. 11,000 per annum, on which the JRY program is also based, could be used for targeting poor people for exemption from user charges. The feasibility of instituting differential charges for those whose income exceeds Rs. 50,000 per annum, and are liable for income tax payment, was also discussed with the Government and would be reconsidered during appraisal. It was agreed that revenue collected through user charges would not go back to the state treasury but would be retained at the district level, to be reallocated by District Health Committees amongst hospitals in the district based on both need and level of revenue collection. It was also agreed that user fees would be used specifically for non-salary recurrent cost purposes.

7. Linkages with the Private and Voluntary Sectors. It was agreed that the Government will contract out services to the private sector, such as laundry, cleaning services, and catering where ever feasible. During the mission, joint discussions were held

between the Government, the Bank and an NGO representative to discuss the scope for participation of the voluntary sector in implementing the SC/ST and reproductive health components of the project. It was agreed that the Government would work collaboratively with both the private and voluntary sectors in general and, where necessary, contract out the delivery of primary care services to the voluntary sector which has a comparative advantage in improving access to health care services for disadvantaged groups in remote areas.

8. Linkages with other health sector projects. It was reaffirmed that the proposed project would complement and consolidate investments made by on-going Population, Health and Nutrition projects in Karnataka by providing policy and implementation co-ordination with other health and family welfare projects, particularly with regard to the SC/ST and reproductive health components of the project. The proposed project would also fill some of the input gaps in primary health care in tribal areas. The scope of KFW's investments to upgrade primary and secondary health care facilities in four districts in Northern Karnataka was also discussed. It was agreed between the Government, the Bank and KFW that the project inputs in those districts would be complementary and avoid duplication. Discussions were held earlier with KFW to finalize project implementation issues.

PROJECT PREPARATION PROGRESS AND RECOMMENDATIONS

9. Overall progress. Substantial progress has been made in project preparation activities since the last mission. The revised project proposal (July, 1995) has incorporated the recommendations of the last aide-memoire, in particular the Government has revised the list of hospitals and deleted several speciality hospitals that were included in the previous version of the proposal; a mental hospital still remains to be deleted. The survey of physical facilities is progressing well and is expected to be completed by September; a first draft of the beneficiary social assessment was provided to the mission and the preliminary findings are being used to fine-tune the project design; and the norms developed at the workshop held in Bangalore earlier this year on service norms have been reviewed by the mission and agreed changes have been incorporated. Overall, the project proposal is very well conceived.

10. Project Administration and Management. The project management arrangements, additional staffing requirements and functional responsibilities have been very well documented in the revised proposal. Some changes were agreed upon during the mission. It was agreed that the Health Department's role would be strengthened by providing it with autonomy in managing essential operational activities such as civil works and construction and maintenance activities. In addition, this arrangement would improve the implementation of the civil works component of other Health and FW projects, especially the IPP IX project, being undertaken by the state. It was also agreed that the Strategic Planning Cell would be under the Health Secretary. It was confirmed that an Additional Secretary would be the Project Coordinator and would be fully supported by an Additional Director.

11. Site Survey and Preparation of Physical Works. An extensive survey of all health facilities at the secondary level is being undertaken by STEM. The mission reviewed some of the survey documents and found them satisfactory. Given the progress to date, it is expected that the survey will be completed, and the reports issued by September, 1995.

12. Analysis of Equipment Inventories. Information concerning the nature and state of the current inventory is being gathered from each facility that will receive inputs under the proposed project. This work is progressing at a good pace. STEM has hired an expert to analyze the inventory returns and is in the process of computerizing this information. Based on the service norms, the mission has reviewed jointly with the Government and refined the equipment lists for various types of hospitals.

13. Equipment Management and Maintenance. The Department of Health has elaborated an action plan and the specific mechanisms to ensure state-wide coverage not only of project investments but all its current health equipment. The facility survey team(s) would contribute by assessing local capabilities to provide technical support for hospital equipment including the possible role of private contractors. Further analysis of the in-house workforce and workshop requirements will be undertaken before the appraisal mission.

14. Workforce. Based on the service norms agreed upon, the proposed levels of staffing for medical and nursing cadres have been reviewed during the mission. In addition, a package of incentives is being developed to improve the recruitment, deployment and retention of staff in areas where difficulties of posting and retaining staff are being experienced. In areas with a predominance of SC/ST populations, where the program for health screening will be undertaken within the project, the roles of the PHC staff, including the PHC doctor, are being restored and it is planned that service delivery will be more community based.

15. Referral Mechanism. The project proposal has laid out a good plan for strengthening the referral mechanism between the different tiers of the health system. The plan was reviewed, including the proposed incentives to encourage patients to use the referral mechanism. Details regarding the issuing of administrative guidelines are being developed.

16. Clinical Skill, and Management and Other Special Training. A training plan for strengthening clinical skills has been developed by the Government. The Bank team has reviewed this plan and found it satisfactory, and suggested some minor additions. It was clarified that some of the training would be coordinated by the district hospitals, where facilities will be enhanced for this purpose. Training in management and other technical skills have been discussed with the Government covering personnel policies, finance issues, procurement policies, information systems, asset management and maintenance, IEC, HMIS, and surveillance systems. The Government has identified institutions where such training will be conducted.

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17. Plan for Developing Surveillance Capacity for Major Communicable Diseases. A development plan for a state-wide system for major communicable disease surveillance has been drafted and discussed with the mission. It was clarified that 80 of the proposed 180 staff were not additional - this is now being amended in the revised costing of the component. Based on the burden of disease in the state, seven major communicable diseases have been identified by the Government. These and other diseases will be brought under the surveillance system and channels have been defined through which information will flow. Parallel efforts will be made to improve reporting by private medical practitioners. The surveillance system will be linked to HMIS. A link with the Strategic Planning Cell needs to be established; community participation in the surveillance network needs to be more clearly explicated. These issues will be discussed with the appraisal mission.

18. Management Information System. The MIS included in the project proposal was reviewed and was considered appropriate. The mission suggested that details regarding the computerization of the systems needs to be further worked out. The Government organized an excellent demonstration of an MIS system being used by some private hospitals. It was agreed that modifications to using such a system by the Health Department would be worked on and discussed with the next mission.

19. Detailed Project Costs. Project costs have been revised and need further revision incorporating the changes discussed with the mission. It was agreed that the detailed revised cost tables will be provided to the mission by August 20, 1995. After revision, preliminary total project costs, including contingencies, are expected to be approximately Rs. 620 crores or about US$154 million. Recurrent costs are expected to be about Rs.40 crores at project completion. The Principal Secretary Finance has informed the mission that the Government will have no problem in bearing this additional recurrent cost burden.

20. Drug List. The Government provided a drug list to the mission, which is being reviewed. The mission suggested that the technical specifications of the elements common with the Andhra Pradesh drug list be incorporated by Karnataka since the Andhra Pradesh list had already been cleared by the Bank.

21. Plan for Disposal of Medical Waste. The proposal for the disposal of medical waste has been reviewed by the mission. It has been clarified that the plan for medical waste disposal should include all hospitals, including tertiary hospitals not included in the project. Training modules will need to be developed for staff at different health facilities responsible for medical waste disposal. Arrangements for the temporary storage of waste prior to disposal need to be developed and the technical specifications of incinerators, including capacity, at various facilities need to be modified.

22. Tribal Plan. A Tribal Plan integral to specified project components and demonstrating how the project activities will benefit tribal peoples was discussed in detail and a specific project component has been added to address this issue.

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23. Beneficiary/Social Assessment and Private Sector Studies. The Beneficiary/Social Assessment and Private Sector Studies are progressing well and a first draft of phases I and II have been given to the mission for review and comment. The mission is pleased to note the excellent work being done by ASCI in collaboration with the Government.

24. Performance Indicators. A list of performance indicators was discussed and agreed upon. The Government will further refine this list, to be reviewed with the appraisal mission.

25. Implementation Schedule and Procurement Plan. An implementation schedule has been prepared and reviewed by the mission. The phasing of the hardware and software components need to be worked out more explicitly. The Government has agreed to provide these by August 20, 1995. Procurement plans are being developed and will be discussed with the Bank prior to the appraisal mission.

26. Land acquisition. Because the proposed project involves renovation and extension of existing facilities, it is anticipated that the need for land acquisition will be minimal. The Government has been asked to provide assurance that none of the sites where hospitals will be upgraded will entail involuntary resettlement of any persons.

27. Chief Minister's Health Relief Fund. During the meeting with the Chief Minister, a request was made to the mission to consider whether it would be possible for the Bank to support a Health Relief Fund already initiated by the Government. The Fund is intended to provide specialised health services to the population below the poverty line afflicted with life-threatening diseases such as oncological, cardiological, neurological and nephrological disorders. The mission stated that it would seek the advice of Bank Management on this proposal by the State since strictly it does not fall within the intended scope of the Health Systems Development Project II.

28. Next Steps. Given the excellent progress made by the Government in preparing the project, it is expected that an appraisal mission could be scheduled for October, 1995, on the understanding that the remaining activities recommended by this mission are completed.

July, 1995

GOV-2.

THE WORLD BANK/IFC/M.I.C.A.
Washington, D.C. 20433 - U.S.A.

FACSIMILE COVER SHEET AND MESSAGE

DATE: Friday, March 22, 1996
MESSAGE NO: WDKSJG77 FAXXJ015
NO. OF PAGES: 1 (including this page)
SENT BY: SA2PH
FAX REPLY NO: 202-477-0397
TO: Mr. Gautam Basu, Secretary
Department of Health and Family Welfare, Govt. of Karnataka
Karnataka, INDIA

FAX / MINI CODE NO: 901191805532879

SUBJECT: INDIA: Second State Health System Development Project

WASHINGTON, D.C. 21-Mar-1996
FOR DR. M.C. AHLUWALIA, SECRETARY, MINISTRY OF FINANCE (MOF),
MR. V. GOVINDARAJAN, JOINT SECRETARY, DEPT. OF ECONOMIC AFFAIRS,
MOF, MR. P.P. CHAUHAN, SECRETARY, MINISTRY OF HEALTH AND FAMILY
WELFARE (MOHFW), MRS. SHAILAJA CHANDRA, ADDITIONAL SECRETARY,
MOHFW, MRS. LINA CHAKRAVORTI, PRINCIPAL SECRETARY, DEPT. OF
HEALTH AND FAMILY WELFARE, GOVT. OF WEST BENGAL, MR. GAUTAM BASU,
SECRETARY, DEPT. OF HEALTH AND FAMILY WELFARE, GOVT. OF KARNATAKA,
MR. G.P.S. SAHI, PRINCIPAL SECRETARY TO CHIEF MINISTER AND PRINCIPAL
SECRETARY, DEPT. OF HEALTH, GOVT. OF PUNJAB, MR. D. BAINS, MANAGING
DIRECTOR, PUNJAB HEALTH SYSTEMS CORPORATION, PUNJAB, INDIA.
RE: BOARD APPROVAL OF INDIA SECOND STATE HEALTH SYSTEMS DEVELOPMENT
PROJECT. WE ARE VERY PLEASED TO INFORM YOU THAT THE ASSOCIATION'S
BOARD OF DIRECTORS APPROVED A CREDIT OF SDR 235.5 MILLION (US$ 350
MILLION EQUIVALENT) FOR THE SECOND STATE HEALTH SYSTEMS DEVELOPMENT
PROJECT ON MARCH 21, 1996. WE WOULD LIKE TO CONVEY OUR
CONGRATULATIONS TO ALL WHO HAVE WORKED ON THE PREPARATION OF THE
PROJECT. WE LOOK FORWARD TO THE EXPEDITIOUS SIGNING AND
EFFECTIVENESS OF THIS VERY IMPORTANT PROJECT. BEST REGARDS, RICHARD
SKOLNIK, CHIEF, SA2PH, SOUTH ASIA COUNTRY DEPARTMENT II, WORLD BANK.

=03221433

If you experience any problems with this transmission, call us back
as soon as possible. PHONE: (202) 458-2805

CENTRAL FACSIMILE NUMBER: (202) 477-6391
TELEX: RCA - 248423 WORLDBANK

WP-466-B/vp
Legal Department
CONFIDENTIAL DRAFT
(Subject to Change)
SAhmed
February 2, 1996

CREDIT NUMBER ___

PROJECT AGREEMENT

(Second State Health Systems Development Project)

between

INTERNATIONAL DEVELOPMENT ASSOCIATION

and

State of Karnataka
State of Punjab
State of West Bengal
and
Punjab Health Systems Corporation

Dated , 1996

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and
Punjab Health Systems Corporation

Dated , 1996

ARTICLE I

Definitions

Section 1.01. Unless the context otherwise requires, the several terms defined in the Development Credit Agreement, the Preamble to this Agreement and in the General Conditions (as so defined) have the respective meanings therein set forth.

ARTICLE II

Execution of the Project

Section 2.01. (a) The Project States and PHSC declare their commitment to the objectives of the Project as set forth in Schedule 2 to the Development Credit Agreement, and, to this end, shall carry out the Project with due diligence and efficiency and in conformity with appropriate administrative, financial and health practices, and shall provide, or cause to be provided, promptly as needed, the funds, facilities, services and other resources required for the Project.

(b) Without limitation upon the provisions of paragraph (a) of this Section and except as the Association and the Project States and PHSC shall otherwise agree, the Project States and PHSC shall carry out the Project in accordance with the Implementation Program set forth in Schedule 2 to this Agreement.

(c) Without limitation upon the provision of paragraph (a) of this Section, Punjab shall promptly make available the proceeds of the Credit received from the Borrower to PHSC as part of its grant contribution in accordance with the provisions of the Ordinance.

Section 2.02. Except as the Association shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Credit shall be governed by the provisions of Schedule 1 to this Agreement.

Section 2.03. (a) The Project States and PHSC shall carry out the obligations set forth in Sections 9.03, 9.04, 9.05, 9.06, 9.07 and 9.08 of the General Conditions (relating to insurance, use of goods and services, plans and schedules, records and reports, maintenance and land acquisition, respectively) in respect of the Project Agreement and the Project.

(b) For the purposes of Section 9.07 of the General Conditions, and without limitation thereto, the Project States and PHSC shall:

(i) prepare, on the basis of guidelines acceptable to the Association and furnish to the Association not later than six (6) months after the Closing Date or such later date as may be agreed for this purpose between the Association and the Project States and PHSC, a plan designed to ensure the sustainability of the Project;

(ii) afford the Association a reasonable opportunity to exchange views with the Project States and PHSC on said plan; and

(iii) thereafter, carry out said plan with due diligence and efficiency and in accordance with appropriate practices, taking into account the Association's comments thereon.

Section 2.04. (a) The Project States and PHSC shall, at the request of the Association, exchange views with the Association with regard to the progress of the

Project, the performance of its obligations under this and other matters relating to the purposes of the Credit.

(b) The Project States and PHSC shall promptly inform the Association of any condition which interferes or threatens to interfere with the progress of the Project, the accomplishment of the purposes of the Credit, or the performance by each of them of its respective obligations under this Agreement.

ARTICLE III

Financial Covenants

Section 3.01. (a) The Project States and PHSC shall each maintain records and accounts adequate to reflect in accordance with sound accounting practices their operations, resources and expenditures in respect of activities related to their respective parts of the Project, of the departments or agencies responsible for carrying out the Project or any part thereof.

(b) The Project States and PHSC shall:

(i) have records and accounts referred to in paragraph (a) of this Section for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to the Association;

(ii) furnish to the Association as soon as available, but in any case not later than nine months after the end of each such year, (A) certified copies of its financial statements for such year as so audited and (B) the report of such audit by said auditors, of such scope and in such detail as the Association shall have reasonably requested; and

(iii) furnish to the Association such other information concerning said records, accounts and financial statements as well as the

audit thereof, as the Association shall from time to time reasonably request.

ARTICLE IV

Effective Date; Termination; Cancellation and Suspension

Section 4.01. This Agreement shall come into force and effect on the date upon which the Development Credit Agreement becomes effective.

Section 4.02. (a) This Agreement and all obligations of the Association and of the Project States and PHSC thereunder shall terminate on the earlier of the following two dates:

(i) the date on which the Development Credit Agreement shall terminate in accordance with its terms; or

(ii) the date twenty years after the date of this Agreement.

(b) If the Development Credit Agreement terminates in accordance with its terms before the date specified in paragraph (a) (ii) of this Section, the Association shall promptly notify the Project States and PHSC of this event.

Section 4.03. All the provisions of this Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the General Conditions.

ARTICLE V

Miscellaneous Provisions

Section 5.01. Any notice or request required or permitted to be given or made under this Agreement and any agreement between the parties contemplated by this Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable, telex or radiogram to the party to which it is required or permitted to be given or made at such party's address hereinafter specified or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:	Telex:
INDEVAS Washington, D.C.	197688 (TRT), 248423 (RCA), 64145 (WUI) or 82987 (FTCC)

For the State of Karnataka:

Chief Secretary to the
Government of Karnataka
Bangalore, India

For the State of Punjab:

Secretary to the
Government of Punjab
Department of Health
Chandigarh, India

For the State of West Bengal:

Chief Secretary to the
Government of West Bengal
Calcutta, India

For Punjab Health Systems Corporation:

Managing Director
Punjab Health Systems Corporation
Chandigarh, India

Section 5.02. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Agreement on behalf of the Project States or PHSC, may be taken or executed by the Chief Secretary in the case of Karnataka and West Bengal, or the Secretary, Department of Health in the case of Punjab or the Managing Director in the case of PHSC or such other person or persons as the respective Chief Secretary, the Secretary, Department of Health, or the Managing Director shall designate in writing, and the Project States and PHSC shall furnish to the Association sufficient evidence of the authority and the authenticated specimen signature of each such person.

Section 5.03. This Agreement may be executed in several counterparts, each of which shall be an original, and all collectively but one instrument.

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

INTERNATIONAL DEVELOPMENT ASSOCIATION

By

Regional Vice President
South Asia

STATE OF KARNATAKA
STATE OF PUNJAB
STATE OF WEST BENGAL
PUNJAB HEALTH SYSTEMS CORPORATION

By

Authorized Representative

SCHEDULE 4

Procurement and Consultants' Services

Section I: Procurement of Goods and Works

Part A: General

Goods and works shall be procured in accordance with the provisions of Section I of the "Guidelines for Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 (the Guidelines) and the following provisions of this Section, as applicable.

Part B: International Competitive Bidding

1. Except as otherwise provided in Part C of this Section, goods shall be procured under contracts awarded in accordance with the provisions of Section II of the Guidelines and Paragraph 5 of Appendix 1 thereto.

2. The following provisions shall apply to goods to be procured under contracts awarded in accordance with the provisions of paragraph 1 of this Part B.

(a) Grouping of contracts

To the extent practicable, contracts for goods shall be grouped in bid packages estimated to cost $200,000 equivalent or more each.

(b) Preference for domestically manufactured goods

The provisions of paragraphs 2.54 and 2.55 of the Guidelines and Appendix 2 thereto shall apply to goods manufactured in the territory of the Borrower.

Part C: Other Procurement Procedures

1. Except as provided in paragraphs 2 and 3 hereof, civil works may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

2. Civil works estimated to cost the equivalent of $45,000 or less per contract, up to an aggregate amount not to exceed the equivalent of $18,000,000, may be procured: (i) under lumpsum, fixed price contracts awarded on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to successfully complete the contract; or (ii) through direct contracting in accordance with the provisions of paragraph 3.7 of the Guidelines, and in accordance with procedures acceptable to the Association; or (iii) with the Association's prior agreement, under force account procedures in accordance with the provisions of paragraph 3.8 of the Guidelines, provided, however, that civil works procured under such procedures shall not in the aggregate exceed $10,000,000.

3. Except as provided in paragraph 4 hereof, equipment estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of $12,700,000, may be procured under contracts awarded on the basis of

national competitive bidding procedures, in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

4. Equipment estimated to cost the equivalent of $50,000 or less per contract, up to an aggregate amount not to exceed the equivalent of: (i) $4,200,000, may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines; and (ii) $12,700,000, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

5. Vehicles estimated to cost not more than the equivalent of $300,000 in the aggregate may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

6. Except as provided in paragraph 7 hereof, medical laboratory supplies estimated to cost less than the equivalent of $200,000 per contract, up to an aggregate amount not to exceed the equivalent of: (i) $2,700,000, may be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines, and (ii) $400,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

7. Medical laboratory supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $2,300,000 may

be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

8. Except as provided in paragraphs 9 and 10 hereof, medicines, furniture, Management Information System/Information, Education and Communication (MIS/IEC) materials and supplies shall be procured under contracts awarded on the basis of national competitive bidding procedures in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

9. Medicines estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $1,500,000 may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

10. Medicines, Furniture, MIS/IEC materials and other supplies estimated to cost less than the equivalent of $50,000 per contract, up to an aggregate amount not to exceed the equivalent of $3,700,000, $2,800,000, $1,700,000 and $11,100,000 respectively, may be procured under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

11. Except as provided in paragraph 12 hereof, maintenance of buildings and vehicles and equipment may be carried out under contracts awarded on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

12. Maintenance of buildings, and vehicles and equipment which meet the requirements of paragraphs 3.7 and 3.8 of the Guidelines and costing in the aggregate less than the equivalent of $3,100,000 in the case of buildings and $7,000,000 in the case of vehicles and equipment, may be carried out either (i) through direct contracting; or (ii) force account, in accordance with the provisions of said paragraphs 3.7 and 3.8 respectively, of the Guidelines, and in accordance with procedures satisfactory to the Association.

Part D: Review by the Association of Procurement Decisions

1. Procurement Planning

Prior to the issuance of any invitations to prequalify for bidding or to bid for contracts, the proposed procurement plan for the Project shall be furnished to the Association for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Guidelines. Procurement of all goods and works shall be undertaken in accordance with such procurement plan as shall have been approved by the Association, and with the provisions of said paragraph 1.

2. Prior Review

With respect to each contract for goods or civil works estimated to cost more than the equivalent of $200,000 or $300,000 respectively, the procedures set forth in paragraphs 2 and 3 of Appendix 1 to the Guidelines shall apply.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Guidelines shall apply.

Section II: Employment of Consultants

1. Consultants' services shall be procured under contracts awarded in accordance with the provisions of the "Guidelines for the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency" published by the Bank in August 1981 [(the Consultant Guidelines)]. For complex, time-based assignments, such contracts shall be based on the standard form of contract for consultants' services issued by the Bank, with such modifications thereto as shall have been agreed by the Association. Where no relevant standard contract documents have been issued by the Bank, other standard forms acceptable to the Bank shall be used.

2. Notwithstanding the provisions of paragraph 1 of this Section, the provisions of the Consultant Guidelines requiring prior Association review or approval of budgets, short lists, selection procedures, letters of invitation, proposals, evaluation reports and contracts, shall not apply to (a) contracts for the employment of consulting firms estimated to cost less than $100,000 equivalent each or (b) contracts for the employment of individuals estimated to cost less than $50,000 equivalent each. However, said exceptions to prior Association review shall not apply to (a) the terms of reference for such contracts, (b) single-source selection of consulting firms, (c) assignments of a critical nature, as reasonably determined by the Association, (d) amendments to

contracts for the employment of consulting firms raising the contract value to $100,000 equivalent or above, or (e) amendments to contracts for the employment of individual consultants raising the contract value to $50,000 equivalent or above.

SCHEDULE 2

Implementation Program

1. Each Project State shall:

(a) ensure that within the allocations for the health sector in each Fiscal Year during the implementation of the Project the share of resources for Primary and Secondary Levels of Health Services shall be increased in each such Fiscal Year until FY 02; and

(b) allocate in each Fiscal Year during the implementation of the Project adequate resources for drugs, essential supplies, and maintenance of equipment and buildings at facilities providing First Referral Level Health Services in accordance with norms agreed to with the Association.

2. Each Project State shall maintain its Strategic Planning Cell with adequate staff, resources and terms of reference acceptable to the Association.

3. Each Project State and PHSC shall levy user-charges in district and sub-divisional hospitals in accordance with a program and time schedule acceptable to the Association, such program to focus, inter alia, on: (a) permitting the revenues collected from user-charges to be retained at the hospital level; (b) implementing user charges in a phased manner after improvements in the quality of basic services and infrastructure development have been completed; (c) developing and applying criteria for exempting the poor from user charges; and (d) strengthening appropriate management and collection arrangements for maintaining existing user charges, including the

establishment and maintenance of District Health Committees in Karnataka and West Bengal for collecting such charges.

4. Punjab and PHSC shall, as the case may be, take all such measures as may be necessary or required: (i) to enable PHSC to carry out its part of the Project; and (ii) to ensure that PHSC undertakes health care activities at the secondary level in accordance with service delivery norms acceptable to the Association , and in carrying out other heath care activities shall ensure that its ability to perform its obligations under this Agreement as determined, inter alia, from a review of the progress achieved in implementing the annual work plans and in meeting the development and performance indicators referred to in paragraph 9 hereof is not adversely affected.

5. For purposes of enhancing the quality of health care services under the Project, each Project State and PHSC shall: (i) maintain the key headquarters personnel appointed for purposes of implementing the Project ; (ii) appoint and thereafter maintain key additional personnel with adequate qualification and experience in accordance with a schedule of appointment agreed with the Association; (iii) adopt, no later than six months after completion of the physical improvements in any hospital under the Project, and thereafter implement, staffing and technical norms acceptable to the Association; and (iv) provide on an annual basis adequate funds, satisfactory to the Association, for the maintenance of previously existing equipment in health care facilities supported under the Project.

6. For purposes of carrying out Part B.3 of the Project as set forth in Schedule 2 to the Development Credit Agreement, each Project State and PHSC shall, no later than December 31, 1996; (i) issue appropriate directives to hospitals to strengthen the management of the referral mechanism between the Primary, Secondary, and Tertiary Level Health Services; (ii) establish and thereafter maintain and implement appropriate referral protocols and clinical management protocols; and (iii) establish and thereafter maintain and implement an appropriate incentive system for patients who use the system.

7. Karnataka and West Bengal shall maintain the District Health Committees with such staff, resources, powers, functions and responsibilities so as to enable them to facilitate, inter alia, the functioning of the referral mechanism, the collection and distribution of user charges, maintenance of equipment, waste management, training of technical staff, quality assurance, surveillance of communicable diseases and the monitoring and supervision of their respective activities to be carried out under the Project.

8. Each Project State shall take all such measures as may be necessary or required in order to provide, and thereafter maintain, authority to DOHFW in the case of Karnataka and West Bengal and to PHSC in the case of Punjab for managing the activities to be carried out by them under the Project, including construction and maintenance activities.

9. Each Project State and PHSC shall:

(a) by April 30 of each year during the implementation of the Project beginning with April 30, 1997:

(i) provide to the Association an annual work plan, acceptable to the Association, setting forth the respective activities under the Project to be carried out during the prevailing Fiscal Year including the budgetary allocations to be made available for such purpose, as well as the performance benchmarks and development objectives to be achieved and drawn from the overall framework agreed to be achieved under the Project including, inter alia, hospital activity indicators, hospital efficiency indicators, and quality, access and effectiveness indicators to be measured in accordance with methodology satisfactory to the Association; and

(ii) review with the Association the progress achieved in implementing the Project under the annual work plan for the previous Fiscal Year and the interim plan referred to in sub-paragraph (c) below of this paragraph (9) with special reference to the achievement of the performance benchmarks and development objectives incorporated therein;

(b) implement each annual work plan in a manner satisfactory to the Association, with the goal, inter alia, of meeting the performance benchmarks and the development objectives set forth therein; and

(c) implement the Project until the formulation of the first annual work plan in accordance with an interim plan agreed with the Association.

10. Each Project State shall ensure that: (i) its respective incremental budgetary allocations under the Project for the Primary, and First Referral Level Health Services for each Fiscal Year during the implementation of the Project shall be fully additional to the allocations made in FY 95; and (ii) the budgetary allocations for the annual work plans and the interim plan referred to in paragraph 9 hereof are made available on a timely basis sufficient to meet the resource requirements under such plans.

11. Karnataka and West Bengal shall implement the Project in tribal areas (as designated by each such Project State) and West Bengal shall implement the Project in the Sunderbans Area in accordance with the principles, objectives and policies of the Tribal and Backward Area Development Strategy with emphasis on: (a) strengthening linkages between Primary, and Secondary Level Health Services: (b) providing an incentive package to doctors and other medical staff to work in the tribal areas of Karnataka and in the Sunderbans Area of West Bengal; (c) increasing the appropriate utilization of the medical system by the Scheduled Tribe population: (d) reducing the cost to Scheduled Tribes of utilizing such system in Karnataka; and (e) increasing the number of beds at sub-divisional and community hospitals.

12. PHSC shall carry out Part A.2 (ix) of the Project in accordance with procedures and arrangements satisfactory to the Association.

13. The Project States and PHSC shall, with the participation of the Borrower and the Association: (a) jointly carry out by June 30, 1999 a mid-term review of the Project, including on management aspects and financial sustainability, under terms of reference satisfactory to the Association; and (b) carry out the recommendations of such review in a manner satisfactory to the Association.