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COMPREHENSIVE RURAL HEALTH PROJECT, JAMKHED

THE VILLAGE LEVEL WORKER

THE Comprehensive Rural Health Project is working in 30 villages in and around Jamkhed. The aim of the Project is to find a method of delivery of health care best suited to the needs and resources (financial and man power) of the rural area.

THE rural economy is such that it cannot support the services of a physician in every village or groups of villages, neither are qualified physicians readily available in rural areas. Taking this in to account the project's method of delivery of health care is to delegate the responsibility people lesser trained. Delegation of every task to the humblest member of the team capable of doing it satisfactorily is one of the ways of overcoming the problems of inadequate manpower and financial resources.

A Three tier system of delivery of health care has been organized. The physician is at the head of the health team. He delegates the responsibility of rendering primary health care to the nurse and paramedical worker (2nd tier). The third tier in this system is the village level worker, who is a member of the community and comes in close contact with her peers and therefore she acts as the liaison between the community and the more educated nurse or paramedical worker.

THE VILLAGE LEVEL WORKER

A cultural gap was found to exist between the city-educated nurse/paramedical worker and the illiterate rural folk. Very often it was found that a patient after listening to the advice of a physician or nurse, would take and follow the advice of the illiterate watchman or sweeper of the health centre, rather than that of the physician. This is because he identifies himself with another illiterate person and feels closer to him rather than the educated sophisticated nurse. Taking this attitude into consideration it was felt that the best way to get into the community and teach them to accept new methods, change attitudes was to enlist the help of women from within the community.

It was found that a nurse staying in a village for several months, could not convince a single woman to undergo tubectomy. On the other hand a women (illiterate) from the same village, when convinced herself was able to get 75 women for tubectomy within the same period of time.

THIS experience led us to form the third tier of workers the village level workers.

THE village community is asked to find women from their own community who would be interested in joining the health care team to help in rendering health care. Usually women with no household responsibilities volunteer for such work.

PREPARATION OF THE VILLAGE LEVEL WORKER

THE women come to the health centre at Jamkhed on Saturdays and Sundays. On these two days they are given regular classeson various health topics by the physicians, nurses and paramedical workers. The women are mostly illiterate and therefore most of the teaching is done with help of flash cards and charts.

The five priorities of the Project are stressed, and the village level worker's role in of them is explained. Each class is begun with repetition of the previous weeks teaching and a discussion of the application of their in the village.

THE women are also taught the use of flash cards so that they can use them in their promotional work.

BY this method we are in the process of training 8 workers and the experience with them is so far very encouraging.

One worker has been able to convince 200 women to take Antenatal care and bring over 100 women for tubectomy. She is also able to follow up patients with tuberculosis and leprosy and encourage them to take treatment regularly from the clinic.

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PART-TIME VILLAGE LEVEL HEALTH WORKERS - "BAREFOOT DOCTORS" - AT HEALTH UNIT, PALGHAR*

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Newer techniques are being developed in all the walks of life to improve quality of life. 'Industrial Revelution' and 'Green Revelution' have been familiar words for sometime. However, disease and premature death are still prevelant in our country. The communicable diseases and malnutrition in the developing countries are the leading causes of the high mortality and morbidity rates which adversely affect their national economics. These preventable diseases beget poverty which in turn leads to poor health; a vicious cycle.

With the present knowledge, a number of killing communicable diseases can be controlled or eradicated. The management of protein calorie malnutrition is well documented. The problem is how to take this knowledge to a great number of suffering people in the community where it is difficult to reach them. It is anticipated that due to industrial growth and increased of agricultural output, the socio-economic conditions of a developing country would improve and subsequently general health would improve. But this is a very slow process. The developing countries can not afford to waste any more time. They should have results as soon as possible which means employing the simplest possible way. They have to work within all the limitations of men, money and material. Only revelutionary methods and approach can bring about the "Health Revelution".

Health Care in developing countries:-

The concept of revelution in health planning has been accepted by number of developing countries. In Sudan, Uganda, Zambia, Nigeria, Malavi and many other countries, the health auxiliaries provide health and medical care through clinics and hospitals. There are places where Medical Assistants are managing 200-bed hospitals and perform major surgical operations.[1] It is remarkable that Sudan can reach so many people with health services, even though simple in form, due to auxiliary and paramedical personnel particularly Medical Assistants.

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In Malavi a few professional health people provide a high standard of care for a relatively few patients while Medical Assistants provide more basic care for the rest.

The common medical needs are not so complex. The lower level medical worker must only be able to recognise threats to health that are visible and easy to identify (like diarrhoea, upper respiratory infections, malnutrition, infectious diseases and infestations) or problems that are less threatening and more of a personal concern like headache, constipation, earache, cuts, etc. Auxiliary workers could easily look after these problems while the professionals could function as leaders, consultants and managers.

The Chinese claim a solution to this problem of community health, with maximum benefits from minimum cost in their system of "Barefoot doctors".[5] They have placed a priority on preventive programmes. The key to this system of 'Barefoot doctors' is the proper management of available manpower. From the beginning of the revolution, they rejected the traditional Doctor-patient relationship which a poor country cannot afford as it requires a large investment for training facilities and hospital-based services. As an alternative they emphasized the provision of health care for the greatest number of people at the least cost.

The 'Barefoot doctors' appeared at the beginning of 'Cultural Revolution' with rural health oriented programmes. The local people are trained in both modern and traditional health care methods during slack agricultural season. Depending on the availability of various health personnel and acceptance by the people, the Barefoot doctors work as links between the community and the available medical manpower. Their duties include treatment of minor ailments, organisation of health education programmes, 'Patriotic' health campaigns and general sanitation work in their locality. The work of these 'Doctors' is supposed by all those who are engaged in the preventive programmes. Recently, to increase manpower in this army of health, traditional doctors, oriented in modern medical methods, have been incoporated. These concepts are of basic importance since more manpower can be trained for a given health budget.[5]

Medical manpower in India:-

In India the problem of medical manpower is grave, even though the doctor to population ratio is 1 to 5112. In fact 80% of the doctors are not available for the 81% of the population who reside in villages.[4] As a result there is an acute scarcity of skilled medical men in the rural areas. The nurse to doctor ratio is 1:2 which is

well below the recommendation of 3:1. Moreover, wherever a doctor who could provide health care is available in rural area, he is busy providing medical relief to 100,000 population at the Primary Health Centre and has limited time and interest in preventive and promotional health care. The shortage of doctors is going to prevail for years to come as training of doctors is long and costly. All the developing countries are experiencing this problem which explains why the concept of maximum utilization of health auxiliaries is getting more and more popular.

In India various national health programmes are managed quite successfully through health and auxiliaries. The National Malaria Eradication Programme, the Leprosy Programme and the Small-pox Eradication Programme are examples. These auxiliaries are not substitutes for the doctors; their role is supplementary.

AN EXPERIMENT WITH VILLAGE-LEVEL HEALTH WORKERS AT HEALTH UNIT, PALGHAR:

The long-term planning for health has to be basic, comprehensive, preventive and promotive. As the first step to sow the seeds of health is in early childhood, the most vulnerable period, a W.H.O. aided project on "Domiciliary Management of Malnutrition" and Integrated health care for the children under five years was started at Health Unit, Palghar, Dist. Thana, Maharashtra, in August, 1972.[6] Here is an attempt to solve the local health problems in the village itself with the help of local persons. The project is designed to promote the health of the children under five years of age at the village level by continuous, co-ordinated, community care. Under this project part-time, village-level health workers, who are the key persons in the project, have been appointed. It is obvious that the problem of health and nutrition can not be solved by medical and more highly-trained para-medical personnel alone. Moreover, there is a need to cover a wider rural area with limited health personnel at a Primary Health Centre. Hence, the part-time, village-level health workers are appointed in this project to link the community with the existing health services.

Part-time, village-level Health Workers:

While appointing these part-time health workers an emphasis was given on selecting a local, middle-aged, mother with educational qualification up to 7th standard. However, four out of five workers have the educational qualifications of only the 4th or 5th standard.

Care was taken to select a person with leadership qualities. Those women are familiar to the local people and know the regional language, customs, attitudes and beliefs in child rearing. These women are culturally acceptable to the community and specially to the local women folks with whom they communicate in a better and more effective way than the outsiders. They have an easy access to the kitchen where the traditional policy of nutrition and child rearing of the family are determined by the dominating grandmother or mother-in-law. The part-time health worker takes part in their 'Kitchen meetings' and at times participates in "gossiping". The worker is trained in such a way that she introduces her advice in a culturally acceptable way. The nutrition advice is practical, scientific and feasible for the local conditions and meagre budgets.

The whole idea of appointing these health workers is to improve the services according to the values of society. Health planning must be pragmatic and take socio-economic aspects into consideration.

Five such part-time health workers have been appointed in this project. They are paid Rs. 60.00 per month and they work for four hours a day. Each worker looks after a total population of 2500 to 3000 in tow to four close-by k villages or hamlets. On an average these villages are at a distance of 4 to 6 kilometers from a sub-centre, head quarters of a nursing auxiliary, and are within 2 kilometers from the residence of the part-time workers.

TRAINING OF THE WORKERS:-

These workers were given training for three weeks, two weeks in the class-room and clinics and one week in the field. The training programmes were so arranged that they had practical experience of taking weights, recording them on weight charts, measuring heights and giving health and nutrition education to the mothers and others. They were trained in ascertaining birth dates by using local events calender. They were introduced to personal hygience, common communicable and nutritional diseases of children, immunisation, growth and development, and family planning. Emphasis was given to learning by active participation. Cases of common diseases were demonstrated to them in the clinics.

The class room training was followed by field training in the village of Umroli where a model programme has been going on for the last one and a half year. They were given assignments and the results were discussed with all the participants.

Job description and responsibilities of the part-time Workers:-

Every child under five years of age in twenty villages/hamlets has been covered by the five workers. The children needing special care and whose parents cannot come to the clinics because they are daily wage earners are treated at home. Other children are seen at the clinics. The job assignments, including the responsibility of the part-time health workers, are as mentioned below.

1. Census: to enlist the population at risk as well as all the household members by age and sex. The houses are given numbers. Census figures are brought upto-date every six months.

2. Sequential weighing and selection of beneficiaries for nutrition programme: Serial weighing is a practical and reliable measure of growth in children under five years. Birth date is decided according to a local events calender and then the weights are recorded periodically, according to age and nutritional status, (figs. 1&2) on weight charts[3] printed in Marathi. The Salter's weighing scale model No. 235 P with spring and dial is being used as it is an accurate, handy and economical. Figures on the dial of the weighing scale are given in the local language. The workers talk to the mothers about the weight curves on the charts, their importance in health and disease, and the necessity of timely regular recording of weights. They give advice on feeding to all the mothers at the clinics or in the homes.

   The part-time assistants are trained to determine the degree of malnutrition with the help of the weight curves within a fraction of a degree by means of a simple plastic folder over-lay designed for the project (fig.III). Accordingly, beneficiaries are classified for nutrition supplements and/or nutrition education. [7]

3. Listing 'Special Care' children: In each village they maintain a list of children who require 'Special Care'. The list indicates specifically which children must be seen by the nurse and/or the doctor when they visit the village. The status of these children is followed at the clinic and by home visits. The local community is made aware of the condition of these children. The following are the reasons for "Special Care".[3]

1. Those whose weight is below 60% of the reference standard;
2. Those who have difficulties in breast feeding and are put on bottle feeding before six months;
3. Those who fail to gain 0.5 kg. a month in the first trimester or 0.25 kg. a month during the second trimester of life,
4. Those Pre-term or low-birth weight babies weighing less than 1.5 kg;
5. Twin babies;
6. Those whose mothers have a history of death of more than two offsprings between the age of one and twelve months;
7. Those with severe or acute infections like measles or whooping cough,
8. Death of one of the parents;
9. Those whose birth order is fourth or beyond;
10. Sterilisation of one of the parents and
11. Only child after a long married life.

4. Under-Fives' Clinics: The part-time workers conduct clinics for children under five years of age. Every alternate clinic is attended by the nursing auxiliary, while the doctor visits once a month. The frequency of the clinics varies from thrice a week to once a fortnight depending on the population of a village. In each clinic 15-20 scheduled children are brought. They are held at places given by the local community. The clinic's timings are altered to suit the working mothers.

5. Immunisation: They organise immunisation campaigns for the children, by identifying and collecting the children due for immunisations when the nurse visits their village. They assist the nursing auxiliaries in carrying out immunisations.

6. Domiciliary visits: They go to visit the home of defaultors and also of the children listed as "Special Care". On an average each worker has to visit 7 to 8 homes per day. While on home visits they weigh the children (Fig.IV) and talk to mothers about feeding and other health matters. When simple drugs are prescribed for a child, these workers assist by delivering the medicine, continuing the therapy, and reporting the progress.

7. Nutrition Education: They advise on protective foods, their consumption, preparation and cost. They identify the dominant figure in the family and have a dialogue on health and nutrition education.

8. Health education: They give advice on personal hygiene and talk on growth and development, common diseases of childhood and their prevention.

9. Vital statistics: They collect information on births, deaths and migration.

10. Deworming and special programmes: They help in periodic deworming of the children in the villages where there is heavy infestation.

11. Planning of families: They advise on family planning to the eligible couples and motivate them at the time when all the children under five years in their family are progressing well on weight charts and

12. Referrals: They promptly refer the sick children to the nurse or to the doctor at the headquarters.

Community Participation:

These workers coordinate their activities in each village with the village health committee, nursing auxiliaries and other personnels of the health department. They have developed effective rapport with the women folks and the villagers. They bridge the 'Cultural gap' between the modern health services and the community at large.

Organisation:

To give an idea of the role of part-time health workers in the project, the organisation of the project is depicted in a chart (Fig.V). The project is designed to fit the existing health services and to help in extending and strengthening the health services. Two to three workers are under guidance of a nursing auxiliary and enable her to cover effectively a population of about 10,000.

Records:

After one year's experience in a pilot study at village Umroli, near Palghar, a new system of records has been devised. The records are minimised for nursing personnel. The same are simplified by means of weight charts and assignment identification and planning cards. The workers with the help of nursing auxiliary, fill-up the built-in evaluation tables.

Evaluation:

A project is divided into three main sudy groups (i) service oriented, (ii) Research oriented, and (iii) Evaluation oriented. The results of evaluation of nutritional status and immunisation status

can easily be read at a glance from the tables given below (Tables I & II).[2,7] The tables are completed by the nurse midwifes. This data is furnished every month which provides a built-in evaluation of the on-going programme.

It will be noticed from the above description that these health sorkers do not treat sick but prevent sickness and promote positive health. There is no danger of creatings 'quacks' as they are not going to cure diseases. Their purpose is to extend health care and preventive and promotional health.

Health Revelution: The Indian Way:

The aim of the project is to create a balanced programme for the future, both at the family and the community levels.[8] Here lies the difference between Indian Way of health care and the Chinese way. At Palghar, the mothers are oriented to help mothers and to extend compassionate care. India is a poor country like many other developing countries and can not afford the rising cost of therapy/ Revolutionary and economic ways of delivering health care need to be worked out. The responsibility of providing health care to all, even in the remotest village or hamlet must be met; in the existing conditions of limited medical manpower and finances, the system similar to Chinese 'Barefoot doctors', our part-time health workers, is the practical and necessary approach to health care. These 'Workers' can help to bringing about the "Health Revelution".

The experiment with the part-time health workers is only nine months old and it has shown promising results with reference to nutrition, growth, morbidity and even mortality. It has been observed that 75 to 80% of the deaths in the under fives' were from the group of these needing special care. The workers have already gained fairly good confidence of the community. It should be possible to extend their f field of activites, in the future to the pregnant and lactating mothers.

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T A B L E - II

EVALUATION OF IMMUNIZATIONAL STATUS

Village Month:

Age Group	Total No. of Children	Immunisation given									Remarks
		Smallpox	BCG	D.P.T.							
				I	II	Booster	I	II	III	Booster	

N.B. :- Please write in brackets the percentage of children immunisation.

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Maharashtra-3

THE KASA MCHN PROJECT

Integrated Mother-Child Health-Nutrition Model

PRIMARY HEALTH CENTRE, KASA

Sponsors: Government of India, Government of Maharashtra

and CARE-Maharashtra

Administered by:

CARE-Maharashtra

STANDING INSTRUCTIONS TO THE NURSES AND PART-TIME SOCIAL WORKERS

FOR

THE TIMELY HEALTH CARE OF CHILDREN AND MOTHERS

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IMPORTANT

Do's

1. Wash your hands after examining a patient
2. In case of doubt always refer the cases to the Medical Officer
3. Check the weight chart of the patient to find the Nutritional Status and Immunization Status
4. Make entries in the treatment sheets of the cases
5. Always maintain a record of the cases.

Don'ts

1. Do not treat any patient with dirty or unclean hands
2. Do not give medicine to a patient for more than 2 days unless prescribed by the Medical Officer.

Guidelines for Treatment of Simple Illness

Illness	Symptoms	Treatment
URI (Upper respiratory tract infection)		
1. Upper respiratory tract infections without fever	1. Running of nose, cough sore throat for less than 10 days without fever	1. No drugs to be used. In small children nasal passage should be cleaned with moist cotton plugs, particularly when there is difficulty in breathing through the nose and at night time.
2. Upper respiratory tract infection with fever	2. Cold, cough or sore throat over 10 days duration associated with a) fever less than 38.5°C body temperature	2. Treat with Sulphadiazine and Aspirin or Paracetamol tablets, as below: a) Sulphadiazine Infants = 1/2 tablet — 3 or 4 times a day 1-4 yrs = 1 tablet — 3 or 4 times a day Above 4 yrs = 2 tablets — 3 times a day Sulphadiazine should not be given for more than 5 days.
	b) fever more than 38.5°C body temperature.	b) Paracetamol/Aspirin tablet along with tepid sponges Infants = 1/4 to 1/3 tablet 1-3 yrs = 1/3 to 1/2 tablet 3-6 yrs = 1/2 to 3/4 tablet Above 6 yrs = 1 tablet Paracetamol or Aspirin should be given immediately. Repeat dosage if fever does not come down within half an hour. Do not give tablets on an empty stomach. Also give Sulphadiazine tablet as above for five days. Always give tablets to young children in powdered form mixed with jaggery or honey.
		REFER CASE TO MEDICAL OFFICER a) If the respiration rate of the child is fast i.e. above 40/minute, b) If child looks very ill, c) If child does not respond to treatment within 2 days.

Illness	Symptoms	Treatment
3. Fever	3. Body temperature above 38.5°C may be associated with cough and cold	3. Give paracetamol tablets in doses as noted in item (2) Also give cold sponges. For children give plenty of fluids orally. Associated cough and cold should be managed simultaneously. REFER TO MEDICAL OFFICER a) If the fever persists for more than 3 days, b) If the fever is associated with chills & rigors. Also take blood smear to confirm an attack of Malaria, c) When child is delirious or is having convulsions. As first-aid, give Aspirin, or Paracetamol tablet as noted in item (2) and cold sponges. Doctor should be consulted immediately.
4. Measles	4. High fever for about 4 days, followed by the appearence of rash. May be associated with severe cough or diarrhoea.	4. Treatment is symptomatic. Give Paracetamol/Aspirin tablets in doses as noted in item (2). Cough, when severe, should be treated with cough sedative mixture or syrup. Treat diarrhoea if it is associated. These children should be given plenty of fluids - water, milk, tea and semi-solids - a soft diet. If the parents refuse to administer medicine before the rash subsides, advise plenty of fluids and a frequent soft or semi-solid diet. Also advise eye drops for sore eyes. After the rash subsides, if the child still has fever or cough, treat him accordingly. REFER TO MEDICAL OFFICER a) If severe cough persists after the rash has subsided, b) If the respiratory rate is fast, i.e. more than 40/minute and there is indrawing of intercostal and subcostal spaces, c) If the fever continues after the rash subsides. d) Soreness of the eyes persists for more than 3 days.

Illness	Symptoms	Treatment
5. Diarrhoea and Vomiting	5. Vomiting and/or passing of more than 4 semisolid stoole	5. Administer, orally, water and Electrolytes powder; this prevents dehydration and death. When the child has more than 4 semisolid or watery stools in a day, he/she should be given Water-electrolytes formula. Dissolve 1 packet of Electrolytes in 4 glasses of water. In case of mild diarrhoea, give 2 to 3 glasses of Water-electrolytes. In cases of moderate to severe diarrhoea give 4 to 6 glasses of Water-electrolytes in 24 hours to a child of 6 months to 2 years of age. When Electrolyte powders are not available, prepare a solution of 6 teaspoons of Sugar and 1 teaspoon of Salt in 4 glasses of water. If the child is on breast feeding, it should be continued. Continue other feeding as before. In case of moderate to severe diarrhoea, advise breast milk or cream-free milk, banana and tea decoction. In cases of mild diarrhoea of duration of less than 2 days, drugs need not be given. In case of moderate-to-severe diarrhoea, or when diarrhoea is associated with fever, or when a mild attack does not subside after 2 days, give Sulphadiazine tablets. The dosage is same as in item No. (2). When there is associated vomiting give Largectyl tablet (25 mg). The dosage is Infants = 1/4 tablet 1-5 yrs = 1/3 tablet This should be given along with jaggery or honey. REFER TO MEDICAL OFFICER a) If the vomiting persists even after the administration of Largectyl tablet.
6. Conjunctivitis	6. Red eyes with discharge	6. If there is profuse discharge from the eyes, clean them frequently with sterile Saline water. Administer Sulpha cetamide eye drops, 2 to 3 times a day. For children under 2 years of age, use 10% solution.

Illness	Symptoms	Treatment
		and for children above 2 years use 30% solution. If eye drops are not available then use Penicillin or Terramycin eye drops twice a day. In cases with very sore eyes and associated fever give Sulphadiazine or Paracetamol tablet according to the prescribed doses (see item 2). REFER TO MEDICAL OFFICER a) If there is no improvement within 4 days of starting of the treatment, b) If the child has night blindness or other signs of Vitamin A deficiency, c) If it is impossible to open the eye of the patient and see the cornea, d) If there is corneal opacity or ulcer.
7. Otorrhoea	7. Discharge or infection	7. Clean the outer ear with dry cotton swab, 4 to 5 times a day. DO NOT put a stick into the ear to clean the inside of the ear. DO NOT put any oil or medicines into the ear. Give injection of Benzathin Penicillin. The dosage is for children under 2 years = 300,000 Units 2-6 years = 600,000 Units Above 6 years = 1200,000 Units every week, for 3 to 4 weeks. Or treat with Sulphadiazine for 7 days. If there is only pain in ears and not otorrhoea, then treat for possible throat infection with Paracetamol/ Aspirin and Sulphadiazine. Make sure that the child with discharge from ears has been given DPT vaccine. Give a booster dose of Tetanus Toxoid. REFER TO MEDICAL OFFICER If otorrhoea continues even after treatment is given.

Illness	Symptoms	Treatment
8. Pyroderma (Boils)		8. Instruct the parents to bathe the child every day. If boils are very few, apply Gentian Violet 10% or Sulphadiazine or Furacine ointment, locally. If there are many boils or there is associated fever, then give Sulphadiazine tablets for five days. Boils, when associated with scratching, or when other members of the family have itching or multiple boils or when boils are between fingers, are symptoms of Infected Scabies. Give the child . Sulphadiazine tablets along with treatment for Scabies. Cut the nails to minimize injury due to scratching and secondary infection.
9. Round Worm	9. Passing of round worms with stools.	9. Give a single dose of Piperazine tablet at bedtime. The dose is one tablet per year of age. The tablet should be crushed and given with honey or jaggery in a single dose.
10. Head lice		10. Dispense DDT powder mixed with coconut oil or other oil, and cover the head, This should be applied just before bedtime. Wash the hair and comb the next day. Repeat the same treatment after a week. It may be necessary to treat the entire family.
11. Malnutrition		11. Enrole and give Nutrition Supplement, daily, to all severely malnourished children weighing less than 65% of the reference weight. Prepare weight charts and assess the nutritional status of these children periodically. Advise parents on the proper and frequent feeding of the child. For associated Anemia give one Iron-folic acid tablet twice a day. For associated Vit. A deficiency give massive Vit. A (oral - 200,000 units) on alternate days for 5 times. Treat cough, cold and fever with Sulphadiazine or Penicillin tablets.

Illness	Symptoms	Treatment
		Treat Diarrhoea with Water-electrolytes solutions. Treat roundworm infestations with Piperazine tablets. Treat all associated illness, at first contact, and if need be, refer to the medical officer early. REFER TO MEDICAL OFFICER a) If associated fever is high b) If associated diarrhoea is severe c) If there is breathlessness d) If there is swelling on legs
12. Severe anemia	12. Severe or moderate pallor	12. Treat with Iron-folic acid tablets. Dosage Infant - 1/2 a tablet, twice a day for a month Children - 1 tablet, twice a day for a month. REFER TO THE MEDICAL OFFICER 1. If pallor does not respond to treatment, even after 15 days. 2. If there is severe pallor with swelling on legs 3. If there are a number of children in the family or hamlet or the village who have moderate or severe pallor.

PMS:MS:sc

Guidelines for Management of the "At risk" Children

The following should be the management of "at-risk" children under 6 years of age. All the at-risk children should be seen by the ANM/NM or Male Multipurpose Worker.

Condition	Management
1. (a) If a child weigh 65% (IIA grade of malnutrition) of the reference weight or less or (b) If a child fails to gain weight for 3 successive months or (c) If a child loses weight for 2 successive months.	1. (a) Provide nutrition supplements and make arrangements so that those are eaten by the beneficiary child (b) Explain to the parents about malnutrition with the help of the weight chart. Advise on what and how frequently the child should be fed by them or mother-substitutes. (c) Weigh these children frequently. Treat associated illnesses like diarrhoea, fever and cough, worms, severe anaemia or vitamin A deficiency REFER TO THE MEDICAL OFFICER If the "at-risk" child does not improve.
2. If a child weighs less than 1.5 kg at birth	2. Advise the mother to breast feed the child every 2 or 2½ hours. When the weight becomes equal to grade I malnutrition drop the child from special care list. REFER TO THE MEDICAL OFFICER 1) If there is a lactation failure 2) If the child is not taking feeds 3) If the weight of the child does not increase.
3. If a child has an attack of severe diarrhoea or measles	3. See under illness list for management REFER TO THE MEDICAL OFFICER If the condition of the child does not improve within 48 hours of starting the treatment.

PMS:NS:sc

Guidelines for Treatment of Obstetric and Gynaecological Problems

MIDWIFERY PROBLEMS

A. Problems during First Trimester (first three months)

Problems/conditions/symptoms	Treatment/Management
1. Constipation	1. Advise the woman to eat green leafy vegetables and to drink a glass of water in the morning.
2. Nausea and vomiting	2. Advise the woman: To eat foods which she likes; the intake should be small but frequent; to avoid fluids in the morning; take only solid and semi solid foods; that nausea and vomiting will stop after 10 - 12 weeks of pregnancy. Give tablets Vitamin B_6 (Pyridoxin or Arcoloxin) to be taken in the morning (if vomiting persist). Dosage: 1 tablet for 4 to 5 days. REFER TO MEDICAL OFFICER If the woman is not able to retain any fluid/food intake and vomits more than 4-5 times a day.
3. Retention of Urine (May be due to retroverted gravid uterus)	3. The ANM should Catheterize the woman. Advise the woman to lie in knee chest position for 10-15 minutes, 3 to 4 times a day.
4. Burning in micturition	4. Give tablet of Sulphadiazine Dosage: 2 tablets 3 times a day Plenty of water must be taken.
5. Slight bleeding per vaginum	5. Advise complete bed rest.
6. Profuse bleeding per vaginum	6. This woman is about to abort. After the complete abortus is expelled. Give Methergine tablets. Dosage: 1 tablet 3 times a day for 2 or 3 days.

Problems/conditions/symptoms	Treatment/Management
	REFER TO MEDICAL OFFICER 1) If the profuse bleeding does not stop 2) If the complete abortus is not expelled. At the PHC the uterus should be evacuated. 3) If along with the bleeding vesicles are also passed.
7. Fever	7. Give tablet Sulphadiazine Dosage: 2 tablets 3 times a day plenty of water <u>must</u> be taken
8. Diarrhoea (loose motions)	8. Give Sulpha guanedine tablets. Dosage: 2 tablets 4 times a day Advise plenty of fluids REFER TO MEDICAL OFFICER If the diarrhoea/loose motions does not stop within 3 days.
9. Anaemia	9. Treat with Iron tablets Dosage: 2 tablets twice a day till required. Advise the woman to eat green leafy vegetables. REFER TO MEDICAL OFFICER 1) If there is severe pallor 2) If the condition does not improve

B. <u>Problems in Second Trimester (4th, 5th & 6th month)</u>

<u>Note</u>: All problems under first trimester can occur in second trimester also and should be managed/treated as specified

10. Heart burn	10. Advise the mother to chew Gelusil tablets Dosage: 1 tablet 2 or 3 times a day while condition persists.

Problems/conditions/symptoms	Treatment/Management
11. Swelling of feet	11. Press over the bone with thumb. Watch for prolonged depression, Examine the urine for Albumin. If Albumin is present get the BP checked at PHC. If the BP is normal advise rest and if the BP is high advise the mother to avoid salt in foods, avoid eating pickles, chutney and papad. REFER TO MEDICAL OFFICER If the BP is high
12. Vitamin/mineral supplementation therapy	12. Give Vitamin/mineral tablets to all pregnant women. a. Iron tablets Dosage: 1 tablet twice a day after meals. b. Folic acid tablet (5 mg) Dosage: 1 tablet twice a day. c. Calcuim Lactate tablets Dosage: 2 tablets twice a day.

C. Problems in Third Trimester (7th, 8th & 9th month)

Note: All problems under I & II trimester can occur in III trimester and should be managed/treated as specified.

13. Slight bleeding with uterine contractions	13. The women might deliver prematurely. Send her to PHC immediately or conduct the delivery there.
14. Bleeding P V	14. Without doing internal examination send the patient to the PHC.

D. Predelivery

REFER TO THE MEDICAL OFFICER IF ONE OR MORE CONDITIONS OCCUR

1. If the pregnant women has history of
   a. Abortion
   b. Still births
   c. Premature deliver

Problems/conditions/symptoms	Treatment/Management
d. Caesarian section e. Bleeding per vaginum during this pregnancy f. Leaking membrane	
2. If the pregnant women is over 30 years and this is her first pregnancy	
3. If this is pregnant women's 5th or later child	
4. If the pregnant women has multiple pregnancy (twins)	
5. If the pregnant women has abnormal presentation of the child in the uterus	
6. If the pregnant women has severe Anaemia	
7. If the pregnant women has swelling in the legs, Albumine in urine and high blood pressure	
8. If the pregnant women has Jaundice	

Preventive health care

1.	Immunization during antinatal period	1. Give the woman Tetanus toxoid Schedule: 2 shots given at 2 months interval.
2.	Weight	2. Record the mothers weight on her chart
3.	Diet	3. Advise diet as per the availability, habit and liking of the mother.

Delivery

While conducting normal delivery carry out the following:

1. Take complete aseptic precautions while conducting delivery.
2. Give simple enema.
3. Ask the pregnant woman to pass urine frequently. This will keep the urinary bladder empty.
4. Give the pregnant woman fluid diet like tea, milk gruel etc.
5. Ask the patient not bear down till the cervix is fully dilated
6. Maintain flexion of the baby's head. Press Occiput with your left hand fingers till the baby's head comes ou of pubic symphysis.
7. Keep the pad on perinium with your right hand.
8. Deliver the baby. Hold the baby's head end at low level. Clean the baby's air passage with Sterile gauze piece wrapped on your little finger.
9. Clamp the cord. Cut the cord with scissors or blade cleaned with spirit at a distance of 1½ to 2".
10. Do not press the uterus to deliver the placenta. Have a cord traction. Apply final pressure only when placenta is seperated.

Problems/conditions/symptoms	Treatment/Management
11. If there is bleeding after delivery do bimanual massage. REFER to the medical officer if the bleeding does not stop.	
12. If the placenta is retained, do not pull the cord or press on the uterus. REFER the woman to PHC.	
G. Post Delivery	
1. Puerperal Sepesis Slight fever with foul smelling discharge from vaginum	1. Treat with Sulphadiazine Dosage: 2 tablets 3 times a day for 5 days. REFER TO MEDICAL OFFICER If the condition does not improve.
H. Family Planning	
1. Family Planning methods	1. Advise the mothers to adopt a family planning method. Advise mothers with 1 child to use oral pills or IUCD (loop). Advise mothers with 2 children or more to adopt a permanent method tubectomy or vasectomy of her husband.
I. Gynaecological Problems	REFER TO MEDICAL OFFICER
1. All Gynaecological problems	As these require Bimanual and persepeculum examination.

PMS:NS:sc

COMPREHENSIVE RURAL HEALTH PROJECT, JAMKHED

STANDING ORDERS

UNDER-FIVES

I. A. DIARRHOEA

Signs and Symptoms. Loose bowel movements, more than three times, with or without fever. May be present with cold, ear infection, etc.

Treatment.
1. Advise plenty of fluids, sugar water with a pinch of salt.
2. Pectokab, 1 tsp. with every stool.
3. Sulphamezathine.
4. Baby aspirin for fever p.r.n.

B. DEHYDRATION

Causes. Diarrhoea, vomiting or fever.

Signs and Symptoms.

ASSESSMENT OF DEHYDRATION BY FIVE CLINICAL SIGNS

	Appearance	Skin Elasticity*	Anterior Fontanelle	Eyes	Mouth
MILD	Fretful	Normal or slightly reduced	Normal or slightly depressed	Normal or slightly sunken	Dry, red
MODERATE	Restless	Moderately impaired	Moderately sunken	Sunken	Very dry, slight cyanosis
SEVERE	Semi-coma	Severely impaired	Deeply sunken	Deeply sunken, 'staring'	Very dry, cyanosed

*Note: Do not rely on skin elasticity in the presence of malnutrition.

Treatment. Fluid replacement.

1. Fluid requirements first 24 hours:
   Mild dehydration-90 cc/lb body weight.
   Moderate dehydration-110 cc/lb body weight.
   Severe dehydration-refer immediately to Jamkhed clinic after giving initial 100 cc. subcutaneous saline.

3. Treat cause of dehydration.

II. FEVER

Causes.

A. UPPER RESPIRATORY INFECTION

Signs and Symptoms. Fever, running nose, cough, and sometimes vomiting.

Treatment. 1. Baby aspirin.
2. Sulphamezathine.
3. Cough sedative.
4. Plenty of fluids and normal diet.

B. EAR INFECTION

Signs and Symptoms. May be as above with ear ache, ear discharge, ear-drums red and tender.

Treatment. 1. As above.
2. Local treatment: a) Antibiotic eardrops.
b) Hydrogen peroxide (H_2O_2).

III. PNEUMONIA

Signs and Symptoms. Patient looks sick, rapid respiration with alae nasi working, chest pain, high fever, cough. May be restless. Rales heard and poor air entry.

Treatment. 1. Plenty of fluids.
2. Normal diet.
3. Aspirin.
4. Antibiotics-Procaine Penicillin, 4 lakhs.
5. Refer to hospital.
6. Inhalation

IV. MEASLES

Signs and Symptoms. Cough, fever, redness of eyes, running nose, rash appears (4th day), on face, trunk, extremities, irregular, maculo-papular.

Treatment. 1. Plenty of fluids and food, normal diet.
2. Aspirin.
3. Antibiotics to prevent complications, such as otitis, pneumonia, diarrhoea-Sulphamezathine.

V. PERTUSSIS

Signs and Symptoms. Persistent cough, often with whoop, fever, running nose, and red eyes.

Treatment. 1. Chloromycetin.
2. Phenobarb.
3. Cough sedative.
4. Aspirin.
5. Adequate fluids and frequent small feeds.

VI. FEBRILE CONVULSIONS

Signs and Symptoms. Fever due to any cause and convulsions involving one or more extremities.

Treatment. 1. Give paraldehyde, 1 cc per year of age, I.M.
2. Cold sponging and aspirin.
3. Phenobarbitone.
4. Treat cause of fever.
5. Refer to hospital.

VII. ROUND WORMS

Treatment. For children up to 5 years, Piperazine liquid, 1 tsp. t.i.d. x 2 days.
For children 5 years to 12 years, Piperazine ii t.i.d. x 2 days.

VIII. IMPETIGO

Signs and Symptoms. Repeated boils.

Treatment. 1. Inject Procaine Penicillin, 4 lakhs, I.M.
2. Sulphamezathine.
3. G. V. ointment.
4. Advise to wash and scrub with soap and water.

IX. SCABIES

Treatment. 1. Benzyl benzoate for external use.
2. Wash and boil clothes and dry in sun.

X. SORE EYES

Treatment. Apply penicillin eye ointment.

XI. TRACHOMA

Signs and Symptoms. Small granules in eye lids (patient complains of sand in eyes).

Treatment. Sulphacetamide drops to eyes.

ADULTS

I. FLU, UPPER RESPIRATORY INFECTION

Signs and Symptoms. Headache, feeling weak, cough and fever, 1-4 days.

Treatment. 1. Plenty of fluids.
2. Normal diet.
3. Aspirin.
4. Inject Novalgin, 2 cc I.M., if necessary.

II. PNEUMONIA

Signs and Symptoms. Fever, cough, chest pain, shortness of breath, rapid breathing, alae nasi working. Rales heard over one or both sides of chest.

Treatment.
1. Inject Terramycin, 250 mgm. I.M.
2. LAS i q.o.d. x 1 day.
3. Aspirin ii t.i.d. x 1 day.
4. Cough sedative i t.i.d. x 1 day.
5. Advise hospitalisation or consultation with doctors.
6. Plenty of fluids and normal diet.

III. TYPHOID

Signs and Symptoms. Fever, body ache, coated tongue, patient looks sick. Cough, diarrhoea or constipation, abdominal distension.

Treatment.
1. Chloromycetin ii tablets q.i.d.
2. B Complex.
3. High protein diet with plenty of fluids.
4. Advise hospitalisation.

IV. PEPTIC ULCER DISEASE

Signs and Symptoms. Epigastric pain, acid eructations, pain increases after hot food or on empty stomach.

Treatment.
1. Magnesium trisilicate ii t.i.d.
2. Belladonna tab i t.i.d.
3. Advise small, frequent food.
4. Bland diet.

V. DIARRHOEA AND VOMITING

Signs and Symptoms. Loose bowel movements and abdominal pain. Abdomen soft, generalised tenderness but no gourding.

Treatment.
1. Diarrhoea tab ii t.i.d. x 1 day.
2. Sulphamezathine ii t.i.d. x 2 days.
3. Plenty of fluids.
4. Diligan i p.r.n. for vomiting.
5. If severe, start I.V. fluids.

VI. ARTHRITIS

Signs and Symptoms. Joint pains in one or more joints.

Treatment.
1. Aspirin ii t.i.d. x 3 days.
2. Methyl salicylate for external use.
3. If having extreme pain, inject Butazolidine 3 cc, deep I.M.
4. Advise consultation with doctor.

VII. RHEUMATIC FEVER

Signs and Symptoms. Fever, fleeting joint pains, mainly of large joints. Very tender and swollen. Rapid pulse. History of previous attack often present. Ask for history suggestive of heart disease, such as chest pain, shortness of breath, cough.

Treatment. 1. Aspirin ii t.i.d.
2. Bedrest.
3. LAS i q.o.d.
4. Inject Butazolidine, 1 amp I.M., if necessary.
5. Advise consultation with doctor.

VIII. BRONCHIAL ASTHMA

Signs and Symptoms. Repeated attacks of difficulty in breathing, wheezing, cough and mucoid sputum. Prolonged expiration with generalised rhonchi.

Acute attack treatment. 1. Inject Adrenaline ½ cc subcutaneously.
2. Aminophylline i t.i.d.
3. PET i h.s. q.o.d.

Chronic treatment. 1. Aminophylline i t.i.d.
2. PET i h.s. q.o.d.

ANTENATAL CARE

Complete obstetrical history.

Danger signs needing hospital referral:

1. Anaemia, homoglobin below 9 grams.
2. Bleeding after previous delivery or during this delivery.
3. Any baby born dead or after difficult delivery, forceps or Caesarian.
4. Swelling of hands or face.
5. Diastolic blood pressure over 90 mm Hg.
6. Breathlessness with heart murmur or cough or sputum for 1 month.

I. REGULAR ANTENATAL CARE

1. Two doses of Tetanus Toxoid during pregnancy.
2. Fersolate i daily.
3. Calcium gluconate i daily.
4. B Complex i daily.
5. Family planning advice should be given at each ANC visit.

II. TOXAEMIA OF PREGNANCY

Signs and Symptoms. Any two of the following present:

1. Albuminuria.
2. High blood pressure, diastolic above 90 mm Hg.
3. Swelling of face or extremities.

Treatment. 1. Advise low salt diet.
2. Diuril i on alternate days.
3. Rest.
4. Advise consultation with doctor. Warn patient about dangers of eclampsia.

III. VOMITING OF PREGNANCY

Treatment. 1. Diligan i p.r.n.
2. Vitamin B_6 i daily.
3. ANC pack

If persistent and uncontrollable, consult with doctor.

IV. ANAEMIA OF PREGNANCY

Treatment. 1. Folic acid i b.i.d.
2. Fersolate i t.i.d.

If hemoglobin below 9 grams, refer to hospital.

TUBERCULOSIS

Signs and Symptoms. Fever, especially in the evening, loss of appetite, loss of weight, cough of more than two weeks duration, hemoptysis. To confirm diagnosis: 1) collect sputum for AFB x 3, 2) advise chest x-ray and screening.

Treatment. 1. Streptomycin.
2. Isozone Forte.
3. Multivitamin.
4. Cough sedative.
5. Good nutrition, no diet restriction.
6. Advise patient to cover mouth while coughing.

Contacts. (a) Treat all contacts with INH
(1) Adults-300 mgm. daily.
(2) 5-12 years-200 mgm. daily.
(3) 2-5 years-100 mgm. daily.
(4) below 2 years-50 mgm. daily.
(b) Advise chest screening of all contacts.

LEPROSY

Signs and Symptoms. Anaesthetic patches, thickened greater auricular, ulna and lateral popliteal nerves. Loss of sensation in hands and feet and motor weakness of fingers. Loss of eye brows, thickening of skin, especially ear lobes. Trophic ulcers. Take skin clip for AFB.

Treatment: 1. L.D.S. dosage schedule:

(1) 5 mgm. twice a week x 4 weeks.
(2) 10 mgm. twice a week x 4 weeks.
(3) 20 mgm. twice a week x 4 weeks.
(4) 25 mgm. twice a week x 4 weeks.
(5) 25 mgm. 4 times a week x 4 weeks.
(6) 25 mgm. 6 times a week x 4 weeks.
(7) 50 mgm. 6 times a week x 8 weeks.
(8) 100 mgm. 6 times a week.

2. Examine eyes for corneal ulceration and give Sulphacetamide drops.
3. Trophic ulcers should be taken care of with acriflavine dressing, penicillin ointment, magnesium sulphate soaks.
4. Glycerin for dry nasal mucous membranes.

Treatment for D.L.S. reactions (in order):

(1) Rest, aspirin.
(2) Chloroquine i t.i.d. x 3 days.
(3) Lamprene i on alternate days, increasing to i daily, if necessary.
(4) Precin.

Contacts. Treat all contacts of lepromatous and indeterminate cases with D.D.S.

DRUG REACTION

Drug reaction may be mild, moderate, or severe.

I. Mild reaction, such as urticaria and drug rash may occur immediately to one week after drug has been started.

Treatment. 1. Stop the drug causing reaction.
2. Benadryl, 50 mgm. t.i.d. or q.i.d.

II. Moderate reaction. occurring within few hours of intake of drug, urticaria, vomiting, diarrhoea, dizziness, fallin blood pressure.

Treatment. 1. Inject Synopen 1 amp I.M.
2. Inject Adrenaline 1 cc, if necessary.
3. Benadryl 50 mgm. t.i.d. or q.i.d.
4. If hypotensive, intravenous fluids should be started.

III. Severe reaction (anaphylactic shock), immediate shock-like and frequently fatal reactions which occur within minutes of administration of drugs. Three syndromes of anaphylaxis may be recognised: 1) laryngeal edema, 2) bronchospasm, and 3) vascular collapse.

Signs and Symptoms. Apprehension, paraesthesia, generalised urticaria, choking sensation, cyanosis, wheezing cough, incontinence, shock, fever, dilatation of pupils, loss of consciousness and convulsions, death may occur within 5-10 minutes. Therefore, treatment must be started immediately and emergency drugs must be available wherever injections are given.

Treatment. 1. Adrenaline 1 cc I.M. immediately.
2. Place patient in shock position.
3. Maintain adequate airway.
4. Inject Synopen 1 amp I.M.
5. If patient has not responded to adrenaline, give Betnesol I.V. 2 ampules.
6. For hypotension, start intravenous fluids with noradrenaline 4 mgm. in 1 litre of saline.
7. O_2 (oxygen).
8. For bronchospasm (wheezing), give aminophylline I.V. slowly.

REFERENCE TABLE

DRUG DOSAGE IN CHILDREN

	0-6 mos.	over 6 mos.- 1 year	1-4 years	4-10 years
Baby Aspirin	½ tab t.i.d.	1 tab t.i.d.	2 tabs t.i.d.	Adult ASA t.i.d.
Sulphamezathine	½ tab t.i.d.	1 tab t.i.d.	1 tab t.i.d.	1 tab q.i.d.
Phenobarbitone	5 mgm. t.i.d.	7½ mgm. t.i.d.	10 mgm. t.i.d.	15 mgm. t.i.d.
Chloromycetin	100 mgm. t.i.d.	200 mgm. t.i.d.	250 mgm. t.i.d.	250 mgm. q.i.d.
Paraldehyde	1 cc per year of age			
Streptomycin	200 mgm. per day	400 mgm. per day	½ gram per day	½ gram per day
INH	50 mgm. per day	50 mgm. per day	100 mgm. per day	200 mgm. per day

Maharashtra – 2

No. 6

C O N T A C T   10

Christian Medical Commission World Council of Churches 150 Route de Ferney 1211 Geneva 20 Switzerland

August 1972

COMPREHENSIVE RURAL HEALTH PROJECT
Jamkhed, India

Rajanikant S. Arole, MD

(Address given to the CMC at its annual meeting in June 1972)

My wife and I were both concerned about the medical care of the rural population of India, and soafter graduation we both went to a hospital situated in a rural area and worked there for about five years. To our amazement, at the end of five years, we found that all we had done was to take care of patients who came to the doorsteps of the hospital, but we had done little for the general health of the community around us. To give you a simple example, we served a populatioon of about 100,000. There must have been 4000 deliveries each year, but we were taking care of only 300 of them. We asked ourselves, "What happened to the remaining 3700 deliveries?" There was nobody besides us in the area.

Examples such as this made us realize our need for public health training to enable us to reach out to the community. Therefore, we went to Johns Hopkins University and took a public health course. A lot of material that we read came from the Christian Medical Commission. The books and articles written by many members of this Commission helped us to formulate a programme.

Since the problems in rural areas relating to health are many, we set the following priorities:

1. To make available facilities and personnel in rural areas;

2. to do something about the rapid population explosion;

3. to attempt to reduce the high infant mortality and continued mortality and morbidity up to the age of five;

4. to take care of certain chronic diseases which not only contribute to mortality but also morbidity in the society and which, more than that, deprive the people of their dignity, especially those suffering from leprosy.

So the goal was to develop a programme which would be fitted to the needs of the community but which would also be compatible with the resources available to the community.

The METHOD we adopted was to take a specific area for our responsibility. The selected area is within a ten mile radius of a village called Jamkhed in Maharashtra State. This area has a total population of 80,000 living in 55 villages. We cannot take cate of the whole area right now, so we have PHASED this as follows:

Phase 1   20,000 population – in two years
Phase 2   40,000 population – in the next two years
Phase 3   80,000 population – by the end of six years

The method will be to establish a main centre in the central area – i.e. at Jamkhed – where we shall have diagnostic help, facilities for emergency surgery and emergency medical care. The ~~threx~~ there will be ten subcentres in ten surrounding villages, the maximum distance between the central village and the subcentres being ten miles. For this programme we will need to use auxiliary workers and paramedical workers; we will need the cooperation and involvement of the indigenous ~~parx~~ practitioners, other health officials, schoolteachers and dais (indigenous midwives). There will be cooperation with other government programmes. And finally at the end of six years this will have to be a self-supporting programme. For a programme to be self supporting, motivation will have to be developed in the community nd the community leaders, the local state and the central government taking responsibility for this kind of work.

Objectives

1. reduce birthrate from 40/1000 to 30/1000

2. reduce under-fives' mortality by 50 per cent

3. identify and bring under regular treatment leprosy and tuberculosis patients

4. train indigenous workers and offer field training to health workers

To achieve our objectives, the main activities will be

- the establishment of under-fives' clinics - these clinics should be mainly for supplementary feeding programmes, immunization, treatment of minor illnesses;

- family welfare programmes consisting of antenatal care, delivery and postnatal care;

- family planning programmes making use of all known contraceptive devices and operations;

- detection of leprosy and tuberculosis patients and treating them in a well-integrated programme;

- curative services in the main centre for obstructed labour, acute surgical and medical emergencies and diagnosis;

- mobile clinics;

- school health programme.

This, in short, is a summary of the project we are trying to develop. Today I am going to share with you mainly the community involvement in arriving at certain decisions in regard to the programme.

While we were studying in the United States, we decided that we would go to an area where there was no Christian witness because we wanted to establish a Christian witness in an entirely non-christian area. Secondly, we wanted an area where there was an acute need for medical care and where was no possibility of any future development, not only development in the health field but also in other fields, so that after five years there would be no other factors to account for the changes that take place. We chose this area in Maharashtra, where there is no possibility of any major industrial or agricultural changes planned for the next five years. This area, like many other rural areas of India, has a very strong caste system. About 50 per cent of the people are cultivators or farmers; 20 per cent are untouchables - the people who are very poor and usually landless labourers - who socially have no status. The villages have a governing board with an elected head called Sarpanch. Most of the leadership comes from the farmer caste who are the decision-makes for the community. In addition to these two castes, there are wealthy farmers, schoolteachers and other educated government employees who are the accepted leaders of the community. One cannot enter any community by passing the leaders because if a leader feels that he has not been given due recognition, he can become hostile and uncooperative.

We were completely unacquainted with the community and leaders of this area. We wrote several letters in the local language to the political leaders and to the village leaders. In our letters we described the entire programme that we had in mind. We said, "If you want us to come into your area, there are certain things that you should be prepared to do. We shall be about 20 to 25 health workers coming into your area without having any housing facilities. We expect you to make some arrangements for accommodation for about 20 people. You should also give us temporary buildings for our clinics and our diagnostic facilities, and if after a six-month period we find that your interest in us remains, you should donate us land to build permanent structures in your area".

There were varied reactions to our letters. In one area (my home village) wealthy farmers who owned sugar factories wanted to build a modern, well-equipped

hospital to cater to their own curative needs. In another area the influential indigenous practitioner felt threatened, so he did all he could to prevent dialogue with the community leaders in his village. In a third village there was a community leader responsible for health planning of a district of 2 million people, and he immediately saw the benefits for his area in our proposal. There was also a minister at the state level, a state of 32 million people who happens to come from this area. These two saw the many advantages for their community and saw the political advantages for their own re-elections. Therefore, they went into the community, into different villages, and got resolutions passed by these villagers inviting us to come and start work in this area.

As stated, we laid conditions under which we would be willing to go to the area, and they were willing to fulfill these conditions. They emptied out an old veterinary dispensary, about 30 x 10 ft, which we used as our outpatient department. They gave us a storage place for inpatients and rented a place for us to live. It was a very simple arrangement - no electricity, no running water and all 20 of us having to live in a 20 x 30 ft area.

We started work in real earnest in January 1971. We formed a consultative committee which consisted of not only members of this local village but others from different areas, representing different communities, especially the poor 'harijan' (untouchable) community. The first responsibility we gave this committee was to find accomodation for us and accommodation for our health centre. We then asked them to find us staff. Most of our staff, like nurses and paramedical workers, had to be brought from the city. This staff had to be Christian because we were there to establish a Christian witness and at the same time give medical care. This Christian staff formed a nucleus where we were all like minded; all had a Christian dedication because though they were coming to this particular area and leaving their jobs, they were not going to get any extra remuneration. So money was not the thing that was bringing them there; on the contrary, they were going to have a lot of inconveniences.

Besides this nucleus of Christian staff we needed other people - the non-professionals and the community. We asked our consultative committee to hire these for us. This had an advantage as they wanted to do their best for us, for we had told them that if within six months we did not have a good response from them, we would find some other place to work. So they found good, honest, hardworking staff of another 10 to 15 people from the local community. They also went around and found building contractors and other people to supervise and plan the buildings for the future. All this work done by the committee was in an honorary capacity.

After that we went around from village to village, holding meetings in each village. Our first objective was to get an idea of the felt needs. In certain villages they just did not feel that there was any need for medical care and were quite happy with what they had. But there were villages where the people felt that they did not have competent physicians, especially for care of their emergency illnesses, like obstructed labour or fractures and other medical emergencies. They did not have any diagnostic facilities. In the north there is a hospital 50 miles away; in the south there is one 130 miles away; in the east one is 150 miles away; and in the west one about 70 miles away. We discussed with the members of the community our interest to improve their health, but they felt that curative care should take precedence over other programmes that we were proposing to them. We told them if they were willing to pay for these services, we would start with these. They all agreed to this; so from the first day we have been self-supporting as far as curative work is concerned. They understand that they have to pay for any curative work that they get from us.

This is what happened at the local village. As the news spread to the nearby villages, people became aware that they could come and negotiate with us to go to their villages. Here again we said, "The decision to start work in your village area is entirely up to you. These are our conditions; If you want us to come to your village to start health work, you give us a place to work, give us your cooperation, give us your help in child care and immunization of children, give full cooperation to our team, and care for our nurses when they stay in your villages."

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136 CHILDREN IMMUNIZED

Objectives

1. reduce birthrate from 40/1000 to 30/1000

2. reduce under-fives' mortality by 50 per cent

3. identify and bring under regular treatment leprosy and tuberculosis patients

4. train indigenous workers and offer field training to health workers

To achieve our objectives, the main activities will be

- the establishment of under-fives' clinics - these clinics should be mainly for supplementary feeding programmes, immunization, treatment of minor illnesses;

- family welfare programmes consisting of antenatal care, delivery and postnatal care;

- family planning programmes making use of all known contraceptive devices and operations;

- detection of leprosy and tuberculosis patients and treating them in a well-integrated programme;

- curative services in the main centre for obstructed labour, acute surgical and medical emergencies and diagnosis;

- mobile clinics;

- school health programme.

This, in short, is a summary of the project we are trying to develop. Today I am going to share with you mainly the community involvement in arriving at certain decisions in regard to the programme.

While we were studying in the United States, we decided that we would go to an area where there was no Christian witness because we wanted to establish a Christian witness in an entirely non-christian area. Secondly, we wanted an area where there was an acute need for medical care and where was no possibility of any future development, not only development in the health field but also in other fields, so that after five years there would be no other factors to account for the changes that take place. We chose this area in Maharashtra, where there is no possibility of any major industrial or agricultural changes planned for the next five years. This area, like many other rural areas of India, has a very strong caste system. About 50 per cent of the people are cultivators or farmers; 20 per cent are untouchables - the people who are very poor and usually landless labourers - who socially have no status. The villages have a governing board with an elected head called Sarpanch. Most of the leadership comes from the farmer caste who are the decision--makes for the community. In addition to these two castes, there are wealthy farmers, schoolteachers and other educated government employees who are the accepted leaders of the community. One cannot enter any community by passing the leaders because if a leader feels that he has not been given due recognition, he can become hostile and uncooperative.

We were completely unacquainted with the community and leaders of this area. We wrote several letters in the local language to the political leaders and to the village leaders. In our letters we described the entire programme that we had in mind. We said, "If you want us to come into your area, there are certain things that you should be prepared to do. We shall be about 20 to 25 health workers coming into your area without having any housing facilities. We expect you to make some arrangements for accommodation for about 20 people. You should also give us temporary buildings for our clinics and our diagnostic facilities, and if after a six-month period we find that your interest in us remains, you should donate us land to build permanent structures in your area".

There were varied reactions to our letters. In one area (my home village) wealthy farmers who owned sugar factories wanted to build a modern, well-equipped

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hospital to cater to their own curative needs. In another area the influential indigenous practitioner felt threatened, so he did all he could to prevent dialogue with the community leaders in his village. In a third village there was a community leader responsible for health planning of a district of 2 million people, and he immediately saw the benefits for his area in our proposal. There was also a minister at the state level, a state of 32 million people who happens to come from this area. These two saw the many advantages for their community and saw the political advantages for their own re-elections. Therefore, they went into the community, into different villages, and got resolutions passed by those villagers inviting us to come and start work in this area.

As stated, we laid conditions under which we would be willing to go to the area, and they were willing to fulfill these conditions. They emptied out an old veterinary dispensary, about 30 x 10 ft, which we used as our outpatient department. They gave us a storage place for inpatients and rented a place for us to live. It was a very simple arrangement - no electricity, no running water and all 20 of us having to live in a 20 x 30 ft area.

We started work in real earnest in January 1971. We formed a consultative committee which consisted of not only members of this local village but others from different areas, representing different communities, especially the poor 'harijan' (untouchable) community. The first responsibility we gave this committee was to find accomodation for us and accomodation for our health centre. We then asked them to find us staff. Most of our staff, like nurses and paramedical workers, had to be brought from the city. This staff had to be Christian because we were there to establish a Christian witness and at the same time give medical care. This Christian staff formed a nucleus where we were all like minded; all had a Christian dedication because though they were coming to this particular area and leaving their jobs, they were not going to get any extra remuneration. So money was not the thing that was bringing them there; on the contrary, they were going to have a lot of inconveniences.

Besides this nucleus of Christian staff we needed other people - the nonprofessionals and the community. We asked our consultative committee to hire these for us. This had an advantage as they wanted to do their best for us, for we had told them that if within six months we did not have a good response from them, we would find some other place to work. So they found good, honest, hardworking staff of another 10 to 15 people from the local community. They also went around and found building contractors and other people to supervise and plan the buildings for the future. All this work done by the committee was in an honorary capacity.

After that we went around from village to village, holding meetings in each village. Our first objective was to get an idea of the felt needs. In certain villages they just did not feel that there was any need for medical care and were quite happy with what they had. But there were villages where the people felt that they did not have competent physicians, especially for care of their emergency illnesses, like obstructed labour or fractures and other medical emergencies. They did not have any diagnostic facilities. In the north there is a hospital 50 miles away; in the south there is one 130 miles away; in the east one is 150 miles away; and in the west one about 70 miles away. We discussed with the members of the community our interest to improve their health, but they felt that curative care should take precedence over other programmes that we were proposing to them. We told them if they were willing to pay for these services, we would start with these. They all agreed to this; so from the first day we have been self-supporting as far as curative work is concerned. They understand that they have to pay for any curative work that they get from us.

This is what happened at the local village. As the news spread to the nearby villages, people became aware that they could come and negotiate with us to go to their villages. Here again we said, "The decision to start work in your village area is entirely up to you. These are our conditions; If you want us to come to your village to start health work, you give us a place to work, give us your cooperation, give us your help in child care and immunization of children, give full cooperation to our team, and care for our nurses when they stay in your villages."

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Maharashtra - 2.

March 9, 1970
Dr. R.Arole

The Johns Hopkins University
School of Hygiene and Public Health
Department of International Health

International Health 2 - Final Presentation

COMPREHENSIVE HEALTH CENTER FOR RURAL INDIA

NOTE : This presentation is based on Appendix given with my first presentation and partly summarises it.

I. Problems
1) Rapid increase in population
2) High infant mortality (200/1000) and continued high mortality among children under 5 yrs. (40 % of total deaths)
3) Prevalence of chronic diseases
   a) Tuberculosis 15/1000
   b) Leprosy 11/1000
   c) Guinea worm 150/100,000
4) Lack of facilities for adequate health care

II. Goal

To develop effective medical program fitted to the needs and resources of the area.

III. Methods
1) Take specific area as project's responsibility.
2) Establish minimum facility treatment center with outreach in the community.
3) Use auxiliary and paramedical health workers.
4) Cooperate with Dais, indigenous practitioners and other health professionals in improving medical care.
5) Cooperate with government programs.
6) Motivate community to take financial responsibility

IV. Objectives
1) Reduction in birth rate from 40/1000 to 30/1000.
2) 50% reduction in "under fives" mortality.
3) Identify and bring under regular treatment leprosy patients.
4) Train indigenous dais and offer field training to nurses, interns and other health professionals.

V. Time limit : 5 -6 years

VI. Population served 80,000 (equivalent to that of a community block)

Area covered 18 miles x 18 miles
Number of villages - 56
Women in childbearing age - 14,400
Number of deliveries in a year - 3,200
Children 0-4 years of age - 12,000
Leprosy patients - 800

Population Projections

(Rate of Natural Increase - 2.5%)

Year	Population	No. of Births to be Prevented
1971	82,000	820
1972	84,100	841
1973	86,150	861
1974	88,250	882
1975	90,485	904
		Total 4308 (4300)

Methods to Be Used to Prevent 4300 Births

Method	Percent	Total Number
Sterilization	60 %	2,580
IUD	20 %	860
Oral Contraceptives	20 %	860

I. One sterilization prevents 1.5 births.
To prevent 2,580 births, 1,720 sterilizations are necessary.
75 % of sterilizations will be tubal ligations.
25 % of sterilizations will be vasectomy.
Tubal ligations -- 1,290
Vasectomy -- 430

II. One IUD prevents 0.5 births.
To prevent 860 births, 1,720 IUD's are needed.

Year	Tubal Ligation	Vasectomy	IUD
1971	[illegible]	[illegible]	100
1972	115	70	160
1973	325	120	175
1974	350	130	200
1975	400	150	225

Cost for five years : Personnel Rs. 45,000
Equipment Rs. 45,000
Rs. 90,000 = 18,000/yr.

1. Rural health center in a central town - 10,000 pop.
2. This serves surrounding area of 5 mile radius (20,000 pop.)
3. Establish 8 mobile clinics to visit 8 villages at an average distance of 7 miles.
4. Establish 8 sub-centers in the villages.
5. A sub-center will be run by an auxiliary nurse midwife.

Rural Health Center Activities

I. Under Five Clinic
Run by a nurse and an ANM
Physician to consult only
Total no. of children 4500; 4 visits/child/yr.

II. Pre-post-natal clinic
Run by an ANM; supervised by a nurse; consultant and physician;
Total population 1800, 5 visits/mother

III. Family planning clinic
Population 5400 couples
Target 3000 couples, 3 visits/yr.

IV. General outpatient clinic
Triage by a nurse

V. In-patient facilities
a. Abnormal obstertrics
b. Sterilization (tubal ligation) pts.
c. Acute medical and surgical emergencies.

VI. Diagnostic laboratory, referrals from sub-centers.

VII. Referrals to district hospital.

Two Mobile Clinics

1. Area covered - 5-9 miles from the center
2. Population covered - 50,000
3. Total no. of visits 40/year

Activities - pre - post-natal clinics
"under five" clinic
family planning

Staff - 2 nurses
4 ANM's
2 field workers (F.P.) cum drivers
2 basic health workers

Physician supervision and consultation - 16 hrs/wk.
Clinic run by a nurse.
Capital cost Rs. 57,000
Receiving cost Rs. 35,000/yr.
Cost per visit Rs. 110.00.

Subcenter

Population covered - 6,000
No. of villages - 5
Situated in a large central village
Activities carried on by an ANM
Supervision and Consultation by a nurse and a physician
Inservice training
Regular meeting at the center once a week
Capital cost - Rs. 4000
Receiving cost - Rs. 4500.00

Leprosy Control and Treatment

Chief social workers are responsible for the work. Four paramedical workers to do the work. House to house survey in a systematic manner beginning at the center. Ultimately, four paramedical workers to be stationed in four of the sub-centers.

Training

1. To give local Dais 6 month course in midwifery at the center.
2. Encourage A.N.M. to help Dai in her deliveries.
3. Train local school teachers in giving vaccinations and use them for immunization program. Especially in villages where there is no A.N.M., train the school teachers in giving preliminary care.
4. Inservice training for the nurses and midwives.
5. Field training for interns.

Resources

Manpower

2 physicians; 5 nurses; 11 auxiliary nurse midwives; 5 leprosy paramedical workers; 1 pharmacist; 1 laboratory technicians; 10 aides; 2 clerks; 1 driver cum field worker (family planning); 1 mechanic driver cum field worker; 2 basic health workers; 1 family planning extension educator; 1 stenographer.

Financial Resources

A. For capital expenditure Rs. 520,000.

B. For recurring expenses
per year Rs. 200,000

(Equivalent to Rs.2.50 per head)

Capital Expenditure

	Rs.
Land Development	12000
Clinic Building	52500
Inpatient facilities	120000
Staff Housing	142000
Equipment	100000
Subcenter Buildings	30000
Mobile Clinic	57000
	513000

(Construction cost Rs. 30 per square foot and increase in construction cost by 5% per year.)

$ 1 = Rs. 7/50

Recurring Expenses

1. Staff Salaries	Rs. 67500
2. 2 Motile Units	Rs. 45000
3. Drugs and Supplies	Rs. 52500
4. Equipment Replacement	Rs. 12500
5. Maintenance	Rs. 10000
6. Educational Material Audiovisual aid	Rs. 12500
	Rs. 200000

Staff Salaries

2 Physicians	2 x 800 x 12	(75 %)	= 14400
3 Nurses	3 x 250 x 12		= 9000
10 Auxiliaries	10 x 175 x 12		= 21000
2 Technicians	2 x 200 x 12		= 4800
1 Extension Educator	1 x 200 x 12		= 2400
4 Leprosy paramedical workers	4 x 150 x 12		= 7200
1 Leprosy worker	1 x 200 x 12		= 2400
2 Clerks	2 x 150 x 12		= 3600
1 Stenographer	1 x 250 x 12		= 3000
			67800

Mobile Unit

		Rs.
2 Nurses	2 x 250 x 12	= 6000
4 Auxiliaries	4 x 175 x 12	= 8400
1 Driver	1 x 150 x 12	= 1800
1 Mechanic	1 x 200 x 12	= 2400
2 Basic health workers	2 x 125 x 12	= 3000
2 physicians (25%salary)	2 x ¼(800 x 12	= 4800
Maintenance of vehicles		= 8000
Supplies		= 1000
		Rs.35400
Vehicle Replacement fund		Rs. 9600
		45000

A. Church
   Capital Funds
   Part of recurring expenses

B. Government
   1. Capital funds for family planning Rs.18000., surgery.
   2. Capital funds for clinic Rs. 8800
   3. Salaries of family planning staff Rs.5175 per year.
   4. Salaries of leprosy workers Rs. 7200/year.
   5. Salary for physician Rs. 3000/yr.

C. Community
   1. Building of sub-centers Rs. 30,000.
   2. Capitation fee from each household owning land Rs.40,000/year.

D. Christian Medical Association of India
   For Sterilization operations Rs. 83450/5 years

Expected Results

A. Benefits
   Money saved by preventing births (Rs.9600/per birth).
B. Reduction in mortality and morbidity among young children.
C. Reduction in disability due to leprosy.

Evaluation

1. Baseline survey done at the beginning of the project. Comparison with current records and with final survey will give an idea whether we achieved our goals.
2. Good record keeping will be useful to evaluate our progress.
3. Records will give an idea of: a.) activities, b) efforts. e.g. no. of immunizations done, no. of visits patients made.
4. Number of persons trained.

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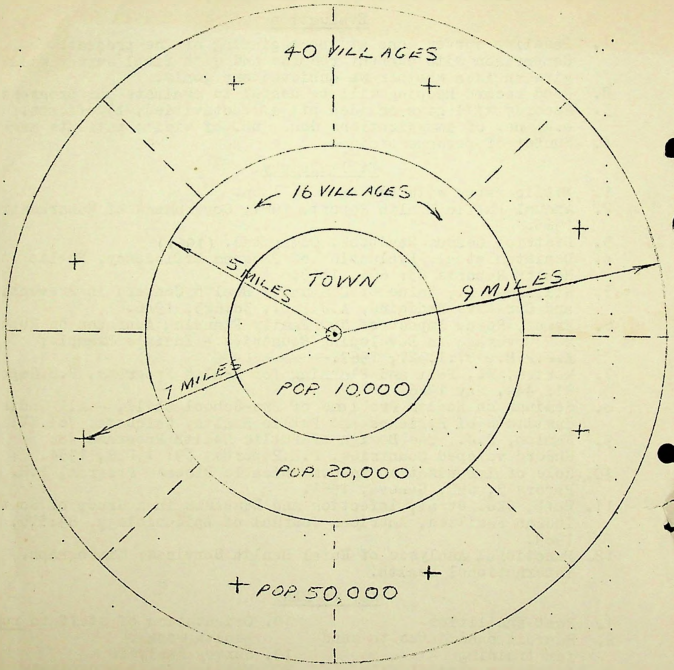
11. Webb, JKG. et al, Infection and Diseases in a Group of South Indian Families, American Journal of Epidemiology, 89:375, 1969.
12. Functional Analysis of Rural Health Services, Mimeograph, International Health.

Key to PERT

1. Rent facilities
2. Recruit candidates to send for training
3. Establish contact with government officials
4. Establish rapport contact
5. Plan Survey
6. Order supplies for clinic and survey
7. Acquire land
8. Pre-test survey
9. Obtain supplies
10. Establish rapport in surrounding villages
11. Register and obtain license
12. Survey form printed
13. Print clinic card forms
14. Recruit staff
15. Contract for building
18. Orientation of staff to rural health work
19. Survey Analysis
20. Mobile clinic organized
21. Candidates in training
22. Apply for government grant
23. Order clinic equipment
24. Target population identified
25. Clinic supply received
26. Clinic building completed
27. Inpatient building started
28. Inpatient supplies ordered
29. Programs launched
30. Inpatient supplies received
31. Trainees ready for work.
32. 3. Subcenters established
39. Health center completed
40. Target population contacted
41. Services rendered

AREA TO BE SERVED BY PROGRAM.



O CENTRE

+ SUB-CENTRE - EACH SERVING 6,000 PEOPLE IN 5 VILLAGES.

Uruli-Kanchan has become a legend where technology takes a different meaning: promoting prosperity for the rural poor. Starting as a nature cure ashram, the Bharatiya Agro-Industries Foundation offers many services to the farmer.

SERVING THE POOR

By Dr. M.N. Upadhyay

IN THE SLEEPY little village of Uruli-Kanchan, 35 Kms east of Poona, a special train steamed in on the morning of 1946, carrying Sudhir Ghosh, a special emissary of Lord Louis Mountbatten, Viceroy of India. Ghosh's mission was to bring Gandhiji along with him to Delhi immediately for crucial talks with the Viceroy regarding transfer of power.

The Mahatma politely informed Ghosh that he could not leave immediately as "I am committed to attend today's evening prayer meeting with Uruli-Kanchanites", and added characteristically, "remember, unless Uruli-Kanchan is made, Delhi cannot survive".

This statement is considered the flash point that gave birth to the idea of Uruli-Kanchan, which was to emerge as one of the most spectacular success stories among rural development exercises in India. To quote a leading foreign expert "Uruli-Kanchan has become a legend where technology takes a different meaning—a means of promoting prosperity for the poor."

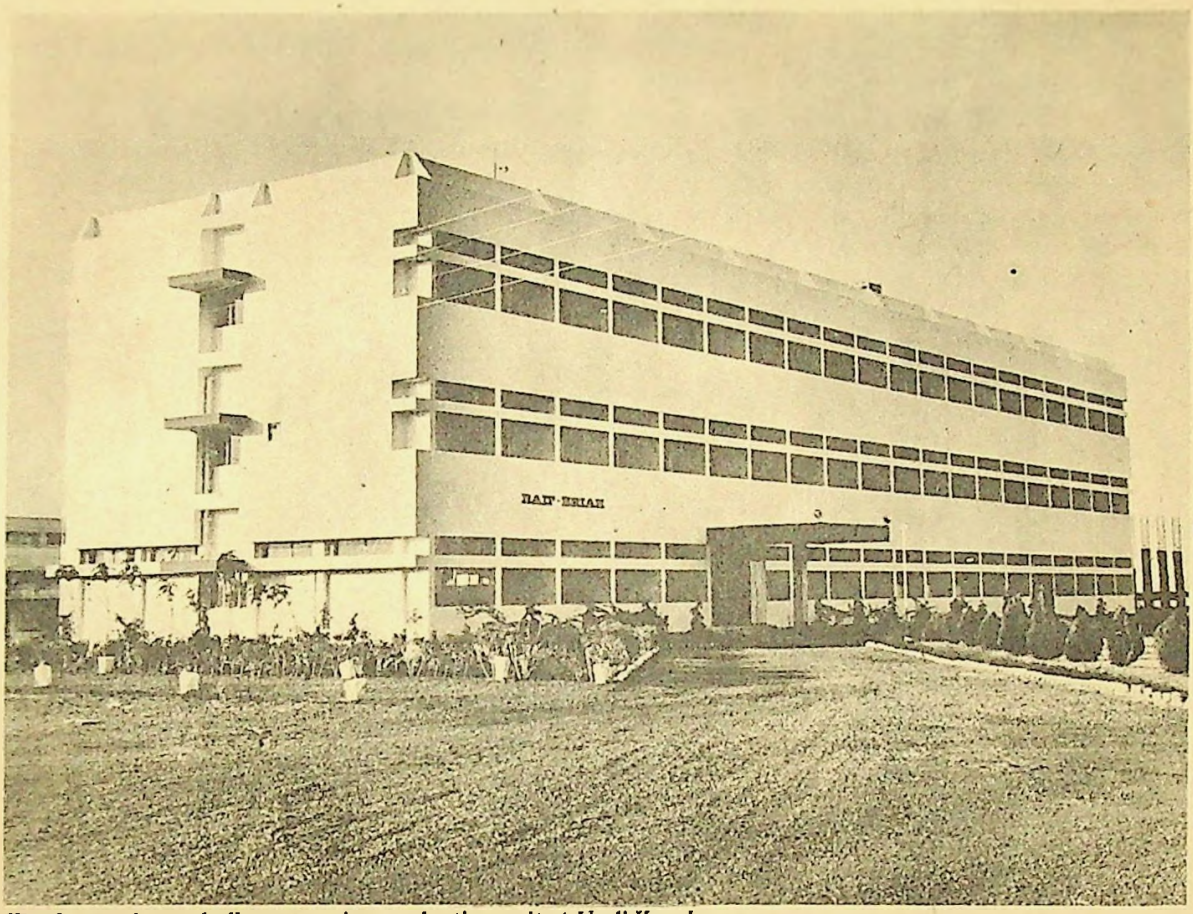
The Bharatiya Agro-Industries Foundation was registered in 1967 as a no-profit non-Government voluntary organisation under the Bombay Public Trust Act, 1950. Preceding this was a vow taken by a young disciple of Gandhiji, Manibhai Desai, that he would serve the people of Uruli-Kanchan till the end of his life. Starting with a modest nature cure ashram, the institution grew up to encompass a rare combination of philosophy and technology, dedicated to the cause of the poor.

The foundation seeks to work for total integrated development of socio-economically weaker sections by applying research and extension methods in agriculture, horticulture, dairy, husbandry, animal sciences and agro-based vocations. Today, the Bharatiya Agro-Industries Foundation has over a dozen activities including a frozen semen technology for genetic upgradation of nondescript (Deshi) cows, a network of cattle breeding centres spread over 23 districts in Maharashtra, Gujarat, Uttar Pradesh and Karnataka and a vaccine production unit for foot and mouth disease.

All this has been possible with the visionary outlook of Manibhai Desai, who heads the foundation and is assisted by a team of professional executives, whose average age is below 30 years.

A number of international agencies have collaborated in his unique project including DANIDA (Danish International Development Agency), CHF (Canadian Hunger Foundation), CAA (Community Aid Abroad), CRS (Catholic Relief Services), CA (Christian Aid), CORSO, OXFAM etc. The aid from these agencies has been utilised primarily for importing critical inputs for the cattle development programme including liquid nitrogen plants, cryogenic containers and frozen semen of proven sires of Holstein Friesian and Jersey breeds from Denmark, Canada, USA, Australia, UK and New Zealand.

The latest imports have been technology and equipment for the manufacture of foot and mouth disease vaccine.



The foot and mouth disease vaccine production unit at Uruli-Kanchan.

The focus of the foundation is primarily in regard to the genetic upgradation of the indigenous cow. The crossbred cow has been recognised as the most efficient animal for converting feed into milk. Studies have revealed that while the Deshi cow yields 600 litres of milk per lactation, the crossbred cow can yield upto 2500 litres: a net addition of 1000 litres. While the Deshi cow's milk declines sharply at the end of the 4th or 5th month of lactation, the crossbred cow continues its higher yield till the tenth month of lactation. Moreover a crossbred cow calves much earlier and has a longer productive life.

Dr. Rudramurthy of the Mafatlal Centre for Rural Development has estimated the projected income and expenditure of a farmer cross-breeding one nondescript (Deshi) cow. Accordingly, the surplus of income over expenditure of the cross-bred progeny ranges from Rs.405 in the first year to Rs.4,666 in the tenth. To achieve this objective, the Bharatiya Agro-Industries Foundation has introduced a network of 112 cattle breeding centres in four States. Each of these has an area of operation extending upto a radius of 10 to 15 kms, covering 20 to 25 villages, 700 to 1000 families and 2000 cows. Each cattle development centre has a qualified veterinary doctor, who undergoes an intensive orientation programme at the foundation, which emphasizes his role as a social-change agent, before he is posted to a centre.

Five centres are grouped together under an area, with an experienced veterinary doctor who coordinates the functions of the centres. Five areas and 25 centres are under the supervision and management of a zone, headed by a zonal officer, who is an experienced postgraduate in veterinary sciences and animal husbandry. The regional office of the cattle development programme has got two zones under its purview and has a number of functionaries.

An advantage of frozen semen cross-breeding technology is that an ejaculation can be made into one hundred and fifty straws, while a natural service by a bull can inseminate only one cow. Frozen semen can be preserved for several years and easily transported to remote villages.

Limited Success

AS ON 31 March, 1978, 1,40,000 inseminations were effected, in the centres from which over 1,00,000 deshi cows conceived. The number of female calves, produced and recorded, numbered 15,000. The reason for the relatively limited number of inseminations included a reverential attitude to the cow in our rural society, where many consider it a sin to have the cow impregnated by unknown foreign semen. There are some who will not agree to the cow being treated as a commercial proposition, much less to its artificial insemination for the purpose of increasing milk yield.

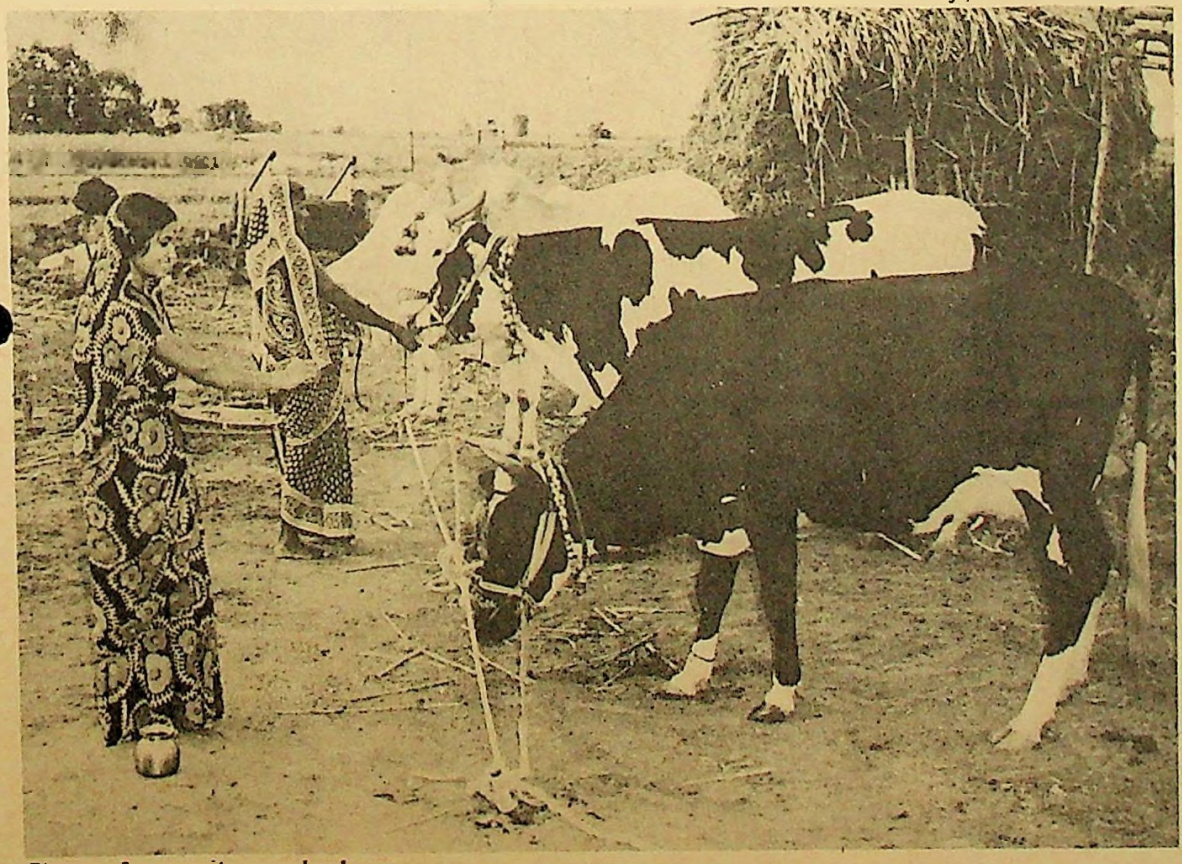
The selling of milk itself is frowned upon by a few: unbecoming of the sacred relationship they have with the cow. These reactions of a traditional society are, however, on the decline and there is an increasing acceptance of the desirability of artificial insemination.

A fee of Rs.10 is charged for registration while Rs.150/- is charged for a conception. No fee is charged in case the centres are adopted and paid for by the corporate sector or other institutions. Frozen semen artificial insemination is done both at the residence or farm of the party. A record is maintained of the number of calls made on a day and indicating the results of the insemination. When conception does not take place, a second, and sometimes even a third insemination is made. If the result continues to be negative, the cow is examined thoroughly for defects in its reproductory system, which are treated.

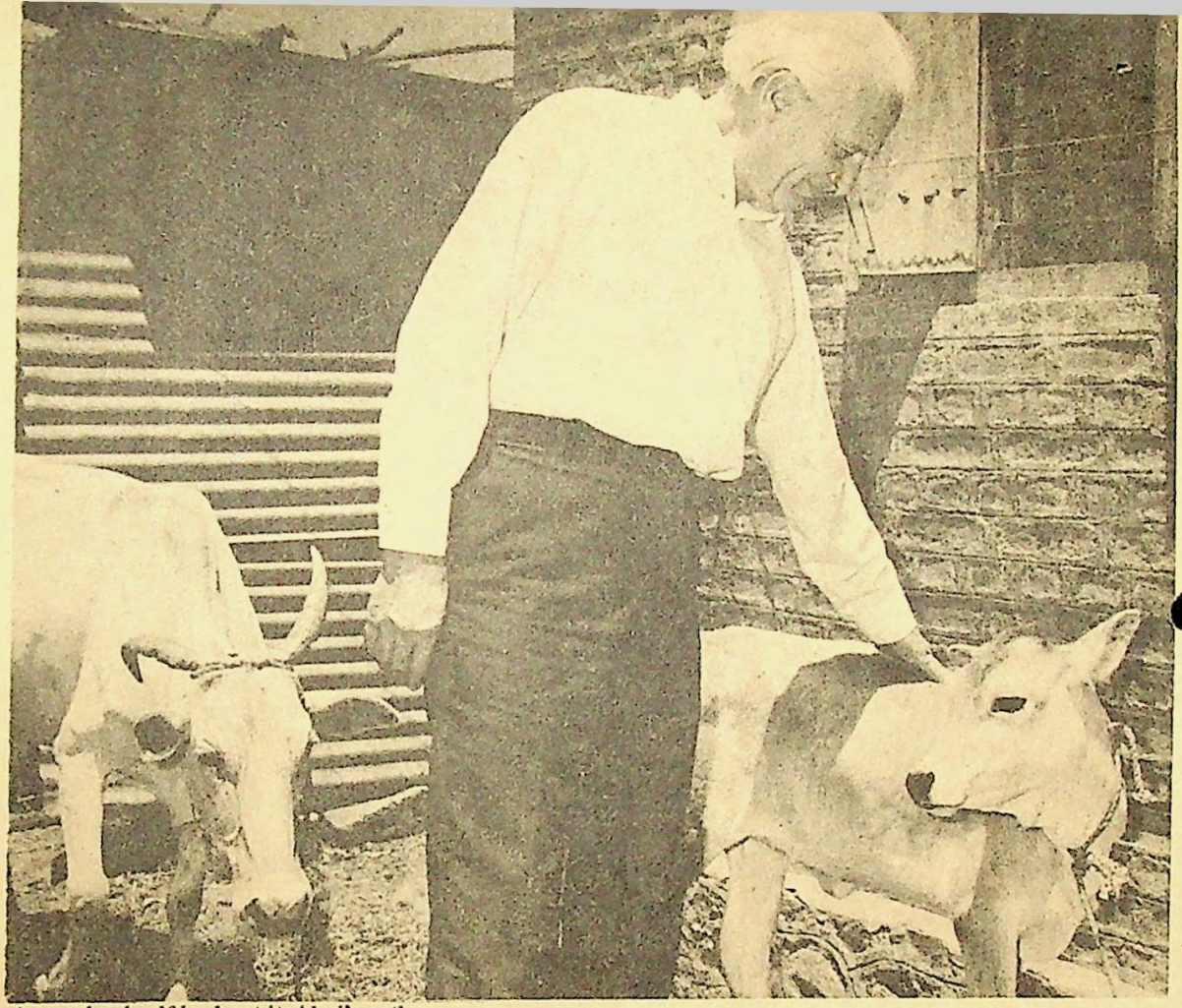
Crossbred Cow

DURING a visit to the Akluj Cattle Development Centre, which is in the sugarcane-rich area of Sholapur District in Maharashtra, I met Dr. Nimadge, the BAIF veterinary doctor, who is in charge of the centre. He is provided with a 5 H.P. motorcycle fitted with carriers for a three litre liquid nitrogen vacuum flask which holds 150 to 200 doses of frozen semen. He also has a 29 litre liquid nitrogen container for refilling the 'vacuum flask', as the straws have to be maintained at a temperature of minus 196° centigrade, enabling them to be effective for a period of fifteen to twenty years.

Maruti Ganpat Honkade of Tambve village comes from a cobbler's family, but has disconti-



Picture of prosperity: crossbred cow.



A crossbred calf looks at its 'desi' mother.

nued his traditional vocation. His crossbred cow gives him an yield of six litres as against 2½ litres produced by his former deshi cow. The deshi cow's milk yield declined sharply to half a litre at the end of 5th month of lactation, while the crossbred continues to give its yield till 10 months of lactation. He sold his milk at Rs.1.95 per litre to the milk collection centre and also earned Rs.4/- per day as a casual agricultural labourer.

Laxman Ganpat Gaikwad of Bagewadi village is a small farmer with half an acre of land. In 1972-73, he had a deshi cow, which gave him a five litre yield for three months which gradually declined thereafter. When this cow was artificially inseminated, there was a dramatic change in the milk yield which recorded a 12 litre output till eight months of lactation. Gaikwad sells his milk at Rs.2.15 per litre to a milk marketing society and earns over Rs.700/- per month. His monthly expenses included Rs.80/- for concentrates, Rs.70 for dry fodder and Rs.180/- for green fodder. This nets a surplus of about Rs.480/- per month on the basis of a single crossbred cow. Ramchandra Jagannath Ingle has a second generation Jersey crossbred which is a specimen of buoyant health and good looks. It yields seven litres of milk per day netting an income of over Rs.400/-.

Yet another success story was that of Madhukar Balchandra Singare, who had become owner of 18 acres of land after obtaining its legal title from the absentee owner. In addition to his crossbred cows, of which he was obviously proud, he grew sugarcane and improved varieties of cotton (H4) which brought him obvious prosperity, not disclosed in money terms.

In the midst of these success stories, was the case of Jhingra Sambhaji Bhong who after unsuccessfully trying artificial insemination, reverted to the service of a deshi bull, which impregnated it. When asked as to why she had not called for the artificial insemination a second time, she replied that she was unsure of its effectiveness.

This suggests that while the BAIF is doing a good work, it suffers from a certain weakness in regard to follow-up action. This may be due to

a dearth of adequate staff at the cattle breeding centre. Also, it seems that the type of comprehensive health-cover that is necessary, is not available from Government veterinary agencies. However, the BAIF is planning to launch a comprehensive programme of poly-clinics to supplement its efforts.

The integrated rural development programme includes agriculture development, cattle development, education and skills-oriented training and customs services. The BAIF is already involved in the implementation of a highly successful joint farming society and a lift irrigation scheme.

THE END

THE MAN BEHIND IT ALL

MANIBHAI Desai is the soft-spoken livewire behind the BAIF. A stimulating conversationalist, he recalls his early association with Gandhiji with a touch of nostalgia and reverence and feels happy that he has been able to keep his promise to Bapuji to dedicate his life to rural development.

After a brilliant academic career, Manibhai was for some time involved in subversive activities under the leadership of Jayaprakash Narayan during the independence struggle. A first class graduate in physics, Manibhai was an expert in making bombs and blowing up bridges. He also successfully intercepted government telephone communications by tampering with telephone wires. He courted arrest and was sentenced to rigorous imprisonment by the British.

When Gandhiji disapproved of violent activities, Manibhai gave them up and spent some time at the Sevagram Ashram at Vardha. Here Gandhiji entrusted him with sanitary arrangements at the ashram, insisting that lavatories should be clean enough for a Gita recitation in it, and polished enough to reflect the image of the person using it.

Manibhai recalls the challenges faced by him and his colleagues during the cholera epidemic at the ashram. Later, he worked as an accountant and when Gandhiji was fully satisfied with him, he was chosen for rural development work at Uruli-Kanchan.

A nature cure ashram was the first activity launched by Manibhai at Uruli-Kanchan, a place noted for its backwardness. People were in debt and were given to drunkenness. Most of them were under the grip of a Pathan moneylender who mercilessly harassed the villagers. Manibhai and his associates launched a movement to rid the village of both the moneylender and alcohol.

There was a large plot of land near the river just outside the village in which the ashram cows grazed. The income from the land was only Rs.300 a year and Manibhai thought it would be a good idea to improve the land and use it for cultivation. Accordingly he organised a joint farming and lift irrigation society, both of which after several major hardships are doing extremely well today.

Among the problems that had to be encountered were the alkalinity of the soil, government restrictions regarding irrigation and technical problems in the growing of crops, fruits and sugarcane.

A cooperative sugar factory has also been organised in the neighbouring village and cane supplied to it. These successes encouraged Manibhai to launch a major multifaceted development complex and ushered in the Bharatiya Agro Industries Foundation.

Apart from organising these activities through frequent tours and contact with field staff and beneficiaries, Manibhai has negotiated for loans and grants from many foreign governments and institutions which have collaborated both technically and financially in the work at BAIF.

A confirmed bachelor and vegetarian, Manibhai is not dogmatic either about his principles or views. He combines modern sensibility and age-old wisdom in his work.

THE END

Maharashtra-29

No. 1001
Rural Dev.
Maharashtra

Agricultural Institute, Kosbad, Maharashtra

1. Started in 1949

3. Activities.

a. Education: residential schools, including work-experience, including fields such as poultry-keeping, kitchen gardening, carpentry as well as helping in agricultural work;

b. Training: A Tribal Youth's Training Centre for above activities.

c. Research in problems of agricultural production peculiar in the area.

d. Development: Adoption of 5 villages to demonstrate and develop the cultrivation of improved crops etc on a continuing programme.

7. Sponsorship & Funds. Gokhale Education Society, Maharashtra.

12. Reference: J. Sommer et al (1974)

Note: No information available on items No. 2, 4, 5, 6, 8, 9, 10 and 11.

Maharashtra - 5

No. 1002

Comprehensive
Health
Maharashtra

Integrated Health Services Project, Miraj Medical Centre, Miraj, Sangli district

1. Started in

2. Coverage. The entire Miraj Taluka (936 sq.km.) comprising of 58 villages and a rural population of over 2.3 million.

3. Activities. The Miraj Medical Centre.

By female staff

a. Maternal care.

b. Child care.

c. Family Planning.

d. Medical Care (½ day daily)

e. Health Education (½ day daily)

f. School Health

g. Coordination of activities with Male Health Workers.

By indigenous 'Dais'

a. Hygienic deliveries.

b. Family Planning motivation.

c. Simple symptomatic treatment of minor ailments. (some dais only - in villages without health centres).

By male staff

a. Detection of infectious diseases.

b. Vital statistics.

c. Smallpox, Malaria, T.B. and Leprosy work, both detective and immunization etc.

d. Family Planning.

e. Environmental Sanitation

f. Health Education.

/...

g. School Health.

h. Treatment of minor ailments.

i. Cholera and Typhoid Innoculation.

j. Coordination of activities with female staff.

4. Personnel and Training.

a. Six medical officers (3 PHCs) in project area.

b. 41 male and 30 female government unipurpose health staff - six months training to convert them into Integrated Health Staff.

c. 173 (93% of all in area) dais - trained for tasks as above.

d. 40 local women trained to be part-time health assistants working for the ANMs.

5. Supervision and Records. (a) A system of continuous monitoring of data on all aspects has been operating; (b) a feedback system on a quarterly basis for the average worker and on a monthly basis for the weaker one is proving effective; (c) direct and constant supervision in the form of education, guidance, help and problem-solving is used. Memos are replaced by problem-solving sessions with concerned workers.

6. Community and other Participation. Government and Zilla Parishad (District Council) participation exists since the project is utilizing their present infrastructures.

7. Sponsorship/Funds. This is a joint project of the Government of Maharashtra, Sangli Zilla Parishad and Miraj Medical Centre. Staff are paid by the first two. Extra input funds are provided by the World Council of Churches in Geneva.

8. Evaluation. (a) A baseline sample survey was conducted and a mid-term evaluation in the middle of the 3rd year; (b) data on pre-project years is also available for comparison. Control areas are not easily available; (c) hope to evolve an indigenous method of evaluation to compare the individual's performance as a unipurpose health worker and as a multipurpose worker.

9. Problems.

a. Differential salary scales in the government structure create problems when MPW scheme is started.

b. Loss of T.A. due to smaller area served in MPW scheme.

c. Lack of leave reserves in the first year.

d. Non-positioning of ANMs for a long time.

e. Resistance among older staff to new system.

f. Resistance among MOs to new pattern especially regarding visits to SCs, to supervision of the staff, to preventive aspects, to training staff.

g. Transfers of trained staff.

h. Delay in follow-up of diagnoses leading to low morale.

i. The campaign approach does little to enforce integration.

j. Statewise shortage of vaccines, vitamin A syrup, iron and folic acid laboratory. Medicines invariably never reached SCs, reason given being that quota was too small even for the PHC.

11. Contact. Dr Eric R. Ram, Project Director.

12. Reference. Paper presented at the National Symposium, 1976; WIO, UNICEF.

Note: Information not available for item 10.

Maharashtra - 25

58-9

MAHARASHTRA LOKAHITA SEVA MANDAL:

Maharashtra Lokahita Seva Mandal was born in 1970. The purpose of the Mandal is to help the poor with special emphasis on Medical Relief, Education and Rehabilitation. The Mandal started its active work in 1976.

The Bombay Municipality allocated to the Mandal for the Leprosy Control work the 'H' ward to cover a population of 2½ lakhs. Later, as the project progressed the 'P' ward was also allocated wherein we cover a population of 7 lakhs. Both these wards are in the northern suburbs of the Bombay city. The incidence of leprosy in these wards is very high.

AREAS COVERED:

'H' ward east - East Mithi River, C.S.T.Road, Santacruz East, West - Western Railway line, North Vile-Parle subway, South Khar East (upto Nirmal Nagar). Population - 2.5 lakhs, 47 slums.

'P' Ward - East Kurar Village and Aarey Milk Colony, West Aksa, Erangal, Madh Villages, Manori creek, South upto Oshiwara Bridge, North upto Goraswadi Petrol Pump. Population 7 lakhs, 60 slums.

AIM OF THE PROJECT:

The aim of the project was to evolve a functionally feasible methodology for urban leprosy control in order to reduce the transmission of the infection by bringing down the quantum of infectivity.

METHODOLOGY OF WORK:

SET programme (under guidance of National Leprosy Control Programme).

FIRST LEVEL OF WORK:

The first level of work is detection through intensive surveys. Each ward is divided into zones to facilitate a systematic examination of the entire population. The Mandal conducts house to house surveys in slums, skin check-up in schools, factories and housing colonies within the projet area by trained medical and Para-medical teams. By intensive surveys the new cases arising will be brought under treatment at an early stage and the chances of these cases progressing into infectious form will be minimised. The pattern of deformity in cases which are detected early will be minimum and they will be amenable to conservative physiotherapy measures. The functional ability of such individuals will be preserved.

SECOND LEVEL OF WORK:

The second level of work is propaganda and health education. These have two fold purpose: one is to awaken public consciousness about leprosy. Facts about its prevelance, its nature, its spreads, its consequences and its cure have to be dissemenated in order to obtain public co-operation in combating the disease and in removing the social stigma regarding leprosy. Health Education is providing through talks and illustrated lectures. The Mandal has given a course of health education talks to the students of higher standards and to the teachers which come under our project area. In slum areas, organised talks with the slides are given periodically. Besides, the doctor and para-medical workers very frequently give talks to groups whenever a slum area is visited. Small scale exhibitions with charts, photographs and posters are often in slum areas, schools and factories with the aim of educating people about the facts of leprosy and lessening the prejudice against leprosy patients. The other purpose is to instruct patients, especially those in the incipient stage, regarding care and cure of the disease, and to encourage the public to submit to surveys for the detection of the disease. Talks and slide shows are also arranged for Doctors and Nurses working in 'H' & 'P' wards. Film shows are arranged for the public in our project area. As a result of all these programmes many people come voluntarily for examination.

(continued)

THIRD LEVEL OF WORK:

The third level of work is treatment of detected cases. 23 dispensaries have been set up and are attended by full time doctors, trained para-medical worker, physiotherapist and helpers, so that the disease can be controlled in its early stages and its side effects treated. This is followed up, especially in the case of lepromatous patients, by periodic visiting of the patients in their homes for ensuring their regular attendence at the dispensaries. Patients are intimated previous day (evening) and on the clinic day. In the clinic, they are examined and treated for leprosy, skin diseases and other minor ailments dressings done, smears and biopsies performed.

'H' Ward - 13 clinics, 'P' ward - 10 clinics.

DETAILS OF THERAPY:

Mainstay Dapsone other drugs Rifampicin, Clofaziminé, Isonex and Thiacetazone etc.

FOURTH LEVEL OF WORK IS REHABILITATION:

This means rehabilitating the leprosy patients in their normal home environment in various ways through education of the younger patients, and generally providing any profitable occupation for the patients suitable to their socialassimilation in wider society. Financial help is given to the most needy patients through repairing huts and providing ration.

Care is taken to underline the fact that project activities do not consist only in merely giving out treatment to patients. In fact tis is a comprehensive community health work beneficial not only to the patients and to their families but to the community as a whole.

Though the Mandal has represented work at four levels, equal emphasis is given to all levels of work.

PHYSIOTHERAPY SECTION:

Report upto the end of the year 1980.

The role of physiotherapy in a leprosy control programme cannot be over emphasised. Physiotherapy is aimed at prevention of sequele, and is a pre-requisite for rehabilitation of leprosy patients. The Mandal has services of a full time physiotherapist for this job. Physiotherapy services are offered at all the field clinics, and a central unit for intensive physiotherapy is being envisaged.

Upto the month under report, out of 2910 cases registered, 241 cases has been recorded for deformity, [as per WHO classification]and their type-wise, grade-wise distribution is as follows:-

Deformity Grade:	CLASSIFICATION			
	L	N	N?L	TOTAL
I	32	28	35	95
II	40	26	36	102
III	12	5	27	44
TOTAL:	84	59	98	241

[Types of Physiotherapy services offered]

1. Advice on care of hands and feet - all patients grade I and above.

(continued)

2. Hydrotherapy, oil application and specific exercises -- all patients grade I and above.

3. Ulcer dressings - at field clinics as required.

4. POP splints - static and dynamic [upto the month under report, 10 such splints have been provided].

5. Footwear - ordinary chappals including MCR sandals - about 100 pairs, 4 spring shoes, 4 rigid moulded shoes.

6. Referrals for reconstructive surgery - so far, 6 cases have been referred for surgery, at J.J.Hosital and Sion Hospitals. Surgery includes Tendon Transfers, and Pre and Post operative physiotherapy are managed at the field clinics itself.

7. Referrals for rehabilitation - deserving cases are continuously referred to the rehabilation unit, and follow up for physiotherapy assessment is being carried out.

Physiotherapy also includes the provisions of artificial aids to patients with injured and anaesthetic limbs.

HEALTH EDUCATION:

Health education is one of the major procedures in the control programme of leprosy. It is a process by which the orthodox attitudes, knowledge and practices can be diverted and simultaneously prevent illness and promote health by their own efforts.

Before the surveys are conducted in various areas, leaflets painted in various languages are distributed to the people in that area. This approach helps us in receiving all the co-operation we need. The Mandal organises slide shows, film shows, group talks, exhibitions, doctors seminars, and press conferences. The effect of such programmes is obvious, by the number of voluntary cases which consititute 27% of the total cases detected. The enthusiastic co-operation of the public towards our control programme is also evident.

Particulars of Health Education Programmes conducted by Maharashtra Lokahita Seva Mandal are given below:-

Sr.No:	P R O G R A M M E S	NOS	APPROX: ATTENDANCE:
1	Slide shows	51	3,876
2	Film shows	40	59,425
3	Exhibitions	7	26,410
4	Doctor's Seminar	1	52 [doctors]
5	Press conferences	2	35 [reporters]

S T A F F:

1. Medical Officers 2
2. Field Officer 1
3. Non-medical Supervisors..... 2
4. Para-Medical workers.....11
5. Under Training P.M.W..... 2
6. Health Educator ..... 1 [also trained P-M Worker]
7. Physiotherapist ..... 1 [" " " "]
8. Laboratory Technician ..... 1 [" " " "]
9. Untrained workers 7
10. Drivers 2
11. Peon 1
12. Typist 1
13. Social Worker 1
14. Accountant 1

(CONTINUED)

TOTAL KNOWN CASES UPTO THE END OF THE YEAR 1980 [since beginning]

MODE OF DETECTION:	Enumerated:	Examined:	%	L	N	N?L	Total
Mass Survey	2,76,250	1,99,150	52%	114 7.1%	1334 83.1%	157 9.8%	1605 100%
School Survey:	57,686	49,928	17.6%	-	517 95.2%	26 4.8%	543 100%
Contact Survey:	8,416	6,180	3.2%	9 9%	83 83%	8 8%	100 100%
Voluntary cases:	6,347	6,347	27.2%	61 7.3%	652 77.5%	128 15.2%	841 100%
T O T A L:	3,48,697	2,61,605	100%	184 6%	2586 83.7%	319 10.3%	3089 100%

TOTAL REGISTERED CASES UPTO THE END OF THE YEAR 1980[since beginning]

MODE OF DETECTION:	L	N	N?L	T o t a l:
Mass Survey:	110	1091	147	1348
School Survey:		442	19	461
Contact Survey:	9	74	8	91
Voluntary cases:	61	645	128	834
T O T A L:	180	2252	302	2734

TOTAL KNOWN CASES UPTO THE END OF THE YEAR 1980 [since beginning] AGE, SEX, AND TYPE WISE DISTRIBUTION:

Mode of detection	L					N					N?L					Grand Total
	M	F	Mc	Fc	Total	M	F	Mc	Fc	Total	M	F	Mc	Fc	Total	
Mass Survey:	66	44	-	4	114	368	550	191	225	1334	70	55	20	12	157	1605
School Survey:						19	14	248	236	517	2	-	14	10	26	543
Contact Survey:	7	1	1	-	9	17	29	22	15	83	6	1	1	-	8	100
Voluntary Survey:	39	20	1	1	61	176	228	130	118	652	52	51	15	10	128	841
T O T A L:	112	65	2	5	184	580	821	591	594	2586	130	107	50	32	319	3089

(continued)

A T T E N D A N C E:

T Y P E:	No.of Patients:	75-100%	50-75%	25-50%	1-25%	N i l
Lepromatous	160	146 91.2%	7 4.3%	3 2%	4 2.5%	- -
N?L:	286	205 71.7%	11 3.8%	16 5.6%	54 18.9%	- -
Non-Lepromatous:	1955	990 50.6%	303 15.5%	229 11.5%	296 15.2%	137 7%
T o t a l:	2401	1341 55.9%	321 13.4%	248 18.3%	354 14.7%	137 5.7%

Registered cases deleted upto the end of the year 1980 [since beginning]

L - 20, N?L - 26, N - 287. T o t a l ..... 3 3 3.

Prevelence rate : 12/1000.

Total No.of Adult leprosy cases - male 822[45.3%] Female - 993 [54.7%]

Total No.of child leprosy cases - male 643[50.5%] Female - 631 [49.5%

% of adult leprosy cases - 58.8%

% of child leprosy cases - 41.2%

% of cases voluntarily detected - 27%

Smear taken of all new cases (N?L & L)

Inactive cases - at the end of the year - 1980 - 4 7 8

Released from control ---------- - 2 9

Repairing of houses [leprosy patients] ------- - 8

Rehabilitation of the patients ---------- - 1 2

Ration for the patients ---------- - 1 5

Helping school children [leprosy family] ----- - 4

Clinic Attendance ---------- - 87.3%

DISPENSARIES RUN IN 'P' WARD (MALAD):

Sr. No.	Name & address of the dispensary:	Day and Time	Remarks
1.	Nagrik Seva Sangh, Quari Road,Dhanjiwadi,Malad (E), MALAD (EAST)	Monday 8.30 to 11.30 A.M.	
2.	Hanuman Temple, Near Malvani-Church,Bhandarwada, MALAD (WEST).	3.30 P.M. to 5.00 P.M. Monday.	(evening)
3.	Raipada, MALAD (WEST)	Monday. 8.30 A.M. to 10.30 A.M.	(once in a month)
4.	Friend's Welfare Centre, Plot No.2, R.No.3, Collector's-Compound,Gate No.5,MALAD (W):	Tuesday 8.30 A.M. to 11.30 A.M.	
5.	Manori Church Building, Manori-Via Malad, BOMBAY-94.	Wednesday 9.00 A.M. to 1.00 P.M.	
6.	Shanker Temple, Near The Nalla, Orlem, MALAD (WEST)	Thursday 8.30 A.M. to 11.30 A.M.	
7.	Dr. Jain's Clinic, Pushpa Park, MALAD (EAST).	Thursday 3.30 P.M. to 5.00 P.M.	(evening)
8.	New Malavni Health Centre, M.H.S. Colony, Gate No.7, MALAD (WEST).	Friday 8.30 A.M. to 11.30 A.M.	
9.	Dr. Vinod Shenoy's Clinic, Near Shah and Sanghi Garage, Kanchpada, (Orlem).	Saturday 8.30 A.M. to 10.30 A.M.	
10.	Sayed Bakery, Gudiapada Orlem, Malad (west).	Saturday 10.30 A.M. to 12.00 noon.	
	DISPENSARIES RUN IN 'H' WARD:		
1.	Hanuman Temple, Gaondevi, Santacruz (East).	Monday, 8.00 A.M. to 11.00 A.M.	
2.	Muslim League Office, Ambewadi Road, Jawahar Nagar, Khar (East).	Monday, 3.00 P.M. to 5.00 P.M.	(Evening)
3.	Makin K.G. Classes, Masjid Road, Golibar, Santacruz (East).	Tuesday, 8.00 A.M. to 11.00 A.M.	

(Continued)

Sr. No.	Name & address of the dispensary	Day and Time	Remarks:
4.	Opp: Yoga Asram, Prabhat Colony, Santacruz (East).	Tuesday, 3.30 P.M. to 5.00 P.M.	
5.	Panduran Vakil Wadi, Vakola Masjid Road, Santacruz (East).	Wednesday 8.00 A.M. to 10.30 A.M.	
6.	Balwadi, Siddharth Nagar, Santacruz (East).	Wednesday 10.30 A.M. to 12.00 Noon.	
7.	Zopadpatti Sangh, Hanuman Tekdi, Santacruz (east).	Wednesday, 3.00 P.M. to 5.00 P.M.	(Evening)
8.	Sudha Mandir, Manipada, KALINA.	Thursday, 8.00 A.M. to 11.00 A.M.	
9.	Satguru Chawl Committee, Jaihind Nagar, Khar East.	Thursday, 3.00 P.M. to 5.00 P.M.	(Fort-nightly)
10.	Om Bharat Vyam Shala, Jawahar Nagar, KHAR EAST.	Thursday, 3.00 P.M. to 5.00 P.M.	(Fort-Nightly)
11.	Congress Office, Vakola Bridge, Santacruz (East).	Friday, 8.00 A.M. to 11.00 A.M.	(also in the evening)
12.	Mahila Mandal, Shastri Nagar, Kalina, Santacruz (east).	Saturday, 8.00 A.M. to 10.30 A.M.	
13.	Mahila Mandal, Jamlipada, Kalina, Santacruz (East).	Saturday, 10.30 A.M. to 12.00 noon.	

Dr Karagasabha

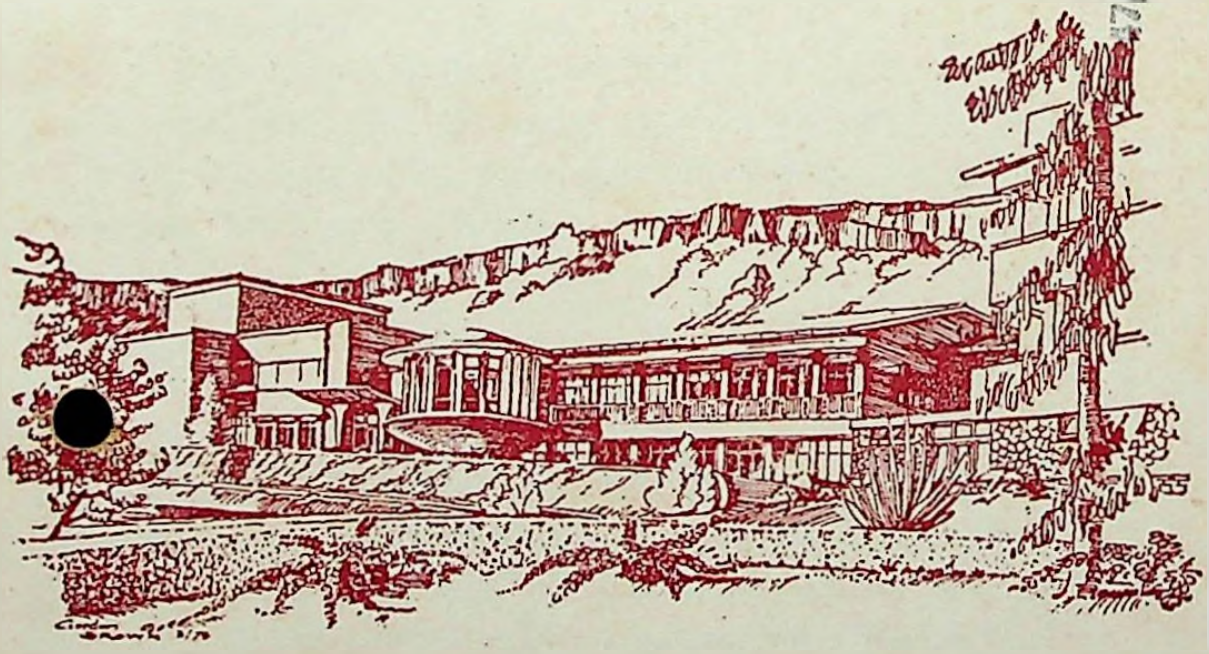
Maharashtra 27

WIDER HORIZONS in HEALTH CARE

A Workshop on the theme,

"FROM APATHY TO AWARENESS and ACTION."

JANUARY 26th - 30th 1977
at the
MORAL RE-ARMAMENT CENTRE
Panchgani, Maharashtra.



COMMUNITY HEALTH CELL
97/1, (First Floor) St. Marks Road
BANGALORE - 560 001

★ *In India 80% of our doctors have settled in cities, providing medical care to only 19% of the country's population.*

★ *Three out of four of all ill cases do not get any health care whatsoever.*

★ *Two out of three deaths are not attended by any medical help.*

Fortunately in recent years, people have started becoming aware of the real needs of the community and of the steps required to meet this, keeping in mind our limited resources.

The Government, the World Health Organisation and the World Bank are allotting more funds for new plans for community health and integrated community development. But in order to make any plan work people are needed who believe in action and are ready to reset their priorities in life.

PURPOSE OF WORKSHOP

Conferences of Government officials along with doctors are being held gainfully in connection with community health. But we feel the need for a workshop where the medical students and students of agriculture, animal husbandry, social science, anthropology, architecture and engineering meet others who are having a satisfying experience of working in the rural and urban areas where development is needed. The village heads and community leaders also need to express their deeply felt needs to those in the health profession.

It is hoped that this workshop will attract and involve more people in the above-mentioned fields, and that the five days spent together at the Moral Re-Armament training centre will help motivate participants. This could have the result of widening the base of dedicated men and women who take responsibility of working towards total health care in rural and urban communities.

TOPICS FOR DISCUSSION:

(i) Review of present conditions in community health care. Realistic approach towards community health care.

(ii) Nutrition and sanitation — the community's role.

(iii) Integrated community development — what it takes. Role of agriculturist, architect, engineer, teacher, social worker and doctors.

(iv) Moral aspects of total health care — how to get along with one's colleagues; team work, an honest and unselfish approach to problems.

DATES:

Wed. Jan. 26	—	opening session at 5.00 p.m.
Jan. 27 - 29	—	continuing sessions.
Sun. Jan. 30	—	closing session (11.00 a.m. - 12.30 p.m.)

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SPONSORS:

Dr. Rajnikant and Dr. Mabel Arole, Director and Co-Director, Comprehensive Rural Healh Project, Jamkhed.

Dr. P. M. Shah, Prof. of Paediatrics, Grant Medical College, and J. J. group of hospitals, Bombay, (Hon.) Project Director (Tech.) Kasa Model Integrated Mother-Child-Health-Nutrition Project, Primary Health Centre, Kasa.

Mrs. A. G. Sigamany, Principal Leelabai Thackersey College of Nursing, Bombay.

Dr. Vasant Talwalkar, Paediatric Surgeon, Jt. Sec. Indian Medical Assoc. (Bombay).

Dr. A. M. Raut, Jt. Sec. National Integrated Medical Association.

Shri Krishnadas Shah, hon. adviser to the Govt., (Rural Devel. Dept.) Maharashtra.

Dr. Satish Tibrewala, Member Editorial Board, Medico Friend Circle Bulletin.

Dr. R. K. Anand, Assoc. Prof. of Paediatrics T. N. Medical College and Nair Hospital.

CONTRIBUTIONS:

(includes registration fee, boarding and lodging).

Rs. 200/- per delegate for the entire workshop.

Rs. 60/- per student delegate for the entire workshop.

Any cheques should be made in favour of Friends of Moral Re-Armament (India).

REGISTRATION:

For further details regarding the workshop please write to the organising secretary.

DR. R. K. ANAND

55, KAVI APARTMENTS, WORLI, BOMBAY 400 018.

Telephones: Resi.: 377358 Office: 354699 (3.00 - 6.00 p.m.)

VENUE: See next page

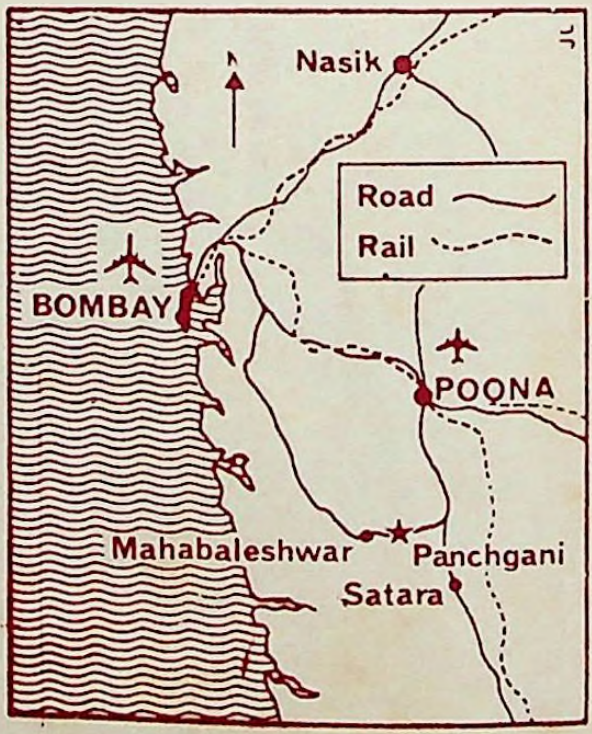
VENUE:

Asia Plateau,
PANCHGANI.
Maharashtra 412 805
Telephones : Panchgani 75 or 98
Cables : Neworlnews Panchgani

Panchgani is 248 Km from Bombay and 100 Km from Poona, which is the nearest station and airport. State Transport buses and taxis leave from outside Poona Station for Panchgani. The last bus departs at 4.30 p.m. The State Transport buses also run direct from Bombay to Panchgani.

Panchgani is at an altitude of 1300 metres. Bedding is provided for delegates, but it is advisable to bring a pullover or jacket to wear in the evening.

Excellent conference facilities are available and over the last years hundreds have attended seminars and conferences at this centre to discover new and unselfish approaches to problems.



"INDUSTRY IN THE SERVICE OF THE NATION"

Three Seminars will be held at the Centre for Moral Re-Armament at Panchgani, Maharashtra, as follows:

6—12 October, 1974

3— 9 November, 1974

4—10 January, 1975

Since 1969, the facilities at the MRA Centre at Panchgani have been available for companies to send delegations of workers, junior and senior management. These have included Bajaj Auto Ltd., Delhi Cloth and General Mills Co. Ltd., Karamchand Thapar and Bros. Pvt. Ltd., Khatau Makanji Spinning & Weaving Co. Ltd., Kirloskar Oil Engines Ltd., Philips India Ltd., Polydor of India Ltd., Steelsworth Pvt. Ltd., Tata Engineering and Locomotive Co. Ltd., and Wanson (India) Pvt. Ltd.

The daily programme will consist of two plenary sessions, informal group discussions, films and audio-visual aid presentations and recreation. Sessions will commence on the evening of the first day and conclude on the morning of the last day.

The subjects being dealt with in the Seminars will include:

Industry's fullest role in the nation

Confrontation, co-operation or chaos

Productivity and partnership in industry

Automation and humanisation

The factory and the family

The unique element of these sessions is workers and managers sharing their experiences together, studying the art of tackling human bottlenecks at all levels of industry and learning how to find "what is right" rather than "who is right" in every situation. The study goes beyond industrial relations techniques to the fundamentals of changing people whose prejudices and points of view can be the nation's most expensive overhead. Others also attending the sessions will include professional men, teachers and students.

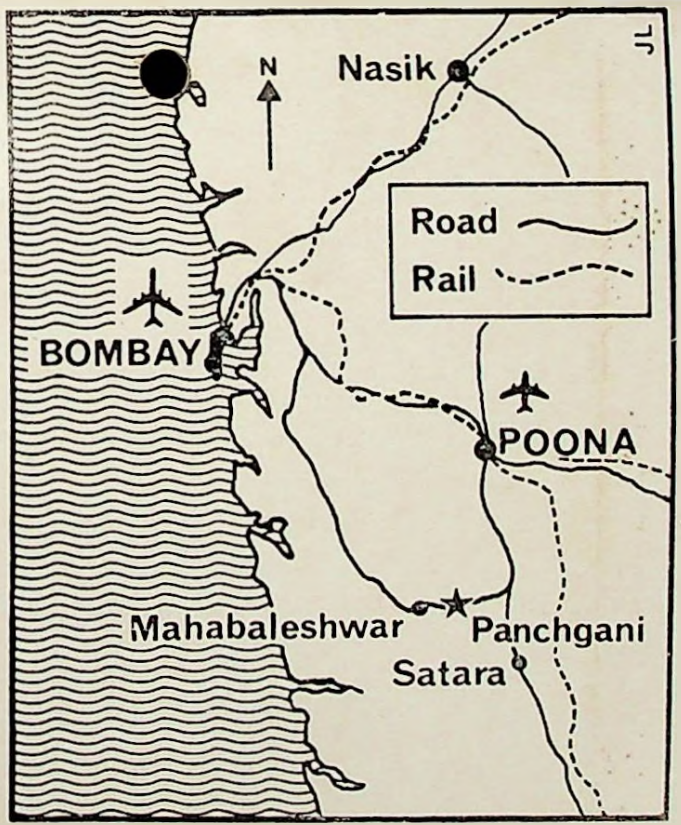
The Chairman of Khatau Mills sends delegations to every session. One of his factory managers says that the whole atmosphere of the factory is very different. Disputes have been settled by men trained at Asia Plateau.

Please use the enclosed form to apply for reservations for these sessions. A deposit of Rs 25/- per delegate should be sent along with the application. Rs 300/- payable on arrival covers all conference expenses including meals, accommodation etc., for each participant.

Panchgani is 167 miles from Bombay and 63 miles from Poona, which is the nearest station and airport. State Transport buses and taxis leave frequently from outside Poona Station for Panchgani. The last bus departs at 5-20 p.m. State Transport buses also run direct from Bombay to Panchgani.

Further information from The Conference Secretary, Asia Plateau, Panchgani 412 805, Maharashtra. Cables: NEWORLNEWS.

Telephones: Panchgani 75 or 98
Bombay 395394 or after office hours 365670
Delhi 277253 Madras 663894 Poona 54653



A home for the homeless

by Sallie Wood

THE new building glints in the sun. Soon its four wings will be home to the laughter and longings of 40 orphans who find their way to the Godavali Education Centre in Panchgani, Maharashtra.

This building stands monument to 16 years of patience, of commitment and, above all, the astonishing faith of the initiators, Mr and Mrs Homi Shroff. Defying conventional retirement, this middle-aged Parsi couple sold their Bombay furniture business to put all their savings "to the last rupee" into a project with an aim to "bring up orphans and destitute children on the true pathway of life without any distinction of caste, colour or creed".

But, confesses Mr Shroff, he had no conception of the consequences of this idea. "We thought in our lifetime we would bring up eight to 10 children. We never knew we would grow so much. God has planned for a long time." Eyes alight, Mr Shroff's determination belies his thin frame.

Homi Shroff had spent 20 years in the furniture business before he and his wife felt a "spiritual call" to work for children. Mrs Nergish Shroff had worked in a school for children in need of special care for eight years. Armed only with this experience, the Shroffs began to search for land to house an orphanage. When in 1964 they purchased 70 acres of land for the price of two, Mr Shroff says: "That was the first green light God gave us."

Situated one and a half kilometres from the Panchgani bazaar, the site overlooks open expanses of rolling hills that seem to unfold to the horizon. Mr Shroff describes the first three years of preparing the almost barren hillside. "There was no cottage, no well. We had to purchase water at that time and carry it on our shoulders. We planted all these trees with our own hands." He points to tall trees which stand silent witness to the last decade or more.

Gradually the first children began to arrive. "We bring them through the juvenile court. And we select those who are really needy, without any parents. Formerly we used to take private cases, but seven children were taken away by blackmail. So we have stopped that."

He talks of the time when they brought in three sisters whose mother died of tetanus. Six months later their father also died. Another boy, had lost both his parents in a train accident when the Shroffs discovered him. Four 21-day-old babies came in, whose mothers had died in childbirth. Mr Shroff explains that when the children ask about their backgrounds, they are told unevasively. "We inform them. It is better to let them know the answers rather than wait for them to know from outside." The Shroffs have a separate file for each child.

Now 24 children form the Shroffs' current "family". "They come up slowly. Most are underfed children. They have had vitamin deficiencies." They arrive often covered with sores and suffering from rickets.

Sixteen of these children attend local schools — studying in the Hindi, Marathi and English medium. The annual expenses for one child works out at Rs 1500. Of this, roughly Rs 35 a month is covered by a government stipend. The Shroffs depend heavily on donations from friends and visitors, as well as the help and backing of their 14 trustees.

The Godavali Education Centre is registered under the Public Trusts Act with the Charity Commissioner of Bombay. In 1976-77 the Centre became affiliated to SOS Children's Villages (Balgrams), Maharashtra. After World War II in 1949 Dr Hermann Gmeiner had established the world-wide SOS movement for children in distress. Coinciding with the Shroffs' own beliefs, the SOS aims at children being brought up in a homely environment, with one foster parent, preferably in small groupings of eight or 10 children so that each

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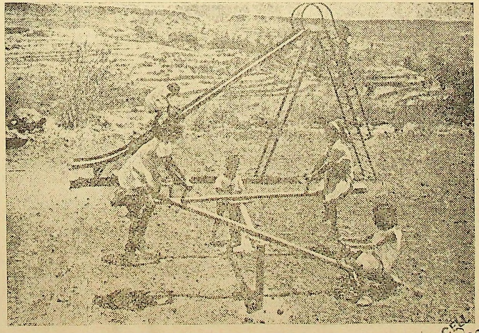
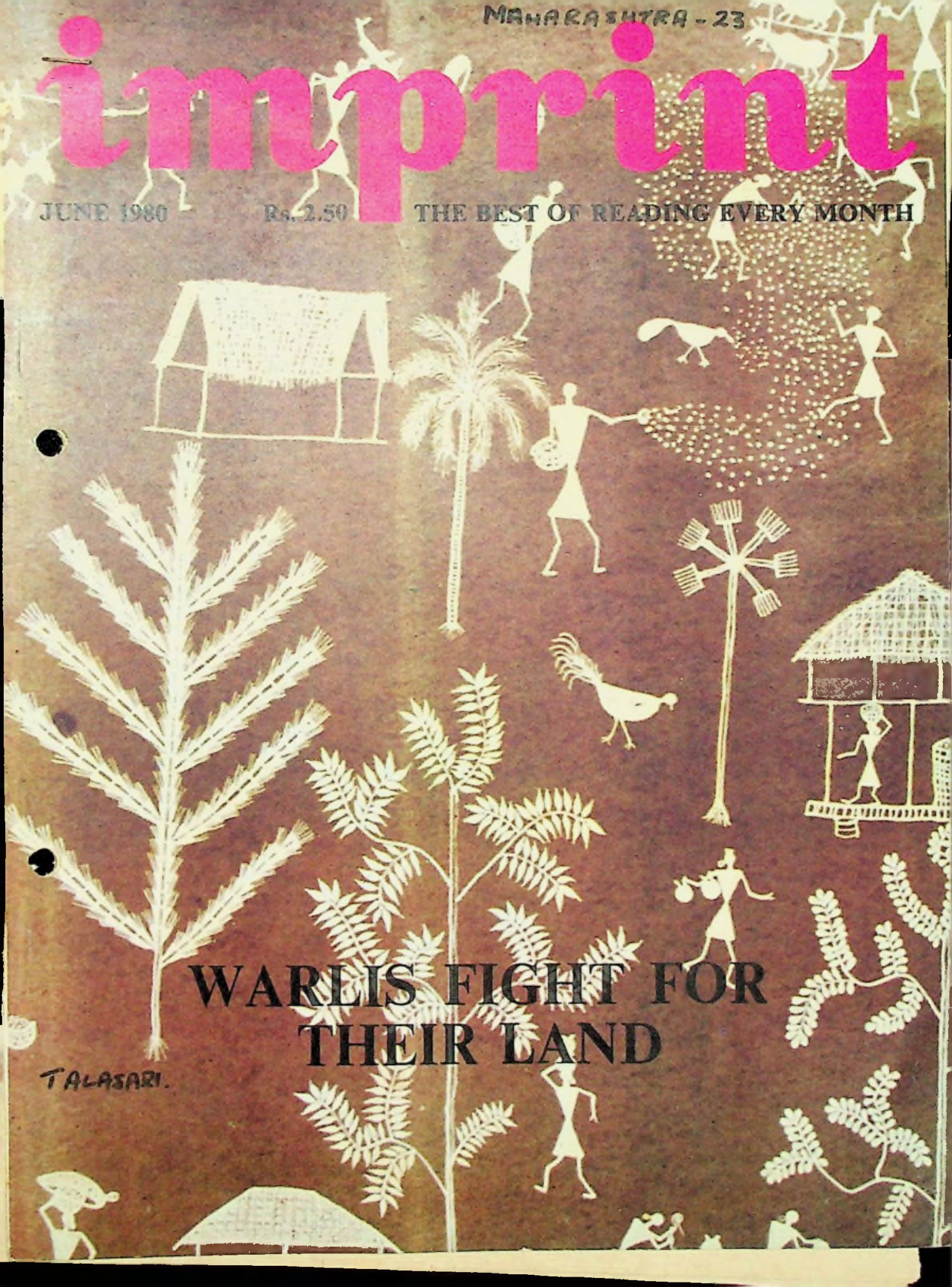


CHILDREN OF THE ORPHANAGE: having their longings fulfilled.

MAHARASHTRA - 23

imprint

JUNE 1980 Rs. 2.50 THE BEST OF READING EVERY MONTH



WARLIS FIGHT FOR THEIR LAND

TALASARI.

Feet still dusty from the fields and forests, about 800 tribals from Dahanu marched to Bombay. (Pic: Chandu Mhatre)

WARLIS FIGHT FOR THEIR LAND

By Sunil Shanbag (SOL)
Pics: Bimal Maskara (SOL)

The land in the villages of Dahanu was once owned by the Warli tribals who had cleared vast tracts of forests. Over the years, most of their lands passed into the hands of powerful landlords from Dahanu. The landlords in their turn have used this to exploit the tribals both physically and economically. But now the Warlis have realised their rights. Once they would hide at the approach of a stranger. But that was a long time ago.

The innocent air travellers will at least be spared all the trouble of being frisked and searched!

* * *

ON HEARING that alleged hijackers are given tickets for the Assembly elections, a Delhiwala says that Lalwani should take comfort from this incident. He says Lalwani can hope for a ticket too when favourable winds blow later!

There is a very interesting theory about Lalwani's motivation for having "attempted to murder" the P.M. Many persons in Delhi seriously believe the following story. Lalwani was a frustrated, unemployed youth who was also chronically sick. While he was angry with the government and its policies, he had no reason to commit the sort of foolhardy act that he did on April 14. He did not seem mentally unbalanced either. The real motive, the story goes, was to obtain good medical attention for himself as he was suffering from jaundice, tuberculosis and acute pericardis. If this is true (several persons are willing to lay a wager on this), Lalwani must be credited grudgingly with some ingenuity. Perverse logic, may be, but his reasoning is original! What is more, his project seems to have succeeded as an impressive panel of doctors examined him and the best of medicines were administered! Here is hoping some other young man will not emulate Lalwani's path to getting for himself his much needed daktari, kapda aur makan!

* * *

"ASSAM dur ast" is how a citizen of Delhi is wont to consider the extremely explosive situation prevailing in Assam. Assam is indeed dur ast for most people in India and hence one cannot easily imagine the seriousness of the problem there. In Delhi, however, the civil servants who are dealing with the crisis are able to give a balanced view of the happenings which make one very worried. The agitation is now nearly nine months old and shows no signs of letting up. It has touched off a similar situation in Manipur. There is no doubt that Mrs. Gandhi has faced no internal problem of such magnitude before. Judging by the results, all the strategies of the centre hitherto have failed. It was the carrot policy, followed by the stick policy followed by the carrot and stick policy, all of which were mistimed and hence did not succeed. New Delhi's bureaucrats say that their responses were based on the appreciation of the situation from time to time and blame the Assam State Government and the centre's own monitoring agencies in the Home Ministry for incorrect assessments. The price we are paying for this ineptitude is Rs.25 crores a day, not counting the human misery and the long term damages to the fabric of the nation. It hurts us when someone says that all this could have been avoided if the carrot, the stick and the carrot and stick had been tried at the appropriate moments and the situation would have been controlled long before it reached the confrontation stage. Without any doubt, the Home Ministry is answerable for this fiasco and perhaps Mrs. Gandhi will take time off very soon to take a severe look at this Ministry and infuse some dynamism and efficiency among its cadres.

* * *

IT WAS ON April 4, 1980 that Mrs. Gandhi observed that wasteful expenditure and ostentation should be avoided in India and asked her colleagues to set an example. She made a pointed reference to elaborate dinners and extravagant marriage ceremonies. Two months have passed since then, but there are not even feeble attempts to follow Mrs. Gandhi's advice. New Delhi's fashionable areas and ministerial quarters continue to be the most incorrigible conspicuous consumption areas. For marriage ceremonies, dinners are ordered from five star hotels and enormous quantity of food wasted. Power shortage does not deter our leaders from blazing all the lights at even ordinary functions. Why is it that our political leaders and big businessmen who are anxious to please the P.M. do not take the cue in a matter like austerity? One of the ways to punish this vulgarity would have been for the P.M. to announce that those against whom there were complaints of such extravagance would not qualify for tickets to the assembly elections. Naive as our politicians are, it would not be surprising if some of them arranged a multi-course dinner at a five star hotel to announce during the after-dinner speech that they were always wedded to simplicity and austerity!

* * *

OVERHEARD in a New Delhi motor car garage: "My advice as a mechanic, sir, is that you keep the oil and change the car!

THE END

GOPAL BODHLE'S face was set in an expression of intense concentration as he urged his group of fifty tribals, into the main body of the 800-strong procession of Warlis, towards Bombay's Flora Fountain. He danced around them on his wiry legs, never letting them flag or break formation and calling the slogans out loud. Curious office-goers stared at the tribals, whose bare feet and clothes still carried the reddish-brown dust of the fields and forests of the Palghar, Dahanu and Talasari talukas of Maharashtra's Thane-district, 120 kms north along the coast.

The women led, with black hair neatly oiled and rolled into buns, wearing the characteristic half sarees with bare midriffs and faded blouses. The men, wearing rough shorts and faded, torn shirts, some clutching old and tattered umbrellas, followed. The rhythmic gait of the tribals, a people accustomed to walking long distances, belied their tiredness.

They had woken early the day before in the cool darkness of their huts, packed a few dry rice bhakars (a shortcrust chappati) and set out on a trek of almost 30 kms through dark forests and dry fields, to converge at Dahanu Road station for the early morning train to Bombay. The little cardboard badges they wore identified their organisations. Most of them belonged to the Kashtakari Sanghatana, with its symbol of a raised clenched fist between scales. The tribals marched, shouting slogans, demanding that the government recognise their ownership of the forest lands they have been cultivating for over nineteen years.

Gopal Bodhle, 32, comes from the village of Shishne, which lies behind a gently rising hill about 30 kms north-east of Dahanu. The village consists of several clusters of huts, neatly thatched with large leaves and evenly spread grass, weighed down by a few dry branches, and separated from each other by paddy fields. Gopal's hut is one large room with a small porch where visitors may sit on a wooden bench. The square walls are made of dried stalks of jowar bound together and plastered with mud. The hut is supported by a sturdy frame of dark teak from the forests to the east of the village. It is dark inside and the only source of light is the cooking fire in the corner, because the Warlis do not build windows into their walls.

In the coolness of this hut, Gopal lives with his two wives and five children, ranging from less than a year to six years. The children play on the packed mud floor a few feet away from Gopal's two bulls who share the hut, chewing contentedly, their large black eyes gleaming in the firelight.

Gopal's father, Ramji Devji, was the village police patil. On a salary of Rs.10 a month, he could barely support his large family of eight; two wives and six children. His family owned only a few acres of uneven grazing land.

But this was not always so. According to Gopal and others of Shishne, all the land around the village was owned by the Warlis who had cleared large tracts of forests. Over the years most of their land passed into the hands of powerful landlords from Dahanu. The Warlis depend entirely on their land to feed them through the year. When the monsoons fail, they have little to eat, and are forced to approach the landlords for food or money.

Gopal's father, like many others, entered into an agreement with a landlord from Dahanu. The major part of the produce from his land was sent to the landlord and he was allowed to keep just enough rice to see his family through the lean monsoon months. This system, known as the khand, bound most Warlis and more often than not backfired on them. "Even if the crop was poor," says Gopal, "we had to give the seth a fixed number of bags of rice, though we would have nothing left for ourselves. Apart from this, my father had to work on the seth's farm without being paid for it."

Eventually Ramji Devji and the twenty other Warlis who had pledged their lands to the same landlord somehow saved enough money to pay back the original loan and repossess the lands. Gopal's father's share, 31 acres, would have been sufficient—except that, counting Gopal's family and that of his five brothers, a total of 51 people depend on it for their food.

Lost Land

NOT ALL the Warlis managed to get back even part of their lands. About twenty years ago, several Warlis from the village of Karanjvira, two miles south of Shishne, were cheated out of their lands by Gulabchand, another Marwari landlord from Dahanu. Mahemitya, sitting on his haunches and rolling beedis from dried aptha leaves, is now a gnarled old man, but he remembers the incident well enough. "One day all the villagers who had pledged their lands to the seth were called to his house in Dahanu. My father was one of them. The seth told them that he was making arrangements to transfer the lands back to them

Waghoba, the tiger-deity of the Warlis, is drawn on wooden boards to keep out evil spirits.

and that they would have to put their thumb impressions on the transfer papers. Our elders were innocent. They did what they were told. The next year, after the first rain, when they went to work on the fields, they were stopped by the landlord's guard who told them that the land no longer belonged to them. To prove this, the landlord showed them their thumb impressions on the transfer papers, which actually said that the Warlis were willingly transferring their lands to the landlord. "These fields," Mahemitya says, pointing to a vast stretch of rich green paddy land, "were ours. Now the seth has planted cashew because it has a much higher market price. We get hardly enough from our patches to last us half the year."

In the monsoons, the food situation gets tricky. The previous year's rice is nearly over and the work on the new crop is only beginning. Every morning the tribals drink a plateful of hot kanji, bland boiled rice swimming in water. It has low nutritive value. "Some Warli families are so poor that they cannot even salt their kanji," says Gopal. Fresh vegetables are hardly ever seen, but the Warlis supplement their kanji with a pickled wild berry called kakad. Green and hard, kakad is marinated in salt water till it ferments and softens. Now it exudes a sour smell and has a strong aftertaste. A plateful of kanji and half a dozen kakads must keep a Warli going in the fields through the day.

Using their own bulls, or a pair hired from the landlord, they plough their fields and scatter seed. If the rains are regular and adequate, transplantation follows. Now the entire family is at the fields, because every land counts. This is one of the reasons why Warli culture permits bigamy. Gopal's father had two wives and so does Gopal. But more than two wives is looked down upon as an indulgence. "A Warli in Ambessari village has four wives," spits Gopal contemptuously.

The children help with the loads, graze cattle or simply play in the mud. Education gets low priority, especially in the monsoons. The rest of the year, when there is very little to do, Warli children attend school, if their village is fortunate to have one.

Gopal studied upto the fourth standard in Shishne's missionary school. The large tile-roofed hut houses a church, with a mud statue of St. Jacob and a wooden altar, as well as a

school. Gopal remembers his teacher, Augustin Kantela, a Warli convert, very fondly. "He understood us well," he says.

But Gopal's schooling was cut short by a cholera epidemic that ravaged Shishne. With no medical facilities, many Warlis succumbed. Gopal's father died; his two wives, and Gopal's elder brother followed. "In our village alone, at least twenty people died. There was no time to get a doctor from the town," says Gopal, agitated, as he remembers the helplessness and the terror among the Warlis. "I began working on my elder brother's land. He was married but had no children, and I wanted to help."

After two years on his brother's land, Gopal was employed to supervise Warli labourers on the plantation of Baphna, a landlord from Dahanu. He was given a hut to stay in on the plantation and was on call 24 hours a day because his work included any odd job either Baphna or his family wanted done.

"The seth would not give me food. I had to keep a stock of rice, which my family could hardly spare, and cook it in the hut," says Gopal. His monthly salary was Rs.30.

It was here that Gopal first met the men the landlords used, to physically control their Warli labour and to carry out their threats: migrant bhaiyaas from Uttar Pradesh, in search of jobs and money to support their large joint families in their home villages. They were strong and muscular, shrewd enough to realise that being in the landlord's pay against the Warlis was to their advantage. Being farmers, they understood the working of the plantations, and were detatched enough from the local population to carry out orders, however unjust. The bhaiyaas did everything from beating up erring Warlis, evicting them from their lands and guarding the landlords' property, to supervising the labour. They learnt the Warli dialect, and Marathi, but never mingled with the Warlis. Thus, ironically, the Warlis came to be controlled by the people who had the same social and economic background as them.

The seths often loaned the bhaiyaas capital to set up business, usually a grocery. Harishankar Rajnath Pande, 28 came to the area eight years ago. Several people from his village of Ghazipur had small shops in Dahanu. Harishankar had little difficulty in obtaining a job as a supervisor in a farm. He is a lean man, tall, with hostile, blood-shot eyes, and a constant expression of surliness and suspicion. He probably was good at his job, because within two years he had saved up enough to bring his wife, his brother Mahendra and his family to Dahanu, as well

A Warli woman shops at Harishankar Pande's provision store at Shishne.

as set up a grocery shop along the Bombay-Ahmedabad highway, a mile from Shishne village.

Harishankar stocks provisions the Warlis need from day to day: cheap masalas, sold in little packets, rice, kerosene, soap, tea dust, talcum powder in garish tins, low grade jaggery meant for cattle but also used to distill a strong homemade alcoholic brew, and sticky boiled sweets for children, stand on rows of sagging and blackened shelves against the back wall of the shop. The shop itself is a modified Warli hut, the front wall broken down to make way for two rough wooden benches and a crude waist-high serving counter. Large, framed pictures of Hindu gods adorn part of the back wall, where agarbattis burn through the day. The left wing of the shop is partitioned into a little room where the entire family of six lives.

High Interests

THE TRADERS' relationship with the Warlis has never been one of trust. Ill feelings are aggravated when the traders function as money-lenders during the lean months, charging interest rates the tribals can barely afford.

"We are here to make money," says Mahendra, one of the traders. "If a regular customer has no money, we offer him credit. If he has a bag of rice we buy it off him, keeping a 20 per cent margin to cover our transport expenses. What is wrong with that? After all, we are here for business. We don't go to the Warlis and offer them loans, they come to us."

The Warlis complain that the traders very often do not keep their side of the deal. Gopal remembers Wanshi Bopin, an elderly Warli woman from his village, who sold Harishankar 14 bags of paddy worth Rs.1,400. "For two years he paid her in small instalments, and each time only after abusing her," says Gopal.

Such is the distrust between traders and Warlis that no Warli sends his child to shop for anything expensive like kerosene or masala, for fear that the trader might cheat the child. Similarly, the traders demand to see the Warlis' money before handing over the goods.

Circumstances keep the two together. The trader depends on the tribals' meagre purchases to keep the business rolling, and the tribals need his cheap goods to survive.

The bhaiyaas on their part, have fixed a certain inferior status on the tribals that has strong cultural and religious overtones. For the past four months an elderly straightbacked man, foul-mouthed and with a tuft denoting his brahmin caste, has been living with Harishankar, Rajmani Ramsahai Chaube, 52 also from Ghazipur, performs religious services for immigrants from his village, in exchange for a small fee. When Chaube speaks in his loud voice and chaste Hindi, both Harishankar, his pupil in the village, and Mahendra, fall silent. Though Chaube has been in the area for only four months, he has already assigned the Warlis a place in the rigid hierarchy of the Hindu shastras.

"When Ram was in exile, he travelled south to the land of the demons living in the forests, to destroy them. That hill there," Chaube says, his eyes glinting as he points to a conical, heavily forested top, "was the home of the demon king Khardushan. You can still see the ruins of his fort. The forests were full of his followers whom Ram had to fight before he killed Khardushan himself. Ram had to kill Khardushan because the demon was a threat to the Hindu dharma. But the Warlis consider the ruins of his fort sacred. They claim that their god lived there," he says, leaving his listeners to draw the necessary conclusion.

Chaube tugs at his tuft and rolling it lovingly around his finger continues, "Of course I cannot be sure that the Warlis are descendents of the demon. . . . .so many aeons have passed since Ramrajya. But when I observe their dirty habits, their fondness for drink, their acceptance of two wives, their uncivilized behaviour, I cannot but come to that conclusion. Do you know," he blurts in excitement, "after they shit they don't clean themselves with water! They use leaves! They see me going every morning with a lota of water. . . . Can't they follow me?" Chaube's eyes are wide open with indignation.

Inadequate research has been done on the origins of the Warlis but historians generally agree that they are non-Aryan uplanders who moved south from the hilly terrain of the Vindhyas and Satpuras to the present coastal district. They have some traits in common with the Bhils, a tribe with a distinctive culture and an Indo-European language found in South Rajasthan and Gujarat. The Warlis probably assimilated other southern tribes like the Kolis and Kunbis, and imbibed the lower caste Maratha language and their customs.

The Warlis always refer to themselves as farmers. They cleared large tracts in the dense

forests of the coastal district and began to cultivate. The forest provided them with teak wood to build huts, wild fruit and berries like bel, tamarind and kakad when the food supply was low, herbs and medicinal plants like the rauwolfia serpentina (locally, sarpagandha), the karanj seed and the hirda fruit. The Warlis learnt that the corrolae of the moha flower yield alcohol on distillation, and they used this as the base for a strong drink. Even the forests, their deep relationship with the forest never changes.

Outsiders from the north-west began trickling in: Marwari farmers from Rajasthan, like the Bapinas who came to Dahanu 160 years ago, or Parsis, like Firoz Vakil's family, who came here as early as 1900. They found the soil virgin and rich, the rainfall adequate, the forests packed with a fortune in timber, and the local tribals friendly but childlike and intractable. The new settlers were determined to fully exploit the rich soil, and set up trading centres for the timber.

Dahanu was fast becoming an administrative centre for the British, and Vasai, about 60 kms down the coast, was a growing Portuguese base. Commercial activity was increasing, and after half a generation of sustained labour the outsiders had carved out farmlands for themselves around the small coastal towns.

The Marwaris and the Parsis acquired land from the tribals at ridiculously low prices. The severe drought of 1899 led to a famine, and hungry Warlis stumbled into the towns from the forests, looking for food. Sometimes land was sold for as little as a bag of rice or for Rs.5, and sometimes at 8 annas an acre. When the money or the bag of rice was over, the Warlis came back to the town and sold more land. Finally, when the rains came, very few had any land worth cultivating.

The landlords found the new and vast acquisitions difficult to control and cultivate. The Warlis returned, this time to beg for some work and the landlords hired them—provided half the harvest was paid to the landlord. This was the beginning of the khand system, and the bhaiyaa class of enforcers. Those Warlis who could not make do with their share of the produce, went into the forests and clandestinely cleared little patches to grow paddy and add to their source of food. Poverty and domination forced the Warlis into a culture of fear and silence.

The Priests

IN THE late 1920's, the first Catholic missionaries arrived. They were the Franciscan Brothers, a sect of black-robed mendicants who shunned the enclosed life of monasteries, and had a tradition of preaching and converting. They were also active educationalists and set up their first base at Uplat, a large village 12 kms from Talasari.

The Warlis practice a primitive type of Hinduism and animism. The tiger, Waghoba, is one of their important gods. Every Warli village is protected by Waghoba drawn on flat wooden boards sunk into the ground. The Franciscan Brothers attributed the Warlis' sickness, poverty and helplessness, to their primitive religious beliefs. They were partially successful in converting Warlis to Christianity, because the tribals were going through a particularly difficult phase.

Kaluram Dharma Dhangad, 32, dark and pug nosed, belongs to Shishne's first Christian family. His father was a well-known bhagat, (religious head among the Warlis). During a prolonged illness that his religious powers did not seem able to cure, he allowed the Franciscan Brothers to convert him to Christianity. "They told him that if he sought refuge in Christianity, the Hindu demons would stop tormenting him", says Kaluram with a smile that tells you he thinks it all nonsense. "After my family, about 25 other families in the village were converted by the missionaries."

The Franciscan Brothers set up schools, like the one in Shishne, to preach and to educate. But they ran into trouble with landlords who resented their growing influence on the Warlis. Several times, Franciscan monks were beaten up, and they withdrew from the area.

About 55 years ago, the Jesuits arrived, making Talasari their base. Though they continued running the schools set up earlier, they shifted their emphasis to developmental work. By 1966, their development centres were scattered over four talukas in Thane district.

The same year, the short ebullient priest, Father Stanislaus Miranda, a graduate in agriculture from the Laval University of Quebec and a veteran of Talasari for ten years, came to Ashagadh, six kms from Dahanu and set up a new development centre called the Shantivan Shetkari Seva Mandal. Father Miranda initially believed that the solution to India's poverty was to grow more food. When American PL-480

grain began pouring into India in the late '60s. Father Miranda used the Mandal's allotment to pay the Warlis who worked on development projects set up in close collaboration with the local Block Development Office. On a seven acre demonstration plot at Ashagadh, Father Miranda taught the Warlis how to level their fields, sow high yield paddy, construct stronger bunds and manage their water.

Alongside, Father Miranda began helping Warlis take up cases against landlords who had cheated them. When some of the Warlis won, others felt encouraged to approach Father Miranda.

Then, two years ago, abruptly, everything came to a halt. Old projects were phased out and no new ones begun. Governmental circles accused the Jesuits of using PL-480 grain and money to convert the Warlis. The priests, too, had realised that despite their work, the Warlis remained in a vicious circle of perpetual indebtedness, either to the priests or to the moneylenders. The priests' loans paid back the village moneylender. To repay the priests they reborrowed from the moneylender. The pumpsets the priests gave them remained idle because the tribals did not know how to maintain them.

The manner in which the mission schools were being run also came in for criticism. Kaluram Dhangad, from Shishne, finished high school from Talasari and then began teaching in the mission school in his own village. He had plenty to grouse about the way he as a teacher was treated and the way the school was run.

"I had about 80 students on my roll," says Kaluram, carefully weighing every word, "and I repeatedly told the Jesuits that I needed another teacher to help me. They refused, saying that they had no funds. Then, they began cheating me. On the pretext that I was not attending classes, they cut my salary. Scholarship money meant for students never got to them. All they received were a few note books and pencils. Eventually, in disgust, Kaluram went to the Jesuit headquarters at Talasari and threw down the school register and resigned.

"Our work made the Warlis dependent on us," says Father Miranda. "A few could keep up with the pace, but others were left behind. We are ashamed of it." At 59 he shut down his work of 23 years and went on a year's sabbatical.

In 1972, when Kaluram was training to be a teacher in the Gyanmata school in Talasari, he was impressed by a young Jesuit who was the acting principal of the school.

"I noticed that he understood the Warlis better than anybody else. Despite his liberal behaviour there was far more discipline among the students," says Kaluram.

Social Work

THE JESUIT, Peter D'Mello, was a philosophy graduate from Bombay who was working in Talasari as part of his training before being ordained. When Kaluram noticed him, Peter was going through a serious phase of introspection. All his life he had wanted to work with the poor, and this urge had made him join the Jesuits when he was only sixteen. But now he was rethinking the traditional concept of social work.

Peter, now 32, with short greying hair and deep-set intense eyes, says, "The boys at the school respected me, but one of them told me that I could never get close to them because I did not know what their reality was."

Peter went back to Bombay to do a course in Personnel Management at the Tata Institute of Social Science. "I was basically interested in Trade Union work, but in 1973, Rama Garat, a Warli I knew in Talasari, called me to Dapchari, a village 3 kms out of Talasari. He wanted me to help in an agitation of Warlis displaced by the setting up of a government dairy farm," says Peter. But the protest fizzled out and the Jesuit order expelled Peter from Talasari for his participation.

"The priests were worried that my involvement with the Warlis was compromising them with the police. When the police made enquiries about me at the mission, they disowned any knowledge of me," says Peter.

In 1976, Peter was ordained in Bombay. He immediately returned to Thane district, to live for a year with the Warlis of Kosbad village, studying their lives and understanding their problems. In 1977, Peter, now known among the Warlis as Pradeep, grouped with Kaluram whom he met at Ashagadh, and Nicky Cardozo, a priest from the Talasari development centre. The three planned the first of several camps called Festivals for Warli youth, at Zari village, 30 kms from Dahanu.

The objectives of the camp were: to help Warlis develop a self-image, to understand and analyse the nature of their exploitative environ-

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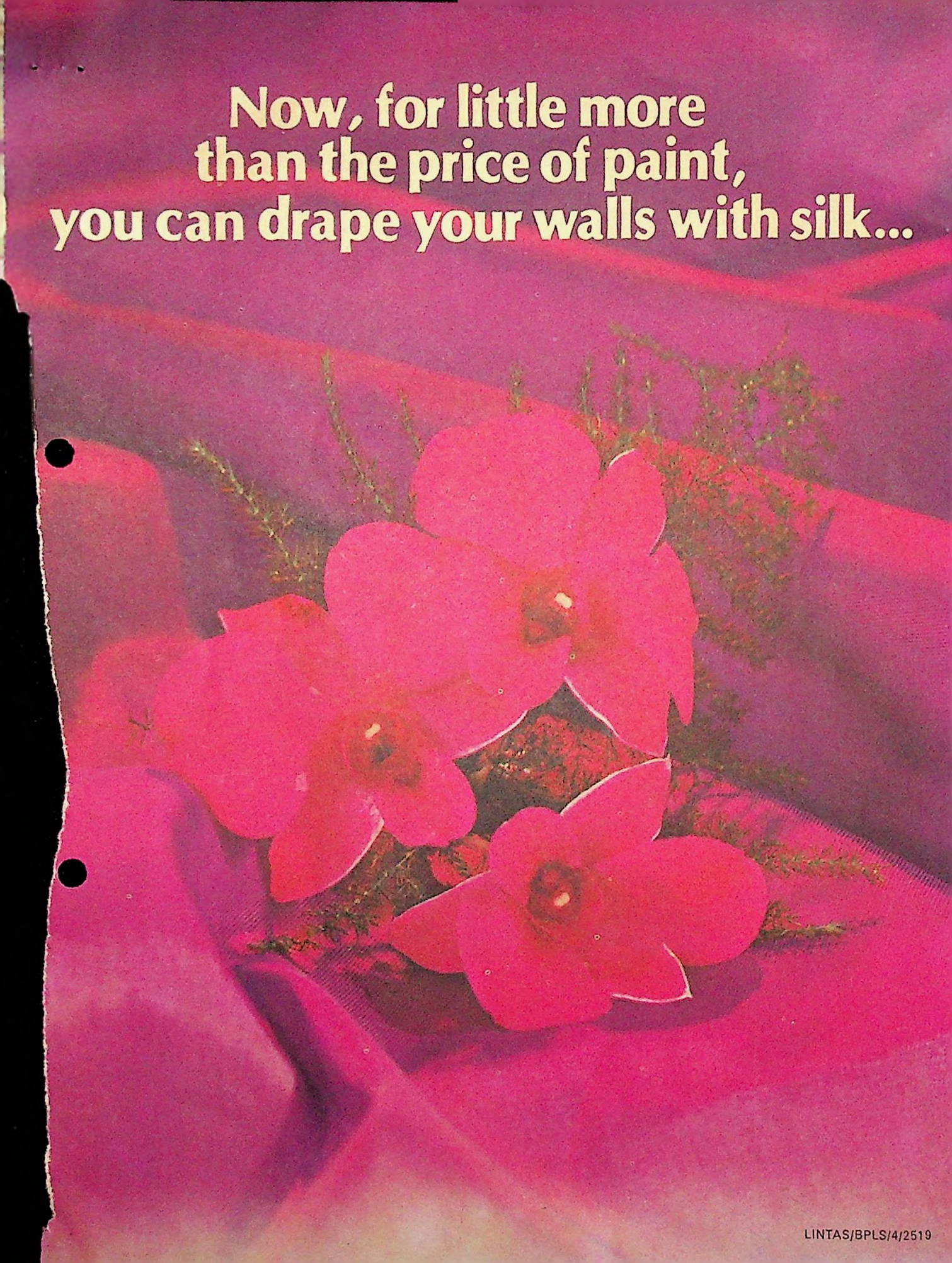

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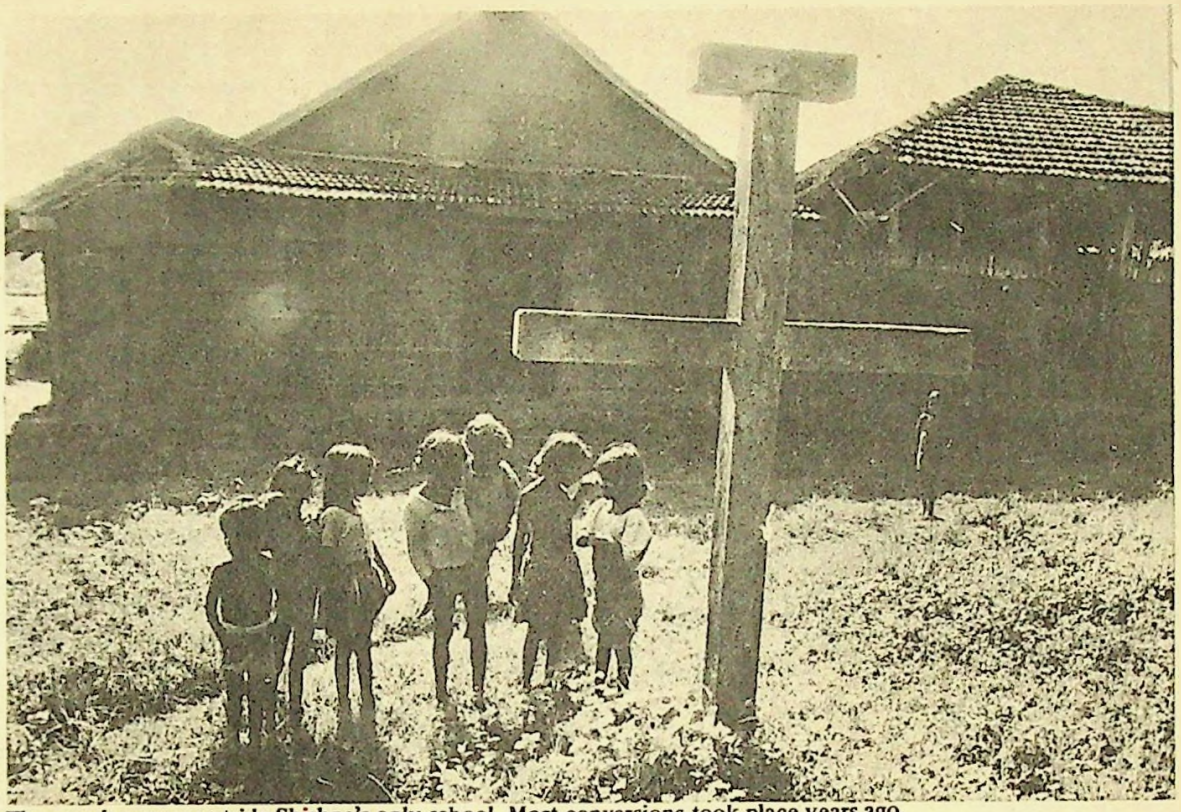


The wooden cross outside Shishne's only school. Most conversions took place years ago.

ment, and to visualise a new and equal society and the role they must play in it.

The first camp stretched over ten days. Peter had come equipped with a 170-page manual in which he had devised games and situations through which the Warlis could overcome their deep rooted fears and inhibitions.

"By making them play-act and therefore objectify real life, we tried to make them see their situation with detachment, and thus understand them better," says Peter. The tribals recreated the circumstances that lead them into debt with landlords, or the Kafkaesque situation when a Warli goes to the BDO for a loan and is confronted by a pile of forms and applications that he can neither read nor understand. Through songs, symbols, posters, and self-expression sessions, the Warlis were slowly led out of their years of silence into an awareness of themselves and the world around them.

The effect of the camps on some of the youth was profound. Jairam Ladkya Bhonar, 22, from the village of Nagzari attended one of the camps at Dongarpada village. Even though Jairam and several others fell ill during the camp, which closed prematurely, the experience haunted him. "When I returned home, I dreamt of the camp in my sleep and saw in it a way to do something for my people," he says. This lithe, bearded youth broke away from his father, a leading Communist Party of India (Marxist) activist because he wanted Jairam to work with the CPM instead of the 'padres' as he referred to Peter and Nicky. Jairam persisted with the camps despite threats from his former CPM associates and warnings from his father that he would lose his religion.

"The camp made so many things clear to us," he says. "Warlis always tend to blame themselves for everything. If the shopkeeper cheats us we felt that maybe we heard the price wrong in the first place and gave the shopkeeper excess money. The seths' power over us has grown so strong that we live in a world created by them for us. When we wanted some work done at the government office and the seth gave us a note of recommendation, the job got done immediately. When one of us wanted to get married, it was the seth who gave us the money. When we had no food we went to the seth. It became so that the village believed that if you did not work for the seth there was something wrong with you, and you were to be avoided."

"I did not expect this kind of commitment from them," says Peter talking about Gopal, Kaluram and the other Warli youth who attend-

ed the camps. "Now they can conduct some programmes in the camp better than I can because they understand the Warli mind so much better."

Nicky Cardozo, Peter's pleasant faced, stout companion, helped plan the first camp at Zari, but had not yet committed himself entirely to the new movement.

"I think I lacked the courage at the time," he says. "When I saw the sincerity of the youth at the camp, it came to me as a realisation that while I could always quit and return to security and a hot meal, the youth had nothing to fall back on."

Popular Action

IN JANUARY this year, the Warlis formed their own organisation, the Kashtakari Sanghatana. The Sanghatana met some difficulty in winning the confidence of the Warlis, but a series of successful campaigns against local traders soon gave it a popular image.

On January 10, the villagers of Shishne marched down to Harishankar Pande's shop and demanded that he pay Wanshi Bopin the Rs.800 he had owed her for two years. Harishankar paid up at once. The Warlis were overjoyed, but Harishankar is still bitter about it. "The women danced in front of our shops like prostitutes and hurled abuse at us. I would have paid Wanshi Bopin anyway. What do I want to keep her money for?" asks Harishankar.

On March 30, the Sanghatana led a march in Gangagaon, this time against an elderly, grey-haired trader Laxminivas Dubey, who had been in this area for the last 24 years. The Warlis claimed that Dubey had cheated several of them on wages. Dubey was out, so the tribals filed complaints against him and Hasnath Tripathi, a trader from an adjoining village, at the Kasa police station.

The backlash was swift and vicious. Two days later Peter and two other Sanghatana workers were arrested by the police on what the First Information Report said were charges of dacoity, house breaking and endangering human life. The complainants were Laxminivas Dubey and Hasnath Tripathi. For 27 days the three accused were lodged at Dahanu jail and refused bail. Till todate, there has been no formal charge sheet, but the accused still have to report to Kasa police station every Sunday and Monday.

"Their case is still under investigation," PSI Gurule of Kasa police station. "We have no enmity with these people. I told Peter the last time he was here that he is doing good work, but he must use peaceful methods. There must be no breaking of the law."

Gurule is a dark, well-built man with a thick moustache. He leans confidently across his desk and says, "I shall give you proof that we are not on the side of the traders. You know the complainant in Peter's case—Dubey? We read a report in the newspaper that a Warli woman had complained to some social workers that she had been molested by him. On our own initiative we went to the village, and after finding reason to believe the woman, we charged Dubey under section 354, arrested him and produced him in court." Dubey's 22 year old son Sudhakar, also has a charge of molestation pending against him.

"The Warlis are like poisonous snakes," says Dubey, who has left Gangagaon and now sells withered and tired looking vegetables in the village of Thakarpada. "They bite the hands that feed them. They are drunks; brother fights brother; son fights father. How can anyone believe what they say?"

Local vested interests call the Sanghatana the watchdog of missionary interests in the area. But the Warlis deny this charge. The presence of Peter and Nicky as leading forces in the organisation created much of this controversy, especially because precisely at this time the MP O.P. Tyagi proposed the Freedom of Religion Bill in Parliament. Playing safe, Peter severed all his links with the Jesuits in Ashagadh and Talasari. This most affected Father Miranda who was now back at Ashagadh and eager to help in the new movement.

"I told Stanny (Miranda) very firmly that he was not to come anywhere near the Sanghatana," says Peter, fully aware of how hurt Father Miranda was at being kept out. "I respect him for his dedication and years of experience, but his presence would have complicated the issue further. The Warli youth were very clear about not having any of the missionaries around the Sanghatana."

About his own position, Peter says, "Neither staying with the Jesuits nor opting out will change my life. I don't perform any religious functions here and my commitment has been made. If I feel that my being a Jesuit is coming in the way of my involvement with the people. my choice is with the people. In fact, I'm seriously thinking of quitting the Jesuit order."

The elders in the Society of Jesus accuse Peter and Nicky of being communists, and the CPM accuses them of being missionaries. But Kaluram waves aside these accusations. To him religion does not matter. "I believed in the Christian faith, but after working in the Sanghatana and reading the works of Karl Marx, I have come to believe that religion has been used to suppress these people. It is truly the opium of the people," he says.

The arrest of the three Sanghatana workers kept the Warlis low for a while, but their growing awareness, and their successful struggle against the traders and the landlords had given them the confidence to tackle a far more basic problem—one which has threatened their entire existence. In December last year, the Maharashtra Government passed an order regularising encroachments on forest lands as of March 1978. Numerous landless tribals and backward classes throughout Maharashtra had clandestinely cleared tracts in the forest to cultivate, and over the years had been pressurising the government to recognise their ownership of these plots. But the new order was a severe blow to them because it excluded hundreds who had been forcibly evicted between 1969-72 and then again during the emergency from the land they had been cultivating. Among these, the only ones with any proof that they had encroached were those that the Forest Department had arrested, and in the process, provided with documentary evidence. The new order would deprive 95 per cent of the Warlis of their lands because they could not prove they had cultivated it before March 1978.

The Kashtakari Sanghatana joined hands with other organisations like the Bhoomi Sena of Palghar to press the government to move the date back to March 1960, and arrange for a committee of representatives of the people, the Forest Department and the government to scrutinise all claims to encroached land.

Tough Fight

THE WARLIS know that the fight is not going to be easy, for they are up against their most powerful opponent, the Forest Department. Since the British took over the forest in 1860, there has been hostility between the Forest Department and the Warlis. The tribals feel entitled to the produce of the forest, while the Forest Department jealously guards it.

"The tribals are depleting the forest by felling trees for firewood and smuggling out previous teak and aim to sell to private contractors," says C.S. Katke, Range Forest Officer. "If any more encroachments are regularised there will be no forest left," he says.

But the Warlis throw the same accusations back at the Forest Department. Kaluram says, "A Warli will never destroy a forest. He has a deep relationship with it and knows that ultimately his survival depends on it. It is the corrupt Forest Department in connivance with greedy timber contractors who are depleting our forests. Forest guards demand bribes from Warlis and abuse them if they catch them felling trees to build huts, but they always look the other way when contractors fell them by the dozens for money."

The Forest Department wants to replant the encroached areas, wherever possible, with teak to raise the commercial value of the forest. The current Working Plan for the Reserved Forest of Thane states: "The capital value of the Thane forests is Rs.697.50 per hectare, while that of a teak plantation is Rs.1,035 per hectare. Therefore the conversion of the present mixed type of forest into a teak forest will increase the value of the forest by Rs.337.50 per hectare."

The Warlis consider this thinking warped. "The encroached land is our only hope for survival, but to the Forest Department the forest is nothing more than a way of making more money," says Kaluram. In April, an incident involving a Warli girl and a forest guard brought the distrust between the tribals and the Forest Department to a new high.

Mahi Wanshe was asleep in her hut in the village of Haladpada. Her father was working a late night shift at the Dapchari dairy complex a few miles away, and her mother was out helping a neighbour through a particularly difficult delivery. The village was dark and silent, and inside the hut a soot blackened oil lamp cast a feeble glow. The hut's rough wooden door was closed but not bolted. There was a shuffling outside and then loud knocking. Mahi jerked awake, and saw an unfamiliar man outside the door. In the dim light, she could just make out a young face with a moustache twirled upwards. He wore a dull coloured T-shirt and a loosely tied lungi. Leaving the door open, he moved into the hut and demanded some liquor. Mahi guessed he was one of the forest guards who often roamed the village after dark knocking on the villagers' doors demanding their strong home-

SUNIL SHANBAG

Sleeping alone in her hut, 12-year-old Mahi Wanshi was molested by a forest guard.

made liquor. But there wasn't any in Mahi's hut and she told him so.

He moved closer till he could see her clearer. Though only twelve, Mahi looks older, with an attractive face and large, deep eyes. Impatiently the man said, "You are young. Stop behaving like an old woman and get me some daru."

Mahi replied with growing panic that she could not get him any, and tried to run past him out of the hut. He caught her by the shoulders, and as she struggled, he pulled her towards him and began running his hands all over her body. Mahi somehow broke free and ran into the night sobbing wildly.

When Mahi's mother found her, outside a neighbour's hut, all Mahi could say, between sobs, was, "I was scared. . . .I was so scared. . . ."

Her parents lodged a complaint at the police station but also demanded that the forest guards be paraded before the village where Mahi would publicly identify the culprit. The police refused the demand, and the case was dropped. The molester went free.

After two months of protest in Dahanu, Talasari, and the historic march to Bombay, the tribals have discovered that the Forest Department and the government are not as easy to fight as the traders. As a concession, the government moved the date to 1972, still depriving 30 per cent of the tribals of their land. The tribals have refused to accept this decision and the situation is in a deadlock.

The Warlis' new-found confidence has also struck fear among the landlords. "They are not cultivating farms of plantations more than 7 kms away from Dahanu, because of the hostility of the tribals," says Firoz Vakil. "When we went to cut grass at my fields near Charoti, they said that since they cultivated the land, the produce from it belonged to them. We literally had to flee that day." He adds philosophically, "It's all in the game, we have to take it as it comes."

In the 20-odd villages where the Sanghatana has its support, morale is high. The spirit of the movement can be seen in the Warlis' smiles as they greet each other on forest rials of fields with hand upraised, the fist clenched, and a shout of "Zindabad".

"There was a time when we would hide in fear at the approach of a stranger in city clothes," says Gopal.

But that was a long time ago. **THE END**

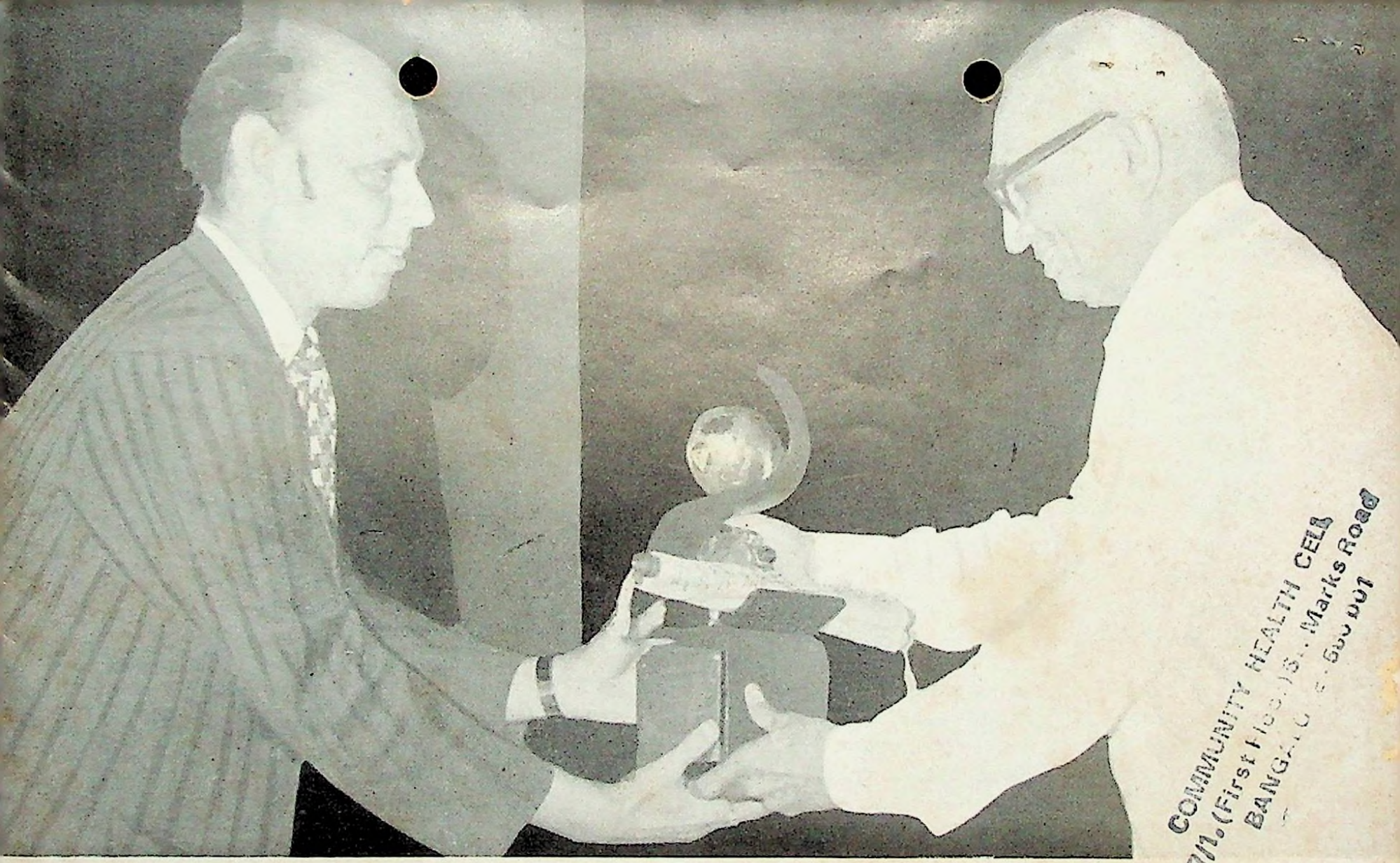
HANA -2

ACC medicare for villagers

SHAHABAD, June 8

The Associated Cement Companies have launched schemes that have brought comprehensive health care services to the villagers at Wadi and here. The diagnostic and dispensing facilities of ACC hospitals were thrown open weekly for the benefit of villagers residing within nine km. Radicus of the Wadi and local works, according to Dr. S. Subramanian, manager, rural development, ACC, Bombay.

The ACC Wadi village welfare centre arranged a nine-day free eye camp with free medical aid, food and hospitalisation and eminent eye surgeons from Gulbarga, provided free service and conducted operations. Hundreds of villagers utilised this opportunity.



ACC bags 'ASSOCHAM' award for rural work

Maharashtra - 24

For outstanding performance and achievements in the promotion of rural and agricultural activities

ACC BAGS 'ASSOCHAM' AWARD FOR RURAL WORK

Managing director Kamaljit Singh receives the 'ASSOCHAM' award from union finance minister H M Patel at Vigyan Bhavan, New Delhi June 27

THE Associated Cement Companies Ltd, (ACC) bagged the first national award for 1976, instituted this year by the Associated Chambers of Commerce and Industry of India (ASSOCHAM). The presentation was made by union finance minister H M Patel to ACC's managing director Kamaljit Singh, at the Chambers' annual general meeting at the Vigyan Bhavan, New Delhi Monday June 27.

ACC won the award for "outstanding performance and achievement in promoting rural and agricultural activities" — through its Village Welfare Scheme (VWS) — during the last three years. *Winning the ASSOCHAM award is a doubly significant achievement inasmuch as ACC's Village Welfare Scheme enters its Silver Jubilee year on October 2.*

PURPOSE OF AWARDS

The purpose of the awards is "to recognize and reward talent in India by honouring each year individuals, organizations etc, and thus offer encouragement for others to improve upon their performance.

ASSOCHAM, which is the oldest apex body of commerce and industry in the country, has instituted these awards in four specific areas — which are considered of "utmost critical importance to the Indian economy." These are :

(*a*) *Consumer protection and service through an appropriate distribution network;*

(*b*) *Import substitution through indigenous R and D;*

(*c*) *Promotion of rural and agricultural activities;*

(*d*) *Promotion of ancillary industries through self-employed entrepreneurs in small-scale sectors.*

The awards are open to all (individuals, companies, associations) engaged in the promotion and development of industry, trade, commerce, and/or any other activity conducive to the betterment of society — and particularly to serving the interest of the economy of India.

In deciding the award, these criteria will operate :

(*a*) *exceptional service and/or outstanding achievements in the four categories;*

(*b*) *it is not incumbent to give prizes under all the areas indicated, every year;*

(*c*) *no one may receive an award in the same field more than once in three years.*

A QUIET TRANSFORMATION

ACC's rural development programme, implemented through its Village Welfare Scheme, is the story

of a quiet transformation that is bringing new life into 225 Indian villages. It is the story of how private enterprise has encouraged villagers to work together to reduce poverty, dispel ignorance, and to improve their living conditions. It is a factual record of a social experiment that has benefited over three lakh people. Probably the first of its kind in southeast Asia.

Twenty-five years ago, ACC realized that every business enterprise is affected by the way of life of the people who live in the localities from where it draws its labour force. It saw that it could with advantage improve living conditions in those areas by helping the people to raise their agricultural production, economic status, intellectual level, sociological strata and physical standards. It sought to achieve these objectives by instilling in the villagers the need for self-help and self-reliance, without making substantial financial commitments. It endeavoured to create awareness among the people by encouraging them to undertake development programmes with their own resources: money, materials, and voluntary (*shramdan*) labour. ACC's VW staff provided the technical guidance and supervision. In the process it strived to inspire a sense of dignity and purpose in the villagers as a whole, and to inculcate a sense of good citizenship and responsible leadership.

VWS AT WORK

The first Village Welfare centre was opened at Balasinor quarries near ACC's Sevalia factory in Gujarat on October 2, 1952. Since then 11 more have been set up at Yerraguntla (Andhra Pradesh), Chaibasa and Khalari (Bihar), Dwarka and Sevalia (Gujarat), Shahabad and Wadi (Karnataka), Jamul and Kymore (Madhya Pradesh), Chanda (Maharashtra) and Lakheri (Rajasthan). Each centre has a nucleus staff comprising an agricultural supervisor, a village level worker, and a mason-cum-mistry. All of them technically qualified and trained in their appropriate fields.

Each centre carries out its own programme based on surveys and feasibility studies on the socio-economic development of the community. Problems and felt needs of the villagers are studied, after which the people are motivated towards the need for self-improvement. The VW team then works in close coordination with villagers in the execution of a development plan, solving problems which may crop up and fostering pride in achievement. Follow-up is continuous, and progress is stimulated.

Whatever the nature and scope of the project, the VW staff must tackle first the antiquated beliefs and prejudices spawned by a backward existence and shackled to an inbred apathy and lethargy. Which makes the preliminary surveys, feasibility studies, and motivation generated among the villagers the determining criteria of the measure of the success for any project.

THE ASSOCHAM AWARD

It all started with a national seminar organized by the Agricultural Finance Corporation, ASSOCHAM

(*Continued on page 4*)

and the department of rural development, ministry of agriculture, on the "Role of industrial and commercial houses in agricultural and rural development" at Ranchi August 21-22, 1976. Twenty-five industrial and commercial houses, twelve banks, seven fertilizer and pesticide firms and six government departments participated. ACC representatives included Dr S Subramanian, officer-in-charge VWS, from head office, Mr C R M Ayyar, general manager, Khalari, Mr R A Tripathi, centre-in-charge, Khalari, and Mr M R Kaddu, agricultural supervisor, Wadi.

Among several papers contributed, 14 were selected for presentation at the seminar. One of these on the "Role of ACC in rural development" by Dr Subramanian. The paper outlined ACC's integrated approach to rural development.

It was at this seminar that a decision was taken by ASSOCHAM to institute annual awards to industrial and commercial houses "who have done outstanding work in agricultural and rural development." As a follow-up, in March this year, ASSOCHAM — through press advertisements and circular-letters about the institution of the award — invited nomina-

Photo-montage depicting integrated rural development activities. Clockwise from top: Family welfare clinic for planned parenthood, recreation for *yuvak mandals*, a farmer with bumper maize crop, *pucca* concrete well, afforestation through tree-planting, schools to promote education, smokeless *chulah* for clean and hygienic cooking, teaching stitching – a *mahila mandal* activity; and at centre, spinning – an additional income

tions from industrial and commercial houses in India. While filing our nomination, the areas of our VWS work, and the achievements made during the last three years with supporting documents were sent to ASSOCHAM.

THE LAST THREE YEARS

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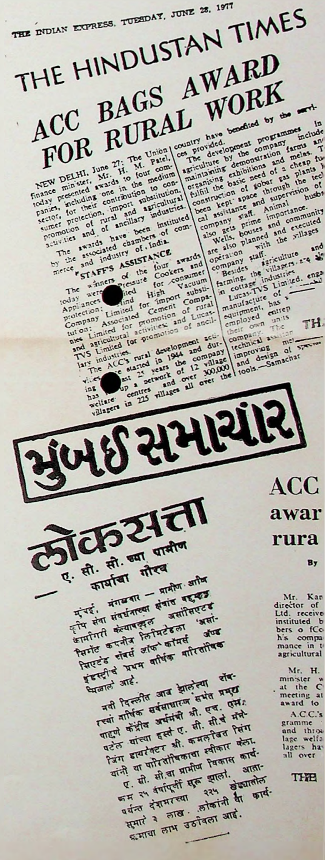

THE INDIAN EXPRESS, TUESDAY, JUNE 28, 1977

THE HINDUSTAN TIMES

ACC BAGS AWARD FOR RURAL WORK

NEW DELHI, June 27: The Union finance minister, Mr. H. M. Patel, today presented awards to four companies, including one in the medium sector, for their contribution to consumer protection, import substitution, promotion of rural and agricultural activities and of ancillary industries.

The awards have been instituted by the associated chambers of commerce and industry of India.

STAFF'S ASSISTANCE

The winners of the four awards today were Pressure Cookers and Appliances Limited for consumer protection; Hind High Vacuum Company Limited for import substitution; Associated Cement Companies Limited for promotion of rural and agricultural activities; and Lucas-TVS Limited for promotion of ancillary industries.

The ACC's rural development activities were started in 1944 and during the last 25 years the company has set up a network of 12 village welfare centres and over 300,000 villagers in 225 villages all over the country have benefited by the services provided.

The development programmes in agriculture by the company include maintaining demonstration farms and organising exhibitions and melas. To fulfil the basic need of a cheap fu construction of gobar gas plants h been kept apace through the tec cal assistance and supervision of company staff. Animal husb also gets prime importance.

Wells, houses and community are also planned and executed operation with the villages company staff.

Besides agriculture and farming, the villagers are als in cottage industries.

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મુંબઈ સમાચાર

लोकसत्ता

ए. सी. सी. च्या ग्रामीण कार्याचा गौरव

मुंबई, मंगळवार — ग्रामीण आणि कृषि सेवा संवर्धनाच्या क्षेत्रांत बहुमोल कामगिरी केल्याबद्दल असोसिएटेड सिमेंट कंपनीज लिमिटेडला 'असोसिएटेड चेंबर्स ऑफ कॉमर्स अॅण्ड इंडस्ट्री'चे प्रथम वार्षिक पारितोषिक मिळाले आहे.

नवी दिल्लीत आज झालेल्या चेंबरच्या वार्षिक सर्वसाधारण सभेत प्रमुख पाहुणे केंद्रीय अर्थमंत्री श्री. एच. एम. पटेल यांच्या हस्ते ए. सी. सी.चे मॅनेजिंग डायरेक्टर श्री. कमलजित सिंग यांनी या पारितोषिकाचा स्वीकार केला.

ए. सी. सी.चा ग्रामीण विकास कार्यक्रम २५ वर्षांपूर्वी सुरू झाला. आतापर्यंत देशभरच्या २२५ खेड्यातील सुमारे ३ लाख लोकांनी या कार्यक्रमाचा लाभ उठोवला आहे.

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THE LAST THREE YEARS

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Agriculture : Almost 782 hectares of new lands were reclaimed in villages through motivation and appropriate advisory services. Sixty-one agricultural demonstrations were laid out in marginal and small farmers' fields during *kharif* and *rabi* seasons for which inputs like seeds, fertilizers and pesticides were given free, and *field days* were organized and conducted in villages to show the field performance of crops demonstrated.

As a service to farmers, 211 soil and water samples from their fields were collected, analysed at the nearest laboratory, and recommendations were given. For timely plant protection measures, equipments were hired out on nominal charges to 545 farmers. Seven agricultural exhibitions/fairs were organized for improved high-yielding grain, fruits, vegetable and cash crops, and suitable incentives were given. Sixteen *gobar* gas plants were installed in villages for which technical know-how was provided. Technical advisory service in cropping, cul-

(Continued on page 7)

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The development programmes in agriculture by the company include maintaining demonstration farms and organising exhibitions and melas. To fulfil the basic need of a cheap fuel, construction of gobar gas plants has been kept apace through the technical assistance and supervision of the company staff. Animal husbandry also gets prime importance.

Wells, houses and community halls are also planned and executed in co-operation with the villages by the company staff.

Besides agriculture and poultry farming, the villagers are also trained in cottage industries.

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THE TIMES OF INDIA

४ नवभारत टाइम्स, बंबई, २९ जून, १९७७

नवभारत टाइम्स

THE STATESMAN

एसोसिएटेड सिमेंट कंपनीज लिमिटेड के मैनेजिंग डायरेक्टर श्री कमलजीत सिंह ... के लिए एसोसिएटेड चेंबर ... केंद्रीय वित्तमंत्री श्री एच. एम. पटेल से ... दिखायी दे रहे हैं.

FREE PRESS JOURNAL

Founder-Editor S. SADANAND

ACC bags rural works award

Mr. Kamaljit Singh, Managing Director of the Associated Cement Cos. Ltd. on Monday received the first annual award instituted by the Associated Chambers of Commerce and Industry for his Company's "outstanding performance in the promotion of rural and agricultural activities."

Finance Minister H. M. Patel who was the chief guest at the Chambers' Annual General Meeting in New Delhi, presented the award.

A.C.C. started its rural development programme 25 years ago and through a network of 12 village welfare centres over three lakh villagers have benefited in 225 villages all over India.

Assocham awards for four firms

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Besides agriculture and poultry farming, the villagers are also trained in cottage industries.

Lucas-TVs Ltd., engaged in the manufacture of automobile electrical equipment, has helped over 200 self-employed entrepreneurs to develop their own units and grow with the company. The company provides technical assistance in establishing and improving methods of manufacture and design of special fixtures and tools

लोकसत्ता; बुधबार, दि. २९-६-१९७७

એ.સી.સી.ને ગ્રામ્ય વિકાસ માટે પારિતોષિક

મુંબઈ, તા. ૨૭ : ગ્રામ્ય અને કૃષિ પ્રવૃત્તિઓ વિકસાવવા અને ... ધી એસોસીએટેડ સિમેન્ટ કં. લિ.ના મેનેજીંગ ડિરેક્ટર શ્રી કમલજીત સિંગને ધી એસોસીએટેડ ચેમ્બર ઓફ કોમર્સ એન્ડ ઈન્ડસ્ટ્રીઝ દ્વારા પારિતોષિક અર્પણ કરવામાં આવ્યું હતું ચેમ્બરની વાર્ષિક સભામાં મુખ્ય મહેમાન તરીકે કેન્દ્રના નાણાં પ્રધાન શ્રી એચ. એમ. પટેલ ...

આ કંપનીએ ગ્રામ્ય વિકાસ યોજના ૨૫ વર્ષ પહેલાં શરૂ કરી હતી અને ૧૨ ગ્રામ્ય વિકાસ કેન્દ્રો દ્વારા ભારતમાં ૨૨૫ ગામડાંઓના લગભગ ત્રણ લાખ ગ્રામ્યજનોને સેવાઓ પૂરી પાડી છે.

नवभारत टाइम्स, बंबई, २९ जून, १९७७

મુંબઈ સમાચાર

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ACC bags award for rural work

By A Staff Reporter

BOMBAY, June 27

Mr. Kamaljit Singh, managing director of Associated Cement Cos. Ltd. received the first annual award instituted by the Associated Chambers o fCommerce and Industry for his company's "outstanding performance in the promotion of rural and agricultural activities."

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THE ECONOMIC TIMES

ગ્રામ્ય વિકાસ કાર્ય માટે એ. સી. સી. ને મળેલું પહેલું ઈનામ

મુંબઈ, તા. ૨૮મી જુન.

એસોસીએટેડ સીમેન્ટ કંપની લી.ના મેનેજીંગ ડીરેક્ટર શ્રી કમલજીતસીંઘને કંપનીએ ગ્રામ્ય અને ખેતીવાડીના ક્ષેત્રે અનુપમ કામગીરી બજાવવા માટે એસોસીએટેડ ચેમ્બર્સ ઓફ કોમર્સ એન્ડ ઈન્ડસ્ટ્રી તરફથી પહેલું વાર્ષિક ઈનામ એનાયત કરવામાં આવ્યું હતું.

નવી દિલ્હી ખાતે ચેમ્બરની સોમવારે મળેલી વાર્ષિક સામાન્ય સભામાં કેન્દ્રના નાણાં પ્રધાન શ્રી એચ. એમ. પટેલના હસ્તે એ.સી.સી.ને પહેલું ઈનામ એનાયત કરવામાં આવ્યું હતું.

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FINANCIAL EXPRESS

INDIAN EXPRESS

Bombay : Tuesday June 28 1977

tural, manurial and plant protection were also given to 8,449 farmers.

Demonstrations using improved high-yielding crop varieties were conducted at our farm and shown to 2,711 cultivators. Seeds of these varieties, totalling 517 quintals, 929 quintals of fertilizers based on soil test reports, and 44 quintals and 93 litres of plant protection chemicals were supplied at cost to 11,066 farmers — either directly by us or channelized through appropriate agencies.

Animal husbandry: Eight cattle shows were organized to encourage villagers to rear better breeds of cattle and prizes were awarded. Technical advisory services — pertaining to artificial insemination, cross breeding, animal care, dairy, poultry and feed — were given to 6,948 villagers. To improve the quality of milch cows and buffaloes, 1,233 animals received artificial insemination through key village centres, and ten new breeds were introduced.

Construction: Cement was used in the planning, designing, estimating and supervisory work of 1,905 improved individual and community constructions in rural areas — valued at Rs 93.76 lakhs. Nearly 713.85 tonnes of ACC cement was made available at cost to 2,500 villagers for various constructional items. Concrete products like cattle troughs, irrigation channels and pipes, were made and supplied at cost to 1,217 villagers, as also 106.25 quintals of hoop iron to 733 villagers for agricultural and poultry development.

Education: Technical help for construction of 30 primary, middle and high school buildings was given in rural areas. Thirty-six incentive prizes to SSC students to promote education were given. Adult education classes in five villages were conducted.

Rural health: Fourteen diagnostic, five immunization and child welfare, six dental and eye clinics, and seven family welfare camps were staged in rural areas benefiting 501 villagers. Disinfection of community wells using bleaching powder was carried out in villages. Technical guidance and supervision for 386 items like soak pits, latrines, bathrooms, septic tanks, drains, roads etc, were provided. In coordination with health authorities immunization programmes were carried out for rural people, cattle and fowls, against various diseases.

Recreation: Eleven *mahila mandals* with a membership of 287 were organized in villages, and the activities of the *mandals* involved stitching of clothes, knitting, embroidery, *pappad*- and pickle-making, and kitchen gardening. Thirty-seven *yuvak mandals*, with a membership of 1,113, were organized in 35 villages to promote social and cultural activities, develop leadership qualities and involve them in the development programmes of the villages. Suitable competitions were organized among members of the *mandals*, and prizes were given to encourage such activities. In addition, sports clubs and libraries were organized in villages to provide recreation facilities.

Cottage industries: Nearly 935 villagers were motivated and helped in self-employment in cottage

industries like basket-making, bamboo work, weaving, rope-making, poultry, piggery, duckery, fishery, tusser-rearing, blacksmithy, carpentry, pottery, shoe-making, and in making bricks, tiles, and matches. In addition, 422 villagers were provided employment in old cement bag repair work. Besides the centres also involved villagers in drought-relief measures — such as deepening drinking water tanks, earthen bunds, construction of reservoirs etc.

Cooperative societies: Thirty-five service co-operative societies organized either with our help or by government agencies extended credit facilities amounting to Rs 8.22 lakhs to farmers. Seven milk cooperative societies supplied 25.09 lakh litres of milk to the Amul milk dairy. In addition to the above activities, the scheme also undertook mass tree-planting programmes in villages by motivating and giving technical guidance and supervision resulting in the establishment of 2,500 trees.

STUPENDOUS TASK

Rural development is a stupendous task which needs primarily establishment of a proper rapport between rural development agencies and government authorities at state/district/block/village levels, with a view to achieving the desired goal by collective participation and effective coordination as a team.

Towards this end, ACC's Village Welfare Scheme channelizes its energies and resources, as it enters its Silver Jubilee year. And, if the past is any indication, it is evident that its approach has not been merely philanthropical — or even a social obligation only. Rather it has demonstrated that an industry's approach to community development can be an integral part of its business activity. It is with these thoughts in mind that ACC looks forward to a long and fruitful partnership in India's community life.

ACC THE ASSOCIATED CEMENT COMPANIES LTD

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GRAMAYAN

RULES AND REGULATIONS

'GRAMAYAN'

1025 Sadashiv Peth, Pune 411 030

Rules and Regulations :

1. **Name :** The Name of the Association shall be 'Gramayan'.

2. **Registered Office :** The Registered Office of the Association shall be at 1025, Sadashiv Peth, Pune – 411 030.

3. **Aims and Objectives of the Association :**

We believe that the process of economic, social and cultural transformation of our society has necessarily to be started with the development of rural area with special emphasis on the economically weak and oppressed section. We further believe that the efforts of voluntary agencies and social workers are necessary along with the Govt. efforts to initiate and sustain this process and realise the objective of creating self-dependent, self-sustaining and modernised society. Gramayan primarily concerns itself with such voluntary efforts.

The aims and objectives of Gramayan are as follows :

(*a*) To undertake all activities which will promote and assist voluntary individual social workers and agencies working for rural development.

(*b*) To establish contacts with such voluntary workers and organise meetings and seminars

for exchange of ideas and experiences in rural development.

(*c*) To organise technical, financial and other assistance for the agencies and workers, working for rural development.

(*d*) To publish, propogate and disseminate information useful for rural development.

(*e*) To organise training camps of voluntary social workers.

(*f*) To organise youth camps and arrange study-tours and visits to projects etc.

(*g*) To organise exchanges of social workers working in different organisations.

(*h*) To conduct development projects in rural areas.

(*i*) To organise co-ordination between rural and urban voluntary organisations.

(*j*) To undertake any other activity consistent with the objectives mentioned above.

4. Accounting Year :

The accounting year of the Association shall be from 1st April to 31st March of the next year.

5. Classes of Membership :

(*A*) Founder Members—

The persons by virtue of their initial efforts to promote Gramayan are the Founder Members of this Association.

(*B*) Life Members—

Any person interested in the activities of Gramayan can become a Life Member by

paying a minimum amount of Rs. 250/- without any recurring payments.

(*C*) Honorary Members—

Any person interested in the activities of Gramayan can become an Honorary Member by paying a minimum fee of Rs. 51/-(Rupees Fifty-one only) and a retainer fee of Rs. 10/- (Rupees Ten only) per annum.

(*D*) Institutional Membership--

Voluntary Agencies in rural areas can become member of Gramayan by paying Rs. 101/- (Rupees One Hundred and One Only) and a retainer fee of Rs. 15/- (Rupees Fifteen only) per annum.

(*E*) Youth Membership—

This category shall include the persons who are interested in rural development and who have not completed twenty-eight years of age. The annual membership for this class shall be Rs. 5/- (Rupees Five only).

(*F*) Ordinary Members—

Anybody who is interested in activities of Gramayan can become an ordinary member by paying an annual fee of Rs. 10/- (Rupees Ten only).

6. Conditions of Membership :-

(a) An applicant for membership at classes (B), (C), (D), (E), (F) above shall be required to apply in the prescribed form and pay the prescribed fees along with the applications.

(B) The Founder Members shall scrutinise the application so received and take whatever decision they may deem fit. The decision shall be taken by simple majority of Founder Members present in a meeting specially called for this purpose. The decision of this meeting shall be final.

(C) Membership – A list of Members shall be maintained as provided under Rule 15 of the Societies Registration (Maharashtra) Rule 1971 in form of Schedule VI to the said Rules in respect of such members as are members within the meaning of Section 15 of the Societies Registration Act, 1860.

7. Executive Committee :–

I. There shall be an Executive Committee consisting of thirteen members elected as follows.

(a) Four elected by the Founder Members from amongst themselves.

(b) Two elected by the Life Members from amongst themselves.

(c) Two elected by the Honorary Members from amongst themselves.

(d) Two elected by the Voluntary Agencies from amongst themselves.

(e) Two elected by the Youth Members from amongst themselves.

(f) One elected by the Ordinary Members from amongst themselves.

II. To be the office bearer of any political party at any time during the period of the tenure of his office in this organisation shall be considered as a disqualification to be a member of the Executive Committee.

III. *(A)* The Executive Committee shall be elected by the members of all classes and the elections shall be by Postal Ballot. The election procedure shall be decided by the Executive Committee. The Executive Committee shall appoint the Election Officer to complete the procedure of elections and this election shall be comfirmed by the Annual General Body Meeting to be held within one month.

(*B*) The previous Executive body will function till the new body validly takes over. The new elected body shall take over immediately after the approval of the annual General Body that meets immediately after the elections.

(*C*) The election procedure for the elections of the Executive Committee shall be completed after every two years in the month of August.

(*D*) Those who are the valid members as on 30th of June of the year will be the voters qualified to vote for the election of the Executive Commitee for the next year. Any valid voter can contest the election for the membership of the Executive Committee.

(*E*) The Executive Committee thus elected shall elect from among themselves :

Chairman	. . .	One
Vice Chairman	. . .	One
Secretary	. . .	One
Joint Secretary	. . .	One
Treasurer	. . .	One

IV. Functions of the Executive Committee—

The Executive Committee shall meet at least once in three months. The Executive Committee shall be responsible for taking proper actions for carrying out the work of the ' Gramayan ' as per the objectives.

V. The Executive Committee meeting may be called with eight clear days notice for the purpose.

VI. Quorum–

The Quorum for Executive Committee meeting shall be 5 (to carry on its proceedings) and if the Quorum is not available during the first half hour the adjourned meeting will take place with the members present by the time of the first half hour and will be competent to transact all the business of that meeting.

8. Annual General Meeting :

(A) The Annual General Meeting of all the valid members shall be held as far as possible in the month of August or at any other suitable time as may be decided upon by the Executive

Committee but not later than the end of the October of the year.

(B) The Annual General Body Meeting may be called with ten clear days notice for the purpose.

(C) Quorum—

The quorum for the Annual or Specialf General Body Meeting shall be fifteen and i for the first half hour the Quorum is not available the meeting will carry the business with the members present by the time of the first half hour. This adjourned meeting shall be competent to transact all the business of the meeting.

(D) Following business shall be transacted in the Meeting—

(1) To elect the President and Vice President for the every two years from amongst the members present and voting.

(2) To consider and pass the annual report and accounts for the accounting year and Budget for the ensuing year.

(3) To appoint auditors and fix fees of the Auditors.

(4) To consider the programme for the coming year.

(5) To note and confirm the elections to the Executive Committee.

(6) To amend the constitution whenever necessary by a majority of two third members present and voting.

(7) To consider any other matter with the permission of the president.

9. Functions of Secretary :

(1) The Secretary is competent to call the meeting of the General Body (Annual or Special) or of the Executive Committee in consultation with the President (in case of General Body) or Chairman (in case of Executive Committee) of the respective bodies.

(2) The Secretary shall maintain all the necessary record and proceeding of ' Gramayan '.

10. Finance :

In addition to the collection of funds through the usual subscription from the members, the Association may collect finance through donation, grants from individuals, organizations and Governments. The Association may collect Finance through organization of appropriate social programmes for fund collection. The Association has a borrowing power.

Association is entitled to create, hold, purchase transfer, mortgage property including movable and immovable.

11. Amendments :

Amendments, alterations, additions, modification etc. in any one or more rules can only be made or amended as per provisions of Sec. 12 and 12-A of the S. R. Act 1860.

12. Dissolution :

The Society will be dissolved as per Section 13 and 14 of the Societies Registration Act 1860. ✻

PEOPLE SCIENCE MOVEMENT

A REPORT ON VIDNYAN JATRA FROM " LOK VIDNYAN SANGHATANA " (People Science Sanghatana)

ANJALI MONTEIRO

PRESENTED BY ULHAS GORE

It is the morning of 31 March, 1980, in Prakasha village, Shahada taluka, Dhulia District Maharashtra. On an open ground near the S.T. bus stand one can see a rectangle of make shift tents. Vidnyan Jatra '80', 'Lok Vidnyan Chalval' (People's science movement) the banners outside proclaim. There are groups of people standing around - school children, Adivasi landless labourers, rich peasants a motley crowd - all curious to enter and see this new kind of Jatra.

In the minds of people a jatra is something tremendously entertaining, an escape from everyday life into a world of colour and music where there is so much to do and see. The popularity of the jatra was one reason why the People's Science Movement (PSM) decided to experiment with this form. But with a different purpose in mind. The aim here was not to thrill, to mystify, to provide an escape. While entertaining people it should give them a fresh insight into the world around them, bring science within their reach and make them conscious of their own creative potential to change their reality.

This jatra has been organised by PSM with the cooperation of Shramik Sanghatana, a mass organisation of Adivasi landless labourers. The PSM wants to bring together the scientific intelligensia, dissatisfied with the existing situation on the one hand, and the masses who want change on the other.

The Shramik Sanghatana activists also feel the need for the kind of activity like PSM to widen people's horizons and help them in their struggle to change their lives. This jatra is an initial attempt to explore this possibility. How will people respond to this new experiment? To what extent will the jatra demonstrate a new way of looking at science and at their own day to-day lives? In the midst of the atmosphere of festivity, excitement and anticipation, these questions lurk just under the surface.

...2/-

A jatra on this scale involved a massive amount of preparatory work. For the past two months, volunteers of PSM in Bombay, Pune and Nanded had been planning various exhibits, visiting schools, hospitals and other institutions all over Maharashtra, getting them interested in the idea of Vidnyan Jatra and in lending their materials for it. In addition to this available material, a lot of fresh material had to be prepared if each area were to be presented interestingly and coherently for a rural audience. Scientists, doctors, engineers, teachers, students, artists and fulltime workers of PSM spent night after night making posters, models and writing rough commentaries to go with the exhibits. At last, about ten days before the jatra, most of the material was ready to be transported to Shahda. The collection, packing and transportation of this assorted and delicate baggage was not easy. However, slowly but surely volunteers with the materials began trickling into the Shramik Sanghatana office in Shahada, the only casualities being a few damaged models and the frayed nerves of our volunteers and S.T. bus conductors. The Shramik Sanghatana office took on the appearance of a bizarre workshop. In one corner, clouds and rainfall were being made by a group of enthusiastic volunteers, in another the intricacies of the human skeleton were laid bare, in the centre a jar of poisonous snakes reeking of formalin was being examined with great interest. The training programme had begun.

There were about 50 people - local adivasi youth and workers, activities of Shramik Sanghatana and PSM volunteers from Bombay, Pune, Belgaum, Nanded and Somnath. The bulk of volunteers were Adivasis, as by and large, the explanation of

...3/-

the various exhibits would be given by them in the local dialect, Bhilori. The training programme started off with the four areas for which materials had arrived. Health, Water, Astronomy and Natural History. Initially, wanted to train all the volunteers in all the areas, but time was short, so after a days general orientation and a survey of of all 4 areas, volunteers opted for the area on which they would like to work at the jatra. There followed two days of intensive discussions, demonstrations and experiments. The activists of PSM and the local volunteers threw themselves into the task of adapting the material, attempting to start from the existing conceptions of the local people and incorporating these in the manner of presentation (analogies from everyday life and a questioning of common misconceptions). It was a period of creativity, of learning for all those involved. For the local volunteers, an exposure to so much that was new and interesting, a fresh look at the world around them; for the PSM activists, an insight into what mass education involves the need for it to be interwoven so closely with the experiences of people.

While the training programme was going on at Shahada, activists of Shramik Sanghatana were struggling to set up the stall and infrastructure for the jatra. All the materials - bamboo, tarpaulin, pieces of cloth and sacking, were collected by the local volunteers from their own villages and brought to the jatra site. With great effort, the tents were exected, only to be blown away by the next morning. There was much concern and discussion - should the jatra be shifted to a less open and windy site? That would involve getting a fresh round of permissions from various local authorities, and there were only 2 days left for the jatra to begin. Finally, it was decided to alter the layout and to set up the tents somewhat differently. The new arrangement stood firm, much to our relief.

...4/-

But that was not the end of our problems. It was very difficult to work in the heat - the temperature was around 40 to 45.C. Summer was the one time when agricultural labours were relatively free. Arrangements had been made for electricity, but more offen than not there were interruptions in the supply which meant that many of our models could not work. Drinking water had to be fetched from long distances. Arrangements had to be made to feed 60 people for a week, tables and chairs to be borrowed. We needed a couple of dark rooms for projection of slides and some models, but it was very difficult to construct a dark room out of tarpaulin. All these problems have brought us to the conclusion that it is much more feasible to organise a jatra on some school premises, where, the infreastructural arrangements required are more readily available and at a time of the year when the weather is more conduc ive to work.

The jatra ground was finally ready. There was now just a day left for the jatra - time to transport the exhibits from Shahada to Pnakasha. The Nehru Science Centre van arrived from Bombay. In it were bundled all the delicate models and specimens. The rest was sent by tractor. The work of arranging the nine different stalls had to start immediately - posters to be put up, models to be assembled. The shortage of materials like bamboo, sacking and tables forced volunteers to use their resourcefulness to put up then stalls. Bedsheets, blankets, whatever was available was used to cover gaps in the tarpaulin and rig up partitions.

In the midst of all this bustle and confusion songs were being composed, about PSM, about the Jatra. The song written in Marathi for PSM starts something like this:

....5/-

'There is an eclipse of the sun of knowledge,
Awaken, people, awaken, open your eyes.....

At last, by noon of the 31 March, the Jatra begins. Let us make a round of the jatra, from the beginning to the end, see and hear something of what went on in each atall and of how people reacted to what the eyes saw.

Right at the entrace to the jatra is a section of assorted items, including some scientific toys. The commentator starts off with showing people a fresnel lens. It looks like an ordinary piece ofplastic with some grooves in it. Hold it up against someone's face and see how the face looks magnified and distorted. People laugh at this. Their leughter turns to amazement when they see how it can be used to concentrats the rays of the sun at a point and set anything on fire. Why does this happen? The volunteer tries to explain. However, with the exception of literate man and children, the others don't seem to comprehend or to be interested in the explanation. This is true of some of the other things shown harethe mobius strip, the balancing clown. The demonstrations arethoroughly enjoyable but it is very difficult to get people to understand the scientific principles underlying these. At most they can drawanalogies between what they see and some similar application of the principle in their daily lives. In some case, the examples used are inappropriate. Many of the things, like the fresnel lens, are very far removed from their experiences. This raises the question ofhow best to combine an enjoyable experience, a connection with daily life and an understanding of the underlying scientific principle. Should this not be kept more strictly in mind when selecting items for a jatra?

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People commonly believe that whatever is witnessed by the eyes is correct, the absolute truth. In the section on optical illusions they are shown examples of how their eyes can deceive them. A strip which appears emphatically bigger than another, suddenly appears smaller when positions are interchanged. Straight lines appear curved, lengths are misjudged, black and white sport keep appearing in clear areas, a picture points at you from all directions such coomon optical illusions startle people. They seem to enjoy the variety of ways in which their eyes can deceive them. Through startling demonstrations they become conscious of the importance of scientific methods of measurement.

The next stall is not as entartaining as the previous one, butit deals with an area which is of vital importance and interest to all kinds of people in the rural areas - the problem of water. This area is presented so as to bring out the social issues involved, along side with giving the necessary scientific information. The volunteer starts with explaining the water cycle with the help of some posters and a model. Then he talks about underground water. One model which holds people's attention demonstrates how the same ground water feeds the wells of untouchables as well as other castes. But misconceptions about divining water sources are missed out. The next few posters deal with deforestation. They take up question like why forests are necessary for rainfall. Why does deforestation take place? Who benefits from it, both in the past and today. From here we move on to irrigation - different types of irrigation, their relative costs and benefits, how irrigation facilities are distributed in Maharashtra, between various crops, between various sections of the rural population emphasizing the efficient use of water.

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Different types of people respond differently to this stall. Peasants with land show great interest in the section on irrigation, participate in the discussion. Landless labourers and women are less enthused. They respond very well and participate in the commentary on the water cycle when given by local activists in the local dialect. There are probably two reasons, for this. The manner of presentation does not pose sharply the problem of water as faced by the landless, labourer. Secondly, the stall is bare, few posters and fewer models. This stall would have been much more interesting if it used forms like slideshows, drama, and more models.

Then follows a poster exhibition on food adulteration obtained from the Maharashtra Government. The fact that all kinds of food can be adulterated is a new and interesting idea. People, particularly those from the middle class, want to see what they can do in their homes do detect adulteration. It would be helpful, one feels, if there were actual demonstrations of this. Some posters are irrelevant, they deal with foods like butter and saffron which most people are not familiar with.

Why ismeasurement important? What are the different things that can be measured and how? These questions are dealt with in the exhibition of models of the Nehru Science Centre. The models need electricity to work and most of the time there is no electricity. Most of the things presented here and the examples used are not familiar to a rural audience, with the exception of school children, This exhibition can be much more effective and interesting if it were to use as its starting point the conceptions of measurements that the people have. One thing that attracts people to this section is that they can handle the models. Children, particularly, go wild with the excitement of pressing different buttons and seeing all kinds of things happening.

...8/-

There are many modelsin the section on Astronomy. The first is a model of the earth - moon - sun system where people are shown how day and night, seasons, the phases of the moon and eclipess occur. Interesting discussions take place around this models. A group of middle class women tall the volunteer - even if what you say is true, we cannot give up the traditional practices that we observe during the solipse.' After this is a section on the siler eclipse - a set ofposters dealing with the misconceptions prevalent about the eclipse and a model which uses the principle of the pinhole camera to explain how the eclipse occurs and how it appeared on February 16th 1980 in different parts of the country. Unforutnately, this model can be demonstrated only when there is electricity. The biggest draw in this saction is the model of Skylab. People begin taking of the fears they felt when they knew Skylab was going to fall, ofhow some people sold all their goats and chickness and went on a last drinking binge. The remaining things in this section are a set of slides on the solar system and the talescope which everyone wants to handle. The local volunteers feel that people would have a lot of doubts and questions about this area which, though not expressed immediately would crop up later, for many of the ideas presented chahlenge their basic conceptions of the universe.

A solar cooker cooks rice and tea is boiled served on another cooker in the solar energy stall. When they see rice and tea being made on a solar cooker, some people find it difficult to believe that the source of power is the sun. There must be at least electicity inside, They feel. One question frequenetly asked - How can we use this cooker in the mons oons? Some of the cooker models, like the one made from an umbrella are cheap and simple, but there is one, made of mirrors, which is relatively difficult to make and expensive.

....9/-

The adivasi landless labourers tell the voluntiers. 'This cooker is for the landlords, Where do we have the money to make such a big one?' After considering people's reactions the volunteers feel that all the cookers demonstrated should have been made from local materials, and the costs of this, as against other forms of energy more rigorously worked out.

How are wild animals, birds and snakes our friends? How do they live, what are their habits? What is the difference between poisonous and nonpoisonous snakes? These are the main questions discussed in a section on "our friends". People enjoy looking at all the specimens of animals, birds and snakes. Given this interest, the subject could have been presented in a more integrated manner, bringing out the idea of an ecosystem. This stall is the scene of an unplanned but very practical demonstration of how some snakes are non-poisonous. One of the PSM activists is bitten when she is trying to catch an escaping snake. The snake seems to suffer greater damage than the lady, for it loses a number of its teeth and goes into sulky retirement for the rest of the jatra.

There are 3 section in the stall on Health-the human body, dissase and a section only for women on the repreductive system, pregnancy and childbirth. In the first section, a skeltcon, a model of the torso and specimen of soft organs are used by the voluentear to take people on a journey of their bodies. For some, it is a fascinating experience. An old Adivasi women says 'I never knew that there were so many things inside our bodies'. People are particulary struck by the soft organ specimens - a lung showing a tuberculosed cavity, a cirrhosed liver, worms clinging to the intestine. Some of them said that after this they would stop smoking and drinking.

... 10/-

The next section on diseases has a series of posters on TB, diarroea, scabies, malaria and leprosy. However, after having already spent 3 hours going from stall to stall, people are tired and not ready to assimilate new information unless presented very strikingly. So, on the spot, the voluntears improvise a play about a TB patient which is quite successful. The TB patients wife is played by a Adivasi volunteer with a flair for drama and a big moustache. The moustached wife keeps people in splits of laughter, at the same time ensuring a more objective response on their part to the drama. Enthused by the success of theirplay, by the last day the voluntears decide to put the same story into an action song in Bhilori and to get the audience to sing slong too.

For the women, the next section is the most interesting part of the whole jatra. The male and female reproductive system, menstruation, conception, pregnancy, childbirth, abortion and family planning are discussed in this section. A serious attempt is made to look into this area from a women's point of view, to get women to think and talk about their own conceptions of their body and its reproductive functions, to debunk certain myths about menstruation a pregnancy. The reactions of women are quite intense. Some feel that this area should not be discussed so openly. Others, particularly those active in mass struggles, feel that they have gained a lot from this section.

For many of them, it is the first time they are able to discuss such issues among a group of women without any sense of shame or embarassment.

The stall dealing with superstitions and godmen is by for the most popular one in the jatra. It has a series of posters dealing with questions of belief in God and blind faith in godmen from a scientific, rationa list point of view.

...11/-

However, more than the posters, it is the 'miracles' performed by a 'godmen' (one of our volunteers) that attracts people to this stall. They watch facinated as drops of water drip from his hair and blood from his fingertips, as he sets paper on fire without using matches, produces an egg from his empty hat, all the time invoking the gods. Some people spontaneously give him money. However, after he is challenged and debunked by a member of the audience(again one of our volunteers) they demand their money back.

On the last night of the jatra, a performance the same subject is put up. A woman is 'possessed and she is being taken in a procession down the village street to a "guru" who will drive away the avil Spirits. The "guru" is challenged by a rationalist and there is a confrontation between them. Crowds gather around to watch this situation. They take sides, Those who have been to the jatra and have seen the godmen there are quite sceptical of the powers of the guru to cure the woman. Of all the sections in the jatra, this one seems to have the most powerful impact, at least in terms of immediate changes in attitudes and perceptions.

Every night, after the jatra closes, there is a programme of science films from the Nehru Science Centre Films on the Universe, Astronomy, like under the sea, the history of the rocket, are seen with rapt attention by large audiences. The original English Commentary is replaced extempore by a live Marathi one, by a member of the Nehru Science Centre team, which tries to make the subject interesting and relevant for a rural audience.

All together, about 7000 people attended the jatra. What were people's immediate reactions? when questioned, they would say that it was very good, that they liked everything. Some

...12/-

people, particularly the women, seemed somewhat dazed by the amount of new information they had been exposed to, and unable to absorb it all. The thingsthey remembared and talked about after the jatra were those which were in some way linked to their experiences and presented in a visually striking manner - a model, a specimen, a drama.

Now that the jatra is over and people have gone back to their daily lives, the local volunteers are trying to find out the impact of this jatra on people's perceptions. Do they still remember and talk about the thingsthey saw? Has it in any way changed their misconceptions? Would they like future programmes of this type? A jatra like this can be only a starting point, a speark that kindless interest and facilitates and educational process, the/stirrings of a popular movement.

This jatra was PSM's first experience of mass education on such a scale. Mistakes were made, in the presentation of areas and selection of models, in the actual organisation of the jatra. At times there was inefficiency and wastage, our organisational weakness showed up. But all in all, it has been a tremendous learning experience. It has brought to us a realisation of our own potential, a realisation of the curiosity and desire, however hesistantly expressed, of common people to know more about the world around them and to make sense of it.

Rural Health Research Project, Alibag

The Godrej Experience

THE modern system of medicine in India was imported from Britain to cater to the British troops and civilian expatriates, and to a small favoured elite of the native population. During the three decades after Independence the medical profession, steeped in western teaching and practice, abrogated to themselves the total responsibility for the planning and operation of a health service, which was now meant to cater for the entire population of a predominantly rural country whose per capita income was one of the lowest in the world. Unable to comprehend this entirely new problem and not being trained in the skills of planning, organisation and management, their reaction was to expand the existing medical services, with slight modification. The result as we see it today is a vastly expanded service based on an increasingly sophisticated and personalised type of curative medicine suitable only for affluent western nations.

The differences in disease problems as well as the social, economic and cultural differences between India and the West, and even between the urban and rural areas of our own country have received scant attention. This is a major factor affecting almost all fields of development in this country. We have failed to appreciate the over-riding importance of the cultural factors in the delivery of our services and no amount of technological excellence, even if it is appropriate, can bridge this 'cultural gap'.

Coupled with the 'cultural and technological gap' is the almost total lack of involvement of the community itself in the programmes aimed at their health. As a result of the lack of participation, there is almost no feedback from the field; and peripheral workers are at liberty to work or not, since organisational supervision is at best sporadic.

The Rural Health Research Project was begun as an attempt to correct some of these imbalances and to evolve a health care model which would be efficient, cost-effective, replicable, and elicit the people's participation.

The Foundation for Research in Community Health was established because it was felt that the present system of health care was unsuited to the vast majority of people in this country, especially in the rural areas. We postulated the following hypotheses:

1. That health can be attained only if the people understand and participate in programmes aimed at improving their health. Health care cannot be delivered effectively by an extraneous service if the people themselves play a passive role.

2. That the present health service is predominantly illness-oriented, expensive, too sophisticated, personalised and consequently unsuited to the needs of most of our people.

3. That the medical profession, who have abrogated to themselves the responsibility of health care have failed to deliver the goods, for reasons of their training and orientation, which is westernised and curative-biased.

4. That efficient health care is neither expensive nor elaborate, provided it is based on prevention and early treatment; and axiomatically that even simple village people can be trained to undertake a considerable degree of health care in their own communities. In this approach, what is lost in depth is more than adequately made up by width of coverage.

5. That such village-level health-workers can function efficiently only within an appropriate supervisory and referral structure. In the present system, Government-trained male and female auxiliaries (such as Auxiliary Nurse Midwife's and Basic Health Worker/Multi-

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purpose Worker's) can be retrained not only as multi-purpose workers, but as supervisors for the Village Health Workers.

6. The nutrition, sanitation, and pure drinking water are essential components of health, as important as curative care.

7. The one of the most important means of improving the health status of the people is through health education, since change of attitudes is in the long run more effective than technology alone.

8. That a health-service structure based on the above hypotheses will necessitate a new type of functionary at the apex: i.e., at the Primary Health Centre level. The present day MBBS doctors, because of their curative-orientation and inability to work with and within a health team, cannot continue to head this new team without seriously retarding their efficiency and confusing their orientation.

The project began in December, 1973, with the recruitment of a senior community organiser, who undertook the task of interpreting to the people our aims, gaining their confidence, and support of the panchayat samiti and zila parishad officials. One of his major goals was to discourage conventional notions of welfare agencies being institutions of charity, and to promote the concept of development with participation. A few months later, a young dedicated MBBS doctor joined the project and helped to establish a preliminary medical service. In mid-1974, an administrative officer and a social scientist were recruited and the project began expanding to include actual training and fielding of VHW's, supported by a re-oriented health team. After the health programmes were functioning fairly efficiently we began a few socio-economic programmes, though in a limited way. We have now reached the consolidation phase, where greater stress will be given to the research component of our project.

Objectives

1. To enlist the involvement and participation of the people in their own health care. The village Health Worker, a village woman trained to do health work for her village, is the functional expression of this objective.

2. To develop a model rural health scheme in a typical underserviced area. This model should be practical, feasible, and replicable. This means proving that an efficient and successful health service can be manned and run primarily by para-medical and auxiliary personnel with only one or two doctors.

3. To evolve an efficient delivery system for both preventive and curative health care, with particular emphasis on the preventive approach.

Methodology

1. Baseline survey to gauge health problems, attitude, services available, services required, undertaken by the Tata Institute of Social Sciences, Bombay.

2. Introduction of persons trained in community work to explain the programme to local people, obtain financial and popular support for the village health-worker, and maintain relationships with panchayats to ensure community participation in the programme.

3. Establishment of primary health unit (PHU) to provide both out-patient and in-patient services.

4. Establishment of sub-centres to serve populations of 5000-7000 manned by an Auxiliary Nurse Midwife.

5. Training and fielding of ANM to fulfil a multi-purpose health worker role, supervise work of VHW's, and give technical services (e.g., ante-natal clinics and immunisation).

6. Training and fielding of VHW's (local women selected by the panchayats and trained by the project to do simple detection work, follow-up, health education and minor ailment treatment, at the ratio of one worker to 1000 population. The VHW is a part-time worker.

(Contd. on page 32.)

Maha-4 5.8.16

No. 1007

Comprehensive
Health
Maharashtra

Rural Health Research Project, North Alibag and Uran Talukas

1. Started in December 1973 in North Alibag; only recently in Uran Taluka.

2. Coverage. In North Alibag Taluka, a 30,000 population is covered; and in Uran Taluka 60,000. The population are mostly agriculturists, fisherfolk, and some tribals.

3. Activities. Initial:

   a. Concept of development with community participation promoted by a local community organizer.

   b. Medical services by a doctor who also trained VHWs

   c. Baseline survey by Tata Institute of Social Sciences, Bombay

   Ongoing:

   a. VHW's home visits (3 hours/day) for minor ailments; check under fives for immunization and nutritional statuses; check for ante-natal cases and for TB and Leprosy symptoms. Also impart health education.

   b. ANMs conduct ante-natal clinics and deliveries; give immunizations and refers cases needing further attention to PHC Unit doctor.

   c. PHC Unit apart from traditional curative role, the doctor is expected to go out into community, recognize health problems and initiate preventive measures using team. Outpatient clinics are conducted at remote, selected villages.

   d. In Uran Taluka, project is taking over the government PHC and re-training its staff as MPWs.

   e. Land reclamation for tribals.

   f. Recently, a comprehensive S-E survey conducted as requested by the two new development engineers as a first step to initiate a number of development projects.

/...

4. Personnel & Training.

a. VHWs (part-time, 25-50 years of age; education 2-7th standard, but two are illiterate (children maintain their records). Orientation is for 10 days, followed by regular inservice training. So far 30 VHWs (1 per 1,000 population) have been trained in North Alibag.

b. ANMs - Training needed for supervisory skills.

c. Doctors - Orientation needed to make him team-leader and preventive-minded.

5. Supervision & Records. VHW is given continuous on-the-job supervision. VHWs monthly report is signed by the doctor and a copy sent to the Panchayat.

6. Community and other Participation. VHW is chosen by Panchayat and Project personnel together. 30 rupees of her 50 rupees salary is paid by the Panchayat.

7. Sponsorship/Funds. The Foundation for Research in Community Health, a voluntary organization sponsors and funds the projects. The Foundation itself is funded by both Indian trustees and charitable organizations abroad. Government of Maharashtra's PHU and PHC budgets for the areas are also available.

9. Problems.

a. Villagers take time to gain confidence in VHWs.

b. VHW is more curative - rather than preventive-oriented (training needs reorientation).

c. Her work-pattern is unsystematic because of her previous work-style.

d. ANM has a tendency to look down upon the VHW.

e. Turnover in doctors; their inability to utilize their staff properly, and to delegate jobs to them. They are purely curative-oriented.

f. A tendency for the community to expect all welfare measures to come from the government.

g. Difference between their perception and the development worker's perception of needs.

10. Outlook. Propose to start development programmes including health, sanitation, water supply and land reclamation.

/...

No. 1007

11. Contact. Dr N.H. Antia, Trustee, The Foundation for Research in Community Health, 34-A, Abdul Gaffar Khan Road, Worli, Bombay.

12. Reference. Paper presented at the National Symposium, 1976.

Note: No information available for item 8.

Maha -15

No. 1008

Health
Maharashtra

Sone Guruji Vidya Prabodhini, Khiroda, Talqaon District. (also called Janata Shikshan Mandal).

1. Started in 1930

3. Activities.

a. Pre/basic school for children 5-7 years of age.
b. Primary basic training college, secondary school, panchayatiraj training centre, boarding house for students from backward classes, arts school and college of education.
c. dispensary for tribals;
d. youth club to promote CD through various activities.

12. Reference. John Sommer et al, Rural Development at the Grassroots, The Ford Foundation, New Delhi, Oct. 1974.

Note: No information available on items 2, 4, 5, 6, 7, 8, 9, 10 and 11.

THE DILEMMA OF PRIMARY HEALTH CARE

by

Dr. N.H. Antia, Director,
The Foundation for Research in Community Health,
84-A, R.G.Thadani Marg, Sea Face Corner, Worli, Bombay-400018.

When the Bhore Committee in 1946 first enunciated the concept of Primary Health Care it was with the simple moral imparative that the "tiller of the soil" must be the first concern of the health system.

This in fact, is the essence of the concept of primary health care; the basic, integral, non-negotiable health needs of the community, the foundation without which all other services are superfluous. This concept has become diluted to mean a second rate service which is foisted on the community while the privileged few receive their care from sophisticated medical institutions and highly trained personnel paid for by the nation.

It is clear that 80 percent or more of our people are beyond the pale of even such diluted services. Why is this so? Essentially there are two reasons behind this impasse which I shall cal "The Dilemma of Primary Health Care". On the one hand, the public Health system has expanded its net work over the last 30 years, yet like the spiders web, it is impressive to behold but lacks substance. On the other hand, the health services have not concerned themselves with the peoples' welfare nor do they possess administrative, technical or organizational competence. They have not only alienated themselves from the community but from each other as shown by the hierarchies and rivalries within themselves. Mandva

Our experience of two pilot health projects in Kulaba distt. of Maharashtra make us despair as to whether we can even fulfil our commitment of Health for All by 2000 AD if we proceed along the present lines. Yet some of our experiences in the field indicate that the problem is not insoluble. But the answer lies in a radically different if not a diametrically opposite approach to our existing methods of health care. The strengths and weaknesses of our people and of the existing health system will be discussed and an alternative strategy proposed.

Maharashtra - 10

B 17

INVOLVEMENT OF THE COMMUNITY IN HEALTH CARE PROGRAMMES

by

Dr. Sushila Nayar, President,
Kasturba Health Society, P.O. Sevagram, Wardah-442 102.

NGMS

Importance of community involvement for the success of primary health care to be highlighted in presentation.

I.C.M.R. project involving school teachers in delivery of primary health care and in stimulating community participation in their own health care to be discussed.

A few other experiments for the involvement of the community interest in their own health care also to be discussed.

Maha - 14

No 1006
Rural Devl.
Maharashtra

Maliwada (Deogiri), Aurangabad District, Maharashtra

1. Started in 1975

2. Coverage 2,300 population

3. Activities

   a. Programmes include: community health (preventive medicines, medical care, referral services, health education)

   b. Demonstration Home: (community kitchen, domestic management, family planning, nutrition education)

   c. Community Commons (vegetable gardens, animal farm)

   d. Community Education (Pre-school, infant care, functional education, in-field training)

   e. Service Training: (technical, rural management, trade skills)

   f. Rural Housing, village construction, community industry, community agriculture, irrigation

7. Sponsorship & Funds. This is a pilot (experimental) project undertaken by the Institute of Cultural Affairs (ICA) with the support of the state government. This is an effort of cooperation between the ICA and the local community. The basic aim of this project is to improve the quality of rural life and to strengthen the socio-economic condition of the rural poor. This experiment envisages an integrated approach towards rural agriculture, industry, education, health, sanitation, etc.

11. Contact. Mr Vinod Parekh/Mr W.J. Patterson

12. Reference. WIO, UNICEF Note

Note: No information available on items 4, 5, 6, 8, 9 & 10

Maha-10

No. 1005

Health
Maharashtra

Kasturba Health Society, Sewagram, Wardha 442102

1. Started in 1964

2. Coverage. Wardha C.D. block

3. Activities.

a. Kasturba Hospital, Sewagram, with 372 beds. The OPD is run by the Department of Social and Preventive Medicine (PSM) in collaboration with those of Medicine and Paediatrics.

b. Rural centres visited by hospital specialists, with weekly clinics at three and fortnightly/monthly ones at seven others.

c. An ayurvedic OPD functions twice weekly at the hospital (since 1975).

d. Yoga and Nature Cure Centre attempts to associate Yoga with modern medicine (since 1974).

e. Health Insurance Scheme with active involvement of the PSM department insures families for Rs 25 a year and also village units. Over 14,000 are currently insured.

f. Need-based, rural-oriented medical training.

g. Research projects including those on improved health delivery systems through school teachers and through basic health workers.

7. Sponsorship/Funds. The Mahatma Gandhi National Memorial Trust was the forerunner of the Society.

11. Contact. Dr Sushila Nayar, President of the Society.

12. Reference. Annural Report 1975-76 of the Society.

Note: No information available on items 4, 5, 6, 8, 9, and 10.

GAON KE KARIGAR AUR SCIENCE

MANAGEMENT DEVELOPMENT UNIT,
PLANNING DIVISION, CSIR, NEW DELHI
CENTRE OF SCIENCE FOR VILLAGES,
MAGANWADI, WARDHA

Gaon Ke Karigar

Aur

Science

Introduction

The last few years have witnessed a significant shift in the accent and focus of planning for social and economic development in India. This shift marks the predominance of developing the rural India—its economy, industries and the life style. By now it is clearly recognised that unless the rural sector is rendered economically and socially a strong and viable base, developmental planning, as hitherto, attempted will only be illusive.

Rural development then is the key to the problem of India's development. The rural economy in India revolves round agriculture and allied agro-based industries and a large number of handicrafts and trades, each with a technological base perhaps as ancient as rural India itself. Any plan of rural development cannot be blind to this technology base requiring some elemental innovational changes and modernisation to yield greater productivity and efficiency. Equally significant is the profile of the rural craftsman and artisan suffering from poverty and low levels of education and resources.

Science and technology in India, with its impressive record of achievements and breakthroughs in the past, has still to make its impact felt in the rural sectors. Scientific and Industrial Research has been largely urban-oriented. Several reasons for this apathy could be cited, of which not the least is the Scientist's attitude to rural development. He does not see in it challenges sufficient to motivate him as he perhaps sees in developing a process or product for a sophisticated industrial application. There is also the virtual communication gap between him and the rural artisan or the craftsman with the devastating result that neither knows the other. But properly viewed, the rural sector's technological problems should be able to generate tremendous challenge to the scientists, be it in the field of development of appropriate technologies or technology transfer or even technology management. Their problems, though perhaps simple like better tooling, improved materials reduction of drudgery, quality or products and wastage of resources, contain enormous scope for applied research calling for innovation and simplification.

To bridge the existing gap between the scientists and the rural sectors, a Workshop on "Gaon ke Karigar aur Science", (Village Artisans and Scientists) as first of a series of steps in this direction, is being organised at Wardha jointly under the auspices of the Management Development Unit, Planning Division, Council of Scientific and Industrial Research and the Centre of Science for Villages, Wardha. The Workshop has the following objectives:

Objectives of the Workshop

1. Serve as a first of several contacts to come, between artisans and scientists.
2. Enable a study of the problems faced by the village artisan.
3. Enable the Scientists to see the artisans at work in the village in a few selected trades.
4. On the basis of the above, pinpoint areas of action:—
   a) to make further in-depth study of definite problems;
   b) to suggest solutions for these through adoption of technologies already available, or
   c) draw up projects for finding technologies to solve these problems:

Participants

The participants in the Workshop would include scientists from the national laboratories engaged in applied research in the following areas and artisans|craftsmen aided by some activists|promoters in these areas:—

i) Food Processing Industries;
ii) Rural Civil Engineering;
iii) Carpentry & Blacksmithy;
iv) Leather Technology;
v) Village Pottery;
vi) Energy;
vii) Habitat and Environment,

Methodology:

The Methodology in the Workshop will be intense dialogues between the participants at work sites and in the workshop rooms. Status Report in each trade highlighting the problems and perspectives will be introduced for discussion.

The Venue

Maganwadi, WARDHA (Maharashtra).

Duration

7th to 11th September, 1978.

Workshop Directors :

Prof A Rahman,
Chief (Planning) and Head, Centre
of the Study of Science, Technology
& Development, CSIR,
NEW DELHI

Shri Devendra Kumar,
Director,
Centre of Science for Villages
Maganwadhi, WARDHA.

Workshop Coordinators :

Shri P. N. Chowdhury
Scientist & Coordinator
Management Development Unit,
Planning Division, CSIR,
NEW DELHI

Shri M. A. Sathianathan,
Centre of Science for Villages
Magan Sangrahalaya
WARDHA

Management Development Unit, Planning Division, CSIR, NEW DELHI.

The Planning Division in CSIR is engaged in intensive studies in the fields of Science Policy and Science-Management to generate well-defined concepts and techniques consistent with socio-economic goals of R&D in India. The Management Development Unit of the Division is devoted to instil a spirit of Scientific Management of R&D and develop the professional skills of R&D Managers. The programmes so far organised include Orientation programmes on Science and Society (for Central Schools Organisation) Workshops and Training Courses in specific aspects of R&D Managemen Administrative Management, Materials Management and Financial Management. The Unit also undertakes consultancy assignments in R&D Administration and Management.

Centre of Science for Villages, WARDHA.

Centre of Science for Villages, Magan Sangrahalaya, Wardha, founded by Mahatma Gandhi in 1937 work for the fulfilment of the Sutra' Science+Spirituality= Sarvodaya (Welfare of all). The Centre is involved in the constructive work of taking the new technology to villages. To facilitate this ambitious scheme the Centre collects scientific and technical information and dis-seminate it to village artisans and craftsmen after suitably processing it. The Centre also arranges the demonstration of various experiments which have been tested and found to be fruitful. It organises Workshops and Seminars on the subjects of vital interest to the rural development. One such seminar was conducted on Solar Energy. A scheme to improve sanitation to do away with manual scavanging of night soil was undertaken by the Centre at Wardha.

New Age Printing Press, Rani Jhansi Road, New Delhi-110055.

MAGAN SANGRAHALAYA

A NATIONAL MUSEUM OF RURAL TECHNIQUES

AN HISTORICAL PERSPECTIVE ON THE
OCCASION OF THE INAUGURATION OF
THE 40TH ANNIVERSARY ON 30-XII-1978
BY THE PRIME MINISTER SHRI MORARJI DESAI

Centre of Science for Villages,
Magan Sangrahalaya, Wardha, 442001

FORTY YEARS OF
MAGAN SANGRAHALAYA

THE NUCLEUS

Gandhiji, after his experience in three Continents—Asia, Europe and Africa—came to the conclusion that it is through low capital, labour-intensive, decentralized industries—that we could produce a self-reliant and regionally inter-dependent society as would bring a comparative and peaceful world into being. He did not stop at theorising but began putting these principles to which he was inspired by the traditions of his country and which were endorsed by Ruskin and Tolstoy. He put them into practice by starting the Phoenix Ashram (1904), Tolstoy Farm (1910), Sabarmati Ashram (1915), Maganwadi (1934) and Sevagram (1936).

The birth of an Institution

After his departure from Sabarmati in Ahmedabad in 1930 he settled at Maganwadi in Wardha in 1930. This Ashram he named after Maganlal Gandhi, his close associate who had been his right hand in all the earlier three Ashrams but who had suddenly died while working, at his behest, in Bihar in 1928. This fourth institution of Gandhiji was dedicated to the cause of rural industries. The All India Village Industries Association was founded by a resolution of the All India Congress Committee on 26th October 1934 with Mahatma Gandhi as its President and J.C. Kumarappa as its organiser and Secretary. The objectives of the A I V I A said:

> "The object of the Association shall be village reorganisation and reconstruction, including the revival, encouragement and improvement of village industries, and the moral and physical advancement of the villager of India. For the due fulfilment of its object, the Association shall raise funds to carry on research work, publish literature, organise propaganda, esta blish agencies, devise measures, for the improvement of village tools, and do everything that may be necessary for the furtherance of its object".

At Maganwadi a quandrngle of rural crafts was designed wih a gate which had a farmer and his wife as the two pillars and the bullocks were indicated on the upper arch. The village industries sections therein were divided into—

(a) food—paddy husking, cereal grinding, oil pressing palm-gur and bee keeping,

(b) cloth—spinning and weaving,

(c) shelter—pottery

(d) Other needs—soap making, paper making etc.

Along with this was a training centre called Gram Sevak Vidyalaya where rural social workers from al lover the country came to learn the rural techniques and Gandhian economics.

There was a laboratory at the centre of this industry-quadrangle (called Udyog Bhawan) which tried to help the various industry departments in their experimentations and innovations and it used eto keep in touch with other technical laboratories which hlped in this work. Gandhiji

had also made an advise committee of A I V I A which consisted of many scientists. The members were: Rabindra Nath Tagore, Sir J.B. Bose, Sir P.C. Ray, Sir C.V. Raman, Prof. San Higginbottom, Major-General Sir Robert McCarrison, Dr. Purshottam Patel, Shri V. Patel Dr. B.C. Roy, Dr. S. Subbarao, Dr. M.A. Ansari, Dr. Rajabally Dr. Jivraj Mehta, Sir G.D. Birla, Jamal Mohamed Sahib and Shri Ramdas Pantulu, and Sri S. Pochkhanawalla.

40 Years Back

On the 30th December 1938, Gandhiji inaugurated the Udyog Bhawan the museum of rural technology which was called Magan Sangrahalaya and made the following remarks on the occasion:

> "Critics may perhaps ask how these old implements and processes of production could usher in Swaraj? These Village Industries already existed in India before. Will they be able to hold their own against

the Western Industrial competition? Will these industries be able to attain that standard of perfection which the Western countries have attained on account of their latest scientific inventions and engineering feats? My reply is that these industries no doubt existed before, but people were not aware of their talent potentialities and awakened masses had never utilised them as the means of gaining independence. I admit that on account of the uniform pattern of current economics taught to our students in the colleges and accepted by the public at large resuscitation of Khadi and Village Industries may appear to them as reverting to medieval times. But I wish all of you enter this Udyog Bhawan leaving behind all these ideas ingrained in your brains. I wish you do not consider this Sangrahalaya as window-dressing for toys, but a living book of self-education".

This Sangrahalaya (Museum) stands on 2.3 acres of land in a building of 10,000 sq. ft. floor area and has two wings—one of Khadi showing various raw materials, tools and finished goods used in handspun and woven textile and the second displays similar facts about other village industries as were being practised in the Udyog Bhawan.

Gandhiji visited the museum last in 1944 after his release from the prison after the 'Quit India movement'. At that time he observed that *the museum should not be a static picture of the techniques which can improve the village life but should be a dynamic window on evolving techniques in rural industrialisation and thus be ever changing all the time. He wanted it to be a centre of education for the common man to impart information on new modes of production which could help the poor of the land.*

Changing patterns with time

This museum was a part of the All India Village-Industries Association in the 40's. When Sarva Seva Sangh was created as an amalgum of the Gandhian Institutions, the Magan Sangrahalaya came under charge in the 50's. Unfortunately for some reason or the other the museum remained inactive and closed during most part of the 60's. It was handed over to a successor institution created by the Sarva Sewa Sangh for the purpose, and is being looked after in the 70's by the Magan Sangrahalaya Samiti.

In a way the All India Village Industries Association which had emerged with the Serva Sewa Sangh, was disbanded after its various activities were handed over to the Khadi & Village Industries Commission, created by an Act of the Government of India. The Gramodyog

Bhawan in which various village industries were situated became part of the Central Research Laboratory of the KVIC and after some years, this section which was engaged in the production-cum-training-cum-research activities became a purely experimental and research department.

The Training School for the Gram Sevak Vidyalaya which attracted people from all the States of the country and helped to bring out a cadre of rural social workers with nation-wide perspective and deep commitments to Gandhian values also came to an end as the KVIC with its various training programmes in the respective village industries centres in the country expanded.

The integrated view of things which AIVIA and the Sarva Sewa Sangh had aimed at was lost in the process. Now therefore when we observe the 40th Anniversary of Maganwadi and Magan Sangrahalaya we are trying to see how we can resurrect and reconstruct the spirit in which the Institution was conceived by the father of the nation.

Presently the Museum attracts about 40,000 visitors every year. One of its attractions is the mud and bamboo hut in which Kumarappa used to live, (next to the Museum,) providing inspiration and guidance for austerity, simplicity and idealism.

The coming decade:

On 30.12.78 we enter the fifth decade of this Institution. This decade is a crucial one both from the point of view of India as well as the world. There has fortunately been a new awareness on the part of the scientists, technologists. economists, sociologists and experts in other disciplines all over the country towards Gandhian values. This is a result of the complexities and problems born due to centralization of industries over-consumption of natural resources and imbalances created in the ecological fields as well as of undue stresses on psychological, social and political systems. Magan Sangrahalaya, therefore, stands committed to try to find out solutions in these through its exhibits and other activities. The following plan therefore is being pieced together for the future.

(1) **More and Newer Village Industries:**

The villages of India require greater and more kinds of new occupations to keep the people occupied all the year round and produce wealth. For this along with agriculture, dairying and allied activities, the traditional food processes and other village industries have got to be brought back on sound foundation. However, this alone will not be able to bring village life to its fullness. We will have to hunt out many new kinds of industries and professions part-time, seasonal and whole time, which will arrest the erosion of talented people from villages to the cities and give succour to those who are partly or wholly unemployed. The inputs of science and technology should be invited to help in this regard and the number of industries which had so far been included in the schedule of village industries should increase and multiply with time. The museum, therefore, would try to have more panels to include new industries which are progressively made available for being taken to the villages This.

will require more space than what it has at present. It is therefore suggested that the building be extended vertically by having a second storey added as was envisaged in the original plan and horizontally by having two verandhas outside the two wings.

(2) Practical Demonstration

The time has come when we ought to have, Wardha, the place which Gandhiji had made his own, present a glimpse of his dreams in regard to village industries. For this purpose the various techniques and economic propositions for improvement of the poor in the villages as shown in the museum, ought to be available as practicaliy playing in the villages round about. We have, therefore selected 30-40 villages within the radius of 5 miles from the town where in each of them a different kind of industry or technique could be demonstrated. For example Paunar could be a place where self-sufficiency in Khadi of handspinning could be brought about The village Warud midway betwee Paunar and Sevagram

could be a place where sanitation programmes could be shown in broad relief. Another village could show hand-made paper made from agricultural fibrous wastes like p'antain stems. A village will show bio-gas plants covering the needs of large section of the community both for fuel and manure. The wind-mill, utilization of of non-edible oil seeds, self-sufficiency in food oils etc. are instances of the old and new techniques to be demonstrated in respective villages. The people who will come to Wardha will get information and statistics about the industry at the Magan Sangrahalaya proper and will be able to closely examine the practical feasibility of the industry they are interested in by going to the proper village where the same is being plied. The agencies which are sponsoring the respective techniques, like the KVIC, the various laboratories of the CSIR and other such bodies in India and other parts of the world are expected to come forward for giving financial assistance and technical guidance to instal their technique in a particular village. They will bear the nonrecurring expenses of installation as well as the recurring expenses of initial

running for the first three years by which time the techniques will form part of the village economy. This nursery of new rural technologies will be run on economic lines under the aegis of Magan Sangrahalaya and its Centre of Science for villages.

(3) Centre of Science for Villages :

This wing of the Magan Sangrahalaya has been created to find out from various sources where technology takes shape in the CSIR laboratories and other scientific and technoogical specialist bodies in the country as well as techniques that may be available with institutions working for appropriate technology for the Third World in the affluent countries. These techniques are to be studied from the point of view of their utility in the villages which fall under three categories - the small (500 population) the medium (5000) and the big (15,000 to 20,000). Experiments are to be done for the adoption of these techniques for the welfare of weaker sections of the villages by converting them into rural occupations or trades.

CSV will keep in touch with the Institutions working for the villages of the country and help them find out a linkage with the technological world. The new industries for the villages created by the efforts of the CSV could form the basis of added industries under the schedule of Khadi & Village Industries Commission and thus the CSV could be a path-finder for bringing new trades and occupations in our villages. It shall strive to find out economic means which will bridge the gulf between the poor and the rich in the villages and the rural and urban economies.

A multi-disciplinary team of scientists along with an infrastructure is to be created for CSV. It will also have adocumentation and dissemination cell. A beginning has been made by undertaking a set of projects concerning transference of new techniques in each village with the assistance of Department of Science and Technology,

Government of India. Various CSIR laboratories and the Planning wing of the CSIR is cooperating with the CSV in what could be said as the task of laying conduits between thresholds of the laboratories and the doors of mud-huts.

4. Training in New Techninqes :

Magan Sangrahalaya in conjunction with Sewagram Ashram Pratisthan and Maharogi Seva Samiti of wardha has already undertaken various training programmes for imparting knowledge and skills in new techniques. There has also been a workshop organised by the CSIR and the CSV at Sevagram on 'Gaon Ke Karigar Aur Science', from the 7th to 11th of September this year. where, it was discussed that a permanent training centre be evolved at Sevagram which could be used by the laboratories of the country for imparting training in new techniques of such rural applications to agencies which are working in the developmental field of rural India. The facility of training rural social workers in appropriate technology and a continuation of the Vidyalaya activity which was going on during Gandhiji's time is a felt need

Conclusion :

The next decade of the work of Magan Sangrahalaya which was started by Gandhiji forty years back could flower with a well integrated programme of development of the various facets of rural life. The above plan of making the Magan Sangrahalaya contribute to this is expected to be implemented with the help of various constructive work institutions in Wardha and the educational, social and governmental organisations engaged in the developmental work. In short, the decade of development of Magan Sangrahalaya which is being inaugurated by the Prime Minister, Shri Morarjibhai Desai on the occasion of the 40th anniversary of the museum envisages developing : (i) expansion of the museum building, (ii) extension of its activities in the villages around to exhibit in the field what is displayed in its windows, (iii) experimentation in new industries based on new techniques evolved in and technological laboratories, (iv) Education in new techniques to the voluntary bodies working in the villages.

CENTRE OF SCIENCE FOR VILLAGES

Magan Sangrahalaya,
Wardha - 442 001 (India)

To the Scientist of India

"I would like you to be men, who stand up before the world firm in your convictions. Let your zeal for the dumb millions be not stifled in the search for wealth. I tell you, you can devise a far greater wireless instrument which does not require external research but internal—and all research will be useless if it is not allied to internal research—which can link your hearts with those of the millions. Unless all the discoveries that you make have the welfare of the poor as the end in view, all your workshops will be really no better than Satan's workshops."

Gandhi
13.7.27

"What have we to do if we are to save India in this scientific age ? First, we have to resolve to decide all social problems by non-violent means. Secondly, science should be utilised for producing instruments that would serve man and not armaments that would kill. Thirdly, the prevailing situtions alone should decide whether science should be ordered to produce big machines or small ones. If we keep these axioms in mind, we can derive immense benefit from science. Let the growth of science be steady and unimpeded, this is my desire."

Vinoba Bhave

Printed at Maharashtra Printers, Wardha

STRATEGY:

In 1935, when Gandhi started the All India Village Industries Association (AIVIA), he had invited the top scientist of the day to be on its Advisory Committee, including Dr. Jagdish Chandra Bose, Sir C. V. Raman, Acharya Prafulla Chandra Ray and others. The experiments in village industries, he got initiated, were meant not only to improve the existing crafts in the rural areas, but also to introduce new techniques on the basis of the latest scientific knowledge, which would improve rural economy. True, efforts so far, fall far short of the expectations of Gandhi, of converting the rural habitat into an ideal setting which could afford man the fullest expression to his being in close communion with fellow human beings on one hand and Mother Nature on the other. Yet as we look to the results of rural developmental work done by voluntary agencies under Gandhi's inspiration for the past 50 years we find that there is great impact leading to the formation of 1500-2000 dedicated people in small groups working independently and are covering a large number of villages. The field of their activities is varied e.g. Khadi and Village industries, welfare of tribals, removal of untouchablity, basic education, agriculture and cow protection (Goseva), welfare of woman and children etc. This is no mean achivement in a country where, the gulf dividing urban elite and the village people is probably the widest, the communication between the elite class and the masses is weak; and the understanding of the realities of the villages by the decision makers is poor. Through these institutions, the application of science and technology, has to be done to meet the requirements of the poorest and to pursue the unfulfilled dream of Gandhi.

The Line of Approach:

The procedure to be adopted for this endeavour, will have to take the experience of the past into consideration and lay down the future plan of action, in which all the available resources are utilized in such way that the lower most will be benefited.

The following points could act as guidelines in this:

a) The kind of techiniques which we pick up for the villages should be such as to touch the life of the poorer sections of the people and bring hope to the oppressed.

b) These techniques should increase the avenues in rural employment, prevent the erosion of talents from the villages and enrich the life of the total community.

c) All institutions engaged in rural work, along with their usual activities, should undertake the responsibility of introducing some appropriate techniques in their field. This activity of transfer of technology for the beneifit of the poor will give ready results, and it will also bring confidence in the fulfillment of the long range plans that are being implemented by the institutions.

d) In introducing new methods, it is necessary that the technological institutions and the scientists assist the voluntary organisations doing constructive work, adding to the efficient functioning of the project, this will give an opportunity for interaction between the scientists and the social workers.

Mobilizing the Three Forces:

The need of the day is to bring about a forceful movement by establishing co-operation between the voluntary

organisatians, the scientific institutions and the industries, for the benefit of the less fortunate section of the society. India possesses the 3rd largest group of technologically trained people in the world. The result of their scientific work, however, is unable to bring ready benefits to the large number of people living in the villages, as it is mostly urban oriented leading to greater economic stratification of the society.

The other great force that can bring about rural development is that of the industries in the country. The industrial sector should not only look for increasing production, but also be responsible for the welfare of the weakest, and removal of disparity in the land.

The Next Step:

All these three forces, the agencies doing constructive work, the technological Institutions and the industries, require the establishment of bilateral links and need a source from where information about the applicable techniques can be obtained. To facilitate such co-ordination, the following are being undertaken by the CSV.

a) Documentation and Dissemination:

To collect and disseminate all such information from the technological institutions and other agencies in India and abroad which will fit in with the objective laid down above.

b) Demonstration and Experimentation:

Such of the experiments which have been tested and found to be fruitful, should be demonstrated at the centre.

c) Field Application:

In this work, the various voluntary agencies working in rural areas will be approached and through them the techniques which need to be perfected at the field level i. e, in the villages, will be tried before making them available to the nation. Each institution could choose a few techniques and experiment them in one or more key villages so that small villages around them can observe a particular technique that are being introduced, thereby motivate people to apply the observed technique.

d) Co-ordination in this endeavour.

The three kinds of institutions mentioned earlier could associate themselves in a co-ordinated movement. This general plan is expected to lead to a cohesion amongst various agencies involved in the constructive work, taking the new technology to villages. This is no doubt a very ambitious scheme and requires a tremendous amount of labour. But the optimism is that if once the people concerned, catch the idea, beneficial results will flow out of it in a short period of time and will spur the nation towards the required direction.

The Centre of Science for villages at Magan Sangrahalaya, the museum for rural industries founded by Mahatma Gandhi in 1937 at Maganwadi, Wardha, will work for the fulfilment of the Sutra (Formula) of—

Science + Spirituality = Sarvodaya (Welfare of all)

IMPLEMENTATION :

Centre of Science for villages (CSV) on the basis of the approach initiated above, which was approved and co-signed by Acharya Vinobo Bhave, took its first step in 1977.

CSV puts before you the work it has done for the past one year. Initially the centre started with the collection of relavent information regarding the application of scientific techniques to the rural areas, from various sources, and published it in a form of booklet. Then to post all the new techniques to those who are interested in rural development, CSV brings out a bulletin called "Science for Villages".

Along with gathering and dissemination of information, demonstration of the applicable techniques was taken up. A low cost house was constructed at the centre, with the technical know-how and assistance of the Building Research Institute, Roorkee. This model house is designed to suit the black cotton soils found in Wardha. In collaboration with Appropriate Technological Development Association, CSV organised a workshop on Solar Energy and collected some solar heaters and fabricated some cookers, which are being tested and exhibited.

CSV took up a scheme to improve sanitation and to do away with manual scavanging of night soil in some areas of Wardha, where large number of poor people live. The scheme is to provide simple lavatories and train masons in building aerobic manure tanks. The centre was instrumental in getting Wardha selected as one of the twenty districts in India, for a project of Integrated Rural Development. CSV emphasized the need for introduction of new employment avenues for the landless and planned two schemes, (i) hand made paper units from the fibres of banana stems, which go awaste, and (ii) improvement of work shops of the village black smiths, which is going to be taken up soon. In Varud village the mud walls of some of the houses were coated with Bitumen spray to gaurd them against erosion, ball bearing pulleys on wells were introduced, soakpits and lavatories were put up for

environmental cleanliness. A dozen villages were chosen around Seldoh, where late J. C. Kumarappa had worked, for the introduction of techniques with the association of Leprosy Relief Institution, Dattapur. Here intensive work is proposed to be taken up. For this CSV is making a project report on a prototype station for rural techniques and this will be submitted to the Department of Science and Technology, Government of India, for financial assistance.

Links have been established with the Central Research Laboratory of Khadi and Village Industries Commission, which is adjacent to CSV, since the director of the centre, has been asked to act as the Honorary Advisor of the laboratory. The Centre has an advisory board of eminent persons viz.—

M. S. Swaminathan, A Ramachandran, Y. Nayudamma, D. S. Kothari, C. Gopalan, J. P. Naik, Radhakrishna, Ramlal Parikh, C. V. S. Ratnam, N. M. Swani, M. S. Sodha, A. P. Verma and V G. Bhide.

Courtesy—Madhaya Pradesh Sevak Sangh.

Maha-16.

No. 1009
Health
Maharashtra

Sirur, Poona District, Maharashtra BJ Medical College

1. Started in 1939

2. Coverage Nearly 37,000 population (19 villages spread over 663 sq kms)

3. Activities

Rural Health Services and Training

4. Personnel & Training. Providesccomprehensive health care services, including referral. Undertakes training courses for medical interns, post-graduate students, B.Sc Nursing, Nurse Midwives and other special groups. Provides MCH services, nutrition/ health education/family planning, immunisation and control of communicable diseases; undertakes research and evaluation, environmental sanitation and water supply (construction of latrines, soak-pits, etc), and arranges health exhibitions.

11. Contact. Dr N.S. Deodhar, Joint Director*
Health Services
Poona

12. Reference. WHO, UNICEF Note

Note: No information available on items 5, 6, 7, 8, 9 & 10.

Maha -17

No. 1010

Rural Dev.
Maharashtra

Uruli Devachi

1. Started in 1973

3. Activities:

a) An integrated Socio-economic and educational programme for landless labourers including training in: 1) human management and family budget; 2) child care; 3) health hygiene and cleanliness; 4) retention of literacy; 5) co-operative activities and village administration; 6) trade union activities; and 7) leadership development. Craft training and family planning/population education is also given. Government of Maharashtra will help create some projects in the vicinity under the employment guarantee scheme.

b) A Balwadi which, however, has to be fully crystalised.

4. Personnel & Training. Government of Maharashtra collaborates on technical aspects such as training on specific subjects.

7. Sponsorship & Funds. Asian Trade Union College (ATUC); the International Cofederation of Free Trade Unions (ICFTU); ILO & UNFPA are co-sponsors.

11 Contacts. Mr Virendra Kabra, Director, ICFTU, ATUC, B-26 Green Part Extension; Mr Ashok Tupe, Working President Shajeevan Audhyogik Sahakari Society Ltd. Bade Satra Nali, Hadpsar, Poona - 28.

12. Reference: WHO, UNICEF

Note: No information available on items 2, 5, 6, 8, 9 and 10.

MAHAROGI SEVA SAMITI

The Maharogi Seva Samiti was established in 1936 at Dattapur 442001, District Wardha, Maharashtra for the purpose of the treatment and rehabilitation of leprosy patients. It was registered as a Society in 1939, and as a Trust in 1950.

Objectives :

Objectives of the Samiti as given in its Constitution are the following :-

1. To take all possible steps to combat leprosy;
2. To establish and conduct clinics, hospitals, leprosia, agro-industrial training centres, rehabilitation colonies, educational cen-tres, and other activities as may be found useful in the service of leprosy patients.
3. To run small scale industries, cottage and village industries including production and sale of khadi.

Programmes:

Leprosy control and treatment is the main programme which is conducted in the institution's out-door and indoor clinics. About 1,000 out-door and 650 indoor patients are under treatment. They are from 20 villages around the institution. Agriculture, livestock, village and cottage industries, education and training including family welfare programmes are organised for the patients.

Workers :

The institution has 38 fulltime paid workers and 3 voluntary workers.

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Top priority for farm sector in economic policy proposed

WARSI NAGAR, Nov 15 (UNI)

Union Minister of State for Agriculture Bhanu Pratap Singh has recommended the introduction of a new marketing system and provision of remunerative prices to farmers to help the agricultural sector flourish in the country.

In a note submitted for discussion at the national camp of the Janata Party, currently in session here, he expressed his distress at the party's failure in enshrine the principle of parity in determining agricultural prices, improving the terms of trade in favour of the rural sector and bringing down the prices of agricultural inputs.

As regards the terms of trade between the rural and urban sectors, he pointed out, there has been a further tilt against the rural sector during the past 18 months.

The eight point new marketing system recommended by Mr. Singh favours, among other things, treating the entire country as one food zone and removal of restrictions on the free movement of foodgrains.

It suggests a total ban on the imports of foodgrains and other farm products except to meet extreme scarcity conditions.

Having determined the "parity" price of important farm products, the Government should make it known that it would not intervene in the foodgrain market so long as the trade operated within 85 per cent and 115 per cent of the parity price which should respectively be called "support" and "intervention" prices.

The new marketing system envisaged that when the market price fell below the "support" price the government will make purchases directly from the farmers.

When the market price exceeds the "intervention" price, the Government will accept at the "parity price all stocks, which are in excess of the family needs of the stockist, be he a farmer or a trader."

To facilitate the take-over of stocks in case of need it should be enjoined upon all stockists, including agricultural producers, that any stock above 100 quintals should be kept only in licenced godowns. The conditions of licensing should, however, be very simple.

To prevent distress sales by small farmers, cooperative warehouses should be established at all "vikas kendras" where any farmer can deliver his produce and get paid promptly at the rate of support price.

Later on, the farmer should have the option to take out his stock and sell it in the open market at a higher price, after repaying the advance with interest and storage charges. However, if the open market prices rise above the "intervention" price, the Government will have the right to procure the stocks at the "parity" price.

To arrive at the "parity" price, 1970-71 should be treated as the base year, Mr. Singh says.

He further says that the new marketing system will have also to be protected from the vagaries of any unbalanced foreign trade.

In another paper, Mr. Singh speaks of India's potential to become one of the largest exporters of farm products, specially fruits and vegetables.

Participating in the discussion on the economic policy at the camp several members criticised the Government for its failure to evolve a viable policy to govern the prices of cash crops as a result of which farmers had been made to suffer recurring losses.

They regretted that the farmers growing sugarcane, cotton, jute and other cash crops had to bear losses in return for increased production.

If this trend continued, they apprehended, there might be sharp decline in the output of these commodities putting severe strains on the economy.

However, the running theme of the discussion was the indifference of the party Governments—both at the Centre and in States—to the promises pertaining to economic matters made in the election manifesto. In this context, they also referred to the infighting among top leaders.

Obviously, they wanted the party leaders to close their rank and take to the governances of public affairs a little bit more seriously lest the people got totally disillusioned and began to look for other political alternatives. In fact, the process had already begun, some of them feared.

The participants were concerned about the lack of coordination between the organisational and governmental wings. Some of them favoured an institutional arrangement to bring about better coordination between the two.

The Government's failure to communicate with the people on various crucial issues also came in for frequent criticism. Another subject of attack was the party's failure to strengthen its organisational network.

Cops attacked with handcuffs

JAMMU, Nov. 15 (UNI)

Seven policemen were injured when 20 undertrails being taken in a bus from the courts to the central jail, attacked them with handcuffs here today.

According to reports, they attacked the police after the head constable abused one of them.

All-India panel on job reservation for backwards

PATNA, Nov. 15 (UNI)

Union Minister of State for Home Dhanik Lal Mandal announced today that the Centre had constituted an all-India committee to go into the question of job reservation for backward classes.

Talking to reporters here Mr. Mandal said the five-member committee headed by B. P. Mandal, a Bihar Janata MP, would submit its report within a year. Other members of the committee are Mr. Diwan Mohan Lal (Rajasthan), Mr. R. R. Bhole, a retired judge of the Bombay High Court, and Mr. M. N Srinivas, a sociologist. One member was yet to be named.

Mr. Mandal said the terms of reference of the committee were to fix the criteria for defining socially and educationally backward classes, examine desirability of reservation in jobs and suggest steps for their advancement.

The committee would also examine whether or not adequate representation was given to these classes in Central and State Government jobs. It might reexamine the recommendations of Kaka Kalelkar commission "in the light of practical considerations which have stood in the way of acceptance of the recommendations by the Government."

Mr. Mandal said with the constitution of the committee the Central Government had fulfilled the promise of appointing three commissions or committees for the minorities, scheduled castes and tribes and backward classes.

The Minister parried most of the questions regarding the impact of the committee on the new job reservation scheme announced by the Bihar Government. He said the State Government was free to take its own decision.

Loco staff stir dislocates trains

VIJAYAWADA, Nov. 15

The running of goods and passenger services excepting fast and super fast trains, has been dislocated as a section of loco running staff went on sick leave or abstained from duty from 8 a.m. today.

"The action by the loco running

Madras division. It should be given up graciously to Madras division." the message said and assured that the Minister felt that the staff should not lose sympathy of the public and the authorities by dislocating the train services.

"Obviously whoever dislocates the services will lose sympathy."

Wild spe... absence o...

UJJAIN, Nov. 15

Mr. Charan Singh and his supporters were noticeably absent fro... the opening days proceedings of the Janata leaders' national can... here yesterday.

This is causing considerable speculation about Mr. Charan Singh and Mr. Raj Narain's future pla... with some delegates speculating th... the BLD group might re-unite... in terms of setting up its own part...

This is the first gathering ... Janata leaders from all-over t... country and the completion of t... audience at the camp was som... what different from that of t... participants at the inaugural ce... ention of the party held in De... last year soon after the election... There are fewer delegates repre... enting landowning peasants.

It is certain that Mr. Charan Singh and Mr. Raj Narain w... ers turn up during the next tw... days.

Considerable significance is bein...

Election v... save Indir...

Express News Service

PANAJI, Nov. 15

Prime Minister Morarji Des... declared here today that the Chik... magalur election result does n... make an iota of difference as fa... as the criminal proceedings again... Mrs. Indira Gandhi for the eme... gency excesses are concerned.

He told a news conference, "if murderer gets elected tomorro... that does not wipe out his crime... Mrs. Gandhi's election to the Lo... Sabha will "not save her" fro... the proceedings launched again... her, he asserted.

Asked about the infighting in h... own party, he agreed that indi... vidual party feelings continue... among the members of the consti... tuent parties which merged t... form the Janata Party, addin... that habits of many years tak... time to go.

He was confident that the diffe... rences within the party would b... ironed out with the coming organ... sational elections.

"Show me any democratic part... in the world where there are n... differences," he said.

The Prime Minister chided a cor... respondent, who tried to draw... parallel between Mr Sanjay Gandh... and Mr. Kanti Desai. He sai...

Maharashtra 19

The Dhulia movement

Hazards of organising the rural poor

by Renuka

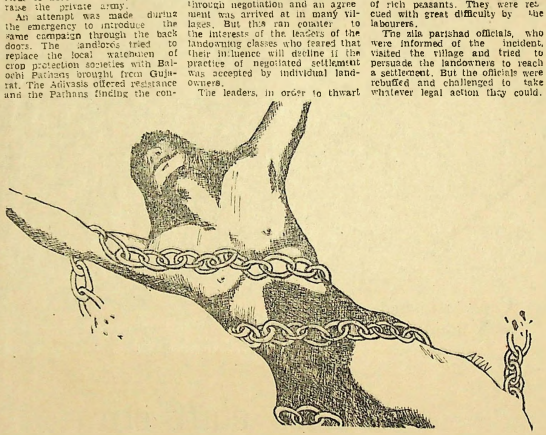
THE experience of the Shramik Sangathan, an organisation set up by some committed young men in 1972 to organise agricultural labour, mostly Adivasis in Dhulia district, Maharashtra, is an eloquent example of the difficulties and dangers that come in the way of those who seek to organise the rural poor.

The Shramik Sangathan was a continuation of the movement of landless labourers started in the region by Ambarsing Suramwanshi, a Bhujan singer of the area, who was born in the family of a sharecropper. In the beginning, these young men were drawn towards the area because of the reports of the distressing conditions of the Adivasis and worked under the banner of the Gram Swaraj Samiti with the help of Sarvodaya workers.

The task of arousing the Adivasis from their age old slumber was not simple, nor was it easy to instil in them the confidence that by organisation themselves they could bring about a change in their living conditions. The fight for economic emancipation had to be combined with the struggle for liberation against superstition, taboos and various addictions which sapped their energy and confidence.

The rich landlords in the area were quick to organise themselves so that they could effectively counter the efforts of these youth. A cooperative sugar factory which had been established on the plea of the development of Adivasis was converted into a centre for hatching conspiracies against the poor. It was here that a scheme for setting up a paramilitary organisation, ostensibly to safeguard the crops from theft but in reality to browbeat and intimidate the Adivasis and to discourage them from getting organised, was drawn up. The Shramik Sangathan got hold of the written document describing the whole scheme and its exposure forced the landlords to abandon their plans to raise the private army.

An attempt was made during the emergency to introduce the same campaign through the back doors. The landlords tried to replace the local watchmen of crop protection societies with Balochi Pathans brought from Gujarat. The Adivasis offered resistance and the Pathans finding the conditions too inconvenient withdrew.



During the past two years, the Shramik Sangathan has been trying to insure the implementation of the Minimum Wages Act. Though the law was passed in 1974, the agricultural labourers received only up to Rs 2 as daily wages. The Shramik Sangathan launched struggles for recovery of the arrears. A large number of rich landowners realising the legality and justification of the demand agreed to settle the issue through negotiation and an agreement was arrived at in many villages. But this ran counter to the interests of the leaders of the landowning classes who feared that their influence will decline if the practice of negotiated settlement was accepted by individual landowners.

The leaders, in order to thwart this trend, organised attacks on agricultural workers in the villages of Pari, Wardha and Mod. This happened when the labourers of Pari and Wardha took out a morcha to the gram panchayat office and requested the sarpanch to appoint landowners' committee for conducting negotiations for payment of arrears. Getting a negative response, the labourers gheraod the gram panchayat office. The leaders of the labourers were then suddenly attacked by a group of rich peasants. They were rescued with great difficulty by the labourers.

The nila parishad officials, who were informed of the incident, visited the village and tried to persuade the landowners to reach a settlement. But the officials were rebuffed and challenged to take whatever legal action they could.

The labourers had no recourse but to go on strike. They were able to sustain the strike for three weeks even though it meant serious hardships for them. The Shramik Sangathan succeeded in persuading the tehsildar to open public works which could give some employment to the workers. But before the work could begin, a mob of 200 to 300 landowners attacked the Adivasi basti, wounded 7 or 8 of them and destroyed whatever they could. Not a single earthenware was left unbroken.

This was the beginning of a reign of terror by the rich. Even though the Adivasis called off the strike on the specific assurance that they would not be victimised, the rich landowners went back on their word and attacked the workers' colony again.

A sadhu who had shown sympathy with the labourers and had been wounded a day earlier, was stabbed on both his shoulders and knees. The labourers fled the village. The Adivasis in the nearby villages were warned of dire consequences if they gave shelter to the Shramik Sangathan activists.

The police was helpless in the face of this terror campaign. Not a single case was filed against the landowner as the authorities were leaving enough legal and technical loopholes while registering the complaints.

Similar incidents occurred in village of Mode when the daily wage earners and contract labourers went on strike. The landowners refused to negotiate. But here the workers were able to sustain the battle for two and a half months with the help of other poor sections in the village. Finally, when the monsoon arrived, the rich landowners accepted defeat and agreed to negotiated settlement.

However, the more vicious among the landowners did not relish the idea of having been forced to come to negotiated settlement with agricultural labour who had remained submissive and meekly tolerated the indignities so far. In the first week of August they again mounted an attack on the Adivasi localities in Mode and Pargoda villages. The Adivasi labourers fought, leaving wounded on both sides. The fact that no harm was done to a single landowners' property and that the incident took place far away from the landowners' localities shows that the Adivasis acted purely in self-defence.

Violence initiated by the rich has been a constant threat which the Adivasis have had to face. In fact, the beginning of the effort to organise the rural poor in this region is linked with what is known as the Patalwadi incident. In the 1971 famine in Maharashtra, the Adivasis of Patalwadi village went to the biggest landlord of the village to ask for grain. The landlord gave them 4 kilo each but on their way back they were held by policemen accompanied by the landlord who accused them of having looted his granary. When the police refused to follow the landlord's dictates and open fire, the landlord and his men fired on the unarmed Adivasis, killing one and injuring many.

If landlord violence is one of the facets of the difficulties in rejuvenating the rural poor, the attitude of the bureaucracy and the police which in most cases is under the influence of the local vested interests, poses another serious problem.

In order to preserve the energy for the struggle against these forces the Shramik Sangathan had also to carry on campaigns for literacy against gambling, Mutka, and excessive drinking. Their experience has been that liberated them from the menacing influences of such habits, the Adivasis fight much better. A side effect of these campaigns has been that they have helped to mobilise women. For instance, it was the women who played a leading role in a movement for the destruction of illicit local breweries and the social boycott of their owners.

The experience of the Shramik Sangathan in organising the rural poor underlines the importance of a multi-pronged approach covering economic, social and cultural aspects of the life of agricultural labour and other rural poor. It also reveals the urgency for reorientation in the approach of the bureaucracy if the government's commitment to encourage and support the organisation of the rural poor is genuine.

COMPREHENSIVE RURAL HEALTH PROJECT, JAMKHED.

THE VILLAGE LEVEL WORKER.

The Comprehensive Rural Health Project is working in 30 villages in and around Jamkhed. The aim of the Project is to find a method of delivery of health care best suited to the needs and resources (financial and man power) of the rural area.

The rural economy is such that it cannot support the services of a physician in every village or groups of villages, neither are qualified physicians readily available in rural areas. Taking this into account the project's method of delivery of health care is to delegate the responsibility people lesser trained. Delegation of every task to the humblest member of the team capable of doing it satisfactorily is one of the ways of overcoming the problems of inadequate manpower and financial resources.

A Three tier system of delivery of health care has been organized. The physician is at the head of the health team. He delegates the responsibility of rendering primary health care to the nurse and paramedical worker (2^{nd} tier). The third tier in this system is the village level worker, who is a member of the community and comes in close contact with her peers and therefore she acts as the liaison between the community and the more educated nurse or paramedical worker.

COMMUNITY HEALTH CELL
471, (First Floor) St. Marks Road
BANGALORE-560 001

THE VILLAGE LEVEL WORKER.

A cultural gap was found to exist between the city-educated nurse/paramedical worker and the illiterate rural folk. Very often it was found that a patient after listening to the advice of a physician or nurse, would take and follow the advice of the illiterate watchman or sweeper of the health centre, rather than that of the physician. This is because he identifies himself with another illiterate person and feels closer to him rather than the educated sophisticated nurse. Taking this attitude into consideration it is was felt that the best way to get into the community and teach them to accept new methods, change attitudes was to enlist the help of women from within the community.

It was found that a nurse staying in a village for several months, could not convince a single woman to undergo tubectomy. On the other hand a woman (illiterate) from the same village, when convinced herself was able to get 75 women for tubectomy within the same period of time.

This experience led us to form the third tier of workers the village level workers.

The village community is asked to find women from their own community who would be interested in joining the health care team to help in rendering health care. Usually women with no household responsibilities volunteer for such work.

PREPARATION OF THE VILLAGE LEVEL WORKER.

The women come to the health centre at Jamkhed on Saturdays and Sundays. On these two days they are given regular classes on various health topics by the physicians, nurses and paramedical workers. The women are mostly illiterate and therefore most of the teaching is done with help of flash cards and charts.

The five priorities of the Project are stressed, and the village level workers role in of them is explained. Each class is begun with repetition of the previous weeks teaching and a discussion of the application of their knowledge in their work in the village.

The women are also taught the use of flash cards so that they can use them in their promotional work.

By this method we are in the process of training 8 workers and the experience with them is so far very encouraging.

One worker has been able to convince 200 women to take Antenatal care and bring over 100 women for tubectomy. She is also able to follow up patients with tuberculosis and leprosy and encourage them to take treatment regularly from the clinic.

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REPORT BY THE MEDICAL OFFICER, MALLUR, ABOUT HIS RECENT STUDY TOUR AT JAMKHED - MAHARASHTRA

I N T R O D U C T I O N

COMPREHENSIVE RURAL HEALTH PROJECT:

This project was started about 4 years back, by Dr. & Mrs Dr Arole, at Jamkhed which is 40 miles away from AHMADNAGAR in Maharashtra State. Both the doctors got their degree at Christian Medical College, Vellore After their graduation they decided to go to the village to serve in the rural areas. Dr. Arole hails from Maharashtra state and (Mrs) Dr Arole from Madras. They started their health project 4 years back in the village Jamkhed. They selected an old veterinary hospital for their clinic and worked there for 1 year. Then both of them went to U.S.A. to get training in COMMUNITY HEALTH, and came to India after 3 years to serve the people of rural area.

On their way back they made some arrangements to get financial aid from various Christian Missionaries.

When they came back to India, some local people donated some land about 2 miles away from the village, where the present hospital exists.

They are covering 30 villages in a radius of 20 miles comprising 40,000 population. People of these villages are very poor, backward and uncivilized. They did not have the rains for the last 4 years. We rarely come across green fields. All tanks and rivers are practically dry. Their main occupation in agriculture. Dairy farming is not at all seen in those villages. They cultivate wheat, jowhar and dhal, and very few cultivate rice and sugar cane.

AIMS OF THE PROJECT:

Here Dr. Arole has given top priorities for the following tasks to be undertaken in his project.

1) T.B. Control
2) Leprosy control
3) Antenatal care
4) Under Five care
5) Family Planning

Now they are also concentrating on the following activities:

1) Supply of Safe Drinking Water by providing tube wells.
2) Blindness control
3) To improve agriculture

S T A F F P A T T E R N

1 Director
1 Assistant Director
2 Integrated Doctors (BAMS) Residential doctors
1 Nursing Superintendent
2 Social Workers (who are graduates)
4 trained staff nurses (who posses requisite qualifications)
7 ANM's (who are trained in Government hospitals)
4 Leprosy Technicians
1 Laboratory Technician
1 X-ray Technician (trained at CRHP)
1 Chief Accountant
4 Clerks
1 Typist
1 Statistician
3 Ayahs
3 Ward boys
Compounding done by ANM's alternatively
5 Drivers
1 Mechanic
1 Watchman
2 Farming in-charge
2 Village level workers

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Apart from Directors and Doctors, there are 63 para-medical workers who are working in the project.

Vehicles: 2 land Rovers, 3 Tractors, 3 Jeeps, 1 Motor cycle

Annual Budget = Rs.520,000

Community Out reach	10%	Curative Service
Main centre OPD and in-patient	20%	
Family Planning	15%	Promotional, preventive and out reach programme
Under Five Care	13%	
TB Control	16%	
Leprosy Control	11%	
General Public Health	5%	
Administration	8%	

DAILY ACTIVITIES OF THE PROJECT

The Health Centre is situated about a mile from the village proper. Here curative and selective services are conducted. This centre has facilities for 30 in-patients. They have also provided quarters for the entire staff.

This health centre has a laboratory for investigations, an X-ray Unit, Operation theatre, wards and an office.

The daily work starts at 6.15 AM. Usually two teams go out on fields at 8.30 A.M. and are back by 12 Noon. Each team has the following staff:

1. A staff nurse
2. 3 ANMs
3. 2 Leprosy Technicians
4. 1 Social Worker
5. 1 Driver

Sometimes a doctor accompanies the team to supervise the work.

Usually they cover tow or three villages in the morning. Again two teams go out in the evening, except on Tuesdays, Saturdays and Sundays. They cover two or 3 villages too.

FOLLOWING WORKS ARE CARRIED OUT ON FIELDS:

1. House to House survey by an ANM
2. Leprosy survey by Leprosy technician
3. Health education by social worker
4. Antinatal clinic by staff nurse
5. Under five clinic by ANM
6. Family Planning clinic by ANM
7. Follow up cases by staff nurse
8. Feeding programme for under five by entire staff
9. Mobile clinic by staff and the rest of the members.
10. Blindness survey

Every Wednesday Dr. Arole goes out on field with the team and Mrs Dr Arole goes out on Fridays.

MEETING OF THE STAFF:

Every Tuesday between 4.00 PM and 6.00 PM, all members of the staff meet and discuss their problems. In this meeting Dr. Arole speaks on different topics on Health Education and demonstrates Flannel Graphs. Every Saturday between 4.00 & 6.00 Pm classes are conducted for village level workers (VLW's)

These village level workers are usually middle aged women, who are illiterates. There are about 21 VLW's working in the project. Each women is selected from the same village. She is paid Rs.40 per month - she is trained by Dr. Arole to work in this project. They are well trained to talk on health education using Flannel graphs to recognise Leprosy patients to motivate people for family planning practice, provide post natal care and care of under five children. VLW's are called to the health centre on every Saturday, and Sunday and they are trained there.

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Indeed VLW's contribution amounts to quite a lot. There is a very good plan drawn in this project.

On Sundays elective surgery is conducted. An anaesthetist from Ahamadnagar helps Dr and Mrs Arole in surgery. On alternative Sundays they get the services of an ophthalmic surgeon.

DETAILS OF THE TOP PRIORITIES

1. Antenatal Clinic

It is conducted every day by staff nurse or ANMs and VLWs. Usually the cases are identified by the VLWs, and they are examined by staff nurse. Investigations like Hb%, urine, and BP are carried out at the door. Each case is vaccinated against tetanus. One dose at 1st trimster is given. Also given is an ANC pack which contains, FS, MV, DC and Calcium tablets for a week. They also educate the people about antinatal work. Complicated cases are adviced to goto the health centre. For such cases transport facilities are provided by the project at free of cost. But most of the deliveries are conducted by an old lady of the family by crushing the cord with the help of a stone. They never allow outsiders to conduct deliveries. They say that if some body other than their own family member conducts the delivery, it brings evil to the family. It is very difficult to change this belief of the people.

Dr.Mrs Arole is now trying to give a sterile blade and a piece of sterile thread to such old ladies and motivate them to use them.

Their ultimate aim is to train the VLWs to conduct deliveries.

If there is a complicated delivery, the van is sent to pick up the case for management at the hospital. Post natal care is given by ANMs and the VLWs.

It is claimed that 60 to 70% of the women are getting antenatal care and in one village out of 37, 36 are under care.

There are about 800 cases registered so far from 30 villages. About 15% of this come to the hospital for deliveries. Reasons:

a) Illiteracy
b) Economical Problem

Fees for the investigations and deliveries done at the hospital is collected only from the people who are capable of paying.

Under five Clinic

Under five clinic is conducted daily by the team which goes out for field work.

It has three priorities a) Immunization, b) Feeding programme, c) curative services

Immunization

Initial survey is conducted by the team and the number of children to be vaccinated is noted. The immunization is carried out once a week. 'DERMOGET' is used for vaccination. Thus the jet is used for tripple antigen, BCG, tetanus toxoid and TAB.

All the vaccines are purchased.

Feeding Programme

All thechildren below 5 years are fed with multipurpose food. At present out of 30 villages, the children of 23 villages are being fed.

Food from OXFOM and CASA has been acquired . Feeding is carried out by the team with the help of local village people and VLWs. Local people are contacted and clear instructions are given to them. They must make all the provisions to prepare food in the village. All the utensils needed must be provided by them. The health centre provides them multipurpose food, jaggery and some oil. MV., FS, Calcium and some vegetables are added on to the multipurpose food. Dr. Arole says that for the time being they are getting food from foreign countries and eventually it must be self supportive, hence they have already started cultivating wheat, dhal and pea nuts.

He said, the following formula was good for the children.

1. Wheat 50 gms, Pea nuts 25 gms, Oil 10 gms, Jaggery 10 gms,
Dhal 25 gms . This gives half the calories required by a child i.e. 750 calories

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Curative Service:

This is done in fields and in the health centre also.

FAMILY PLANNING PROGRAMME

This programme is conducted mainly on the fields and health centre. This is done by the team on fields and doctors in the health centre.

The following methods are used:

1. Spacing, 2. Vasectomy, 3. Tubectomy, 4. Oral Contraseptive, 5. Condoms 6. Loop insertion.

It is claimed that out of the above 6 methods there is good response for Tubectomy, oral contraceptive, loop insertion, condems in order of choice. Vasectomy is not done as its posses a social problem.

In Jamked village itself 78 women are using the pill. The family planning work is being carried on very well by the village level workers. They motivate the people and are getting a good number of cases for tubectomy.

Doctor said that in 3 villages 100 percent of people who belong to eligible couple group are practising family planning.

TUBERCULOSIS CONTROLE PROGRAMME

Majority of the people are suffering from T.B. due to poverty. It is often diagnosed in the OPD itself.

Again the team plays an important role in picking up suspected cases of TB. The are brought to the health centre and the following investigations are carried out.

a. Screening - X-ray chest.
b. Sputum examination
c. Blood investigations

If they are positive the treatment is started.
Usually they put them on 1) Streptomycin
2) INH
3) PAS

Usually the streptomycin is given by the ANMs and follow up of cases is regularly carried out. Usually the VLWs take the drug from the health centre once a week to the patients.

The controle programme has 3 phases -

1. Irradication stage
2. Consolidation
3. Maintainence stage

They are in the irradication at the moment and they claim to reach the maintenance phase in the next three years. More importance is given to the old and children because they are prone to get the disease.

CONTROL OF HANSEN'S DISEASE

Many people are suffering from leprosy due to poverty. They are mainly concentrating on total integration. Hence they are admitting cases in general ward. Once gain team plays on important role in picking up cases. Patients are put on dapsone, B_1, B_6, B_1, MV, Calcium at the start of treatment.

They find it very difficulty to solve the social problems. It is said that once TE and leprosy is diagnosed and if by change the patients family comes to know about it, the patient is made an outcast.

Dr Arole narrated a small story. A girl who got married to a rich man's son came to the hospital for antenatal care. When the doctor was examining her he accidently noticed the patch and diagnosed leprosy after confirming his family. So the girl's parents were told about the disease and treatment was started without indicating this to her husband. But when she went to her husband's house to attend a function, one of her relatives identified this patch and they took her to the leprosorium at Ahmadnagar. The specialist there,

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diagnosed it as leprosy and told this to her father in law. So they took her home and locked her in a room. Food and water was withheld. After 6 days some one from the girl's father in law's house went to the girl's village and told her parents that the girl is not to be seen in the village for the last 6 days. So the girl's parents went to the village and brought her to Dr Arole. She was treated for leprosy but her husband divorced her.

Incidents of this nature are quite common, and this makes the doctor's work more difficul. The need for social change is obvious.

BLINDNESS CONTROL:

This work was started very recently in the month of January 1974. They are concentrating on finding out the blind case in the project area. The team is trained to recognise cataracts to find out conjunctriritis and other common ailments. They are also planning to have refractions for the school children.

DEVELOPMENT OF AGRICULTURE

They are trying their best to improve the agriculture in the project area. Special effort is being made in the waste lands that are not cultivated. Hence 3 tractors have been purchased for this purpose. People are motivated to use the tractors and an agreement is made that when they get the crop 1/3 of the crop must be given to hospital as a payment for the used of thd tractor. The share of the crop received is used for the feeding programme. In addition to this seeds are provided to the villagers. Advice is given regarding deepening of the wells.

Also provided are sheep goats cows, and chickens on loan to improve their economical standard.

PROVISION FOR SAFE DRINKING WATER:

This is achieved by providing tube wells. On an average they have to go about 100'deep to get water. Wells are as deep as 250', and water as tis depth needs no filteration as it is hardly contaminated.

To dig one well it costs them Rs.6,000/- and they are providing a well to every village that belongs to the project area, particularly the wells are dug in the Harijan area.

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No. 1003

Comprehensive
Health
Maharashtra

Comprehensive Rural Health Project, Jamkhed, District Ahmednagar

1. Started in late 1970.

2. Coverage 40,000 people receiving general care and care for special target groups (50% of population) within this community. The number of villages are 30.

3. Activities.

   a. Supplementary nutrition - one meal daily for deserving pre-school.

   b. Immunization of all pre-school children - 80% coverage.

   c. Provision of simple, minor illness care.

   d. Maternal services.

   e. Family Planning services including tubectomy and vasectomy.

   f. Control of chronic illness.

   g. Prevention of Blindness.

   h) General public health measures - safe drinking water through tubewells, mass health education, general agricultural development to increase food production and thus nutrition.

4. Personnel & Training.

   a. VHW - intensive training in health education, pre-school children care and maternal care.

   b. Nurse

   c. Health Centre Staff

   (a) is paid an honorarium of Rs 30/- per month for part-time work (b) and (c) are paid salaries comparable to the government scales.

   VHW's job also includes collection of vital statistics, assisting in surveys, and followup of chronically ill patients.

6. Community and other Participation. District level leaders are on the Advisory Committee for the projects.

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No. 1003

7. Sponsorship and Funds. A local society sponsors the project through the governing Advisory Committee. It also provides funds for the initial/capital expenditure. Recurring expenditure is paid for through fees for curative services.

8. Evaluation. Monitoring of reach of activities and periodic surveys.

9. Problems.

   a. Quality of curative services provided are affected by use of lesser trained personnel and delegation of responsibility to them (but outweighed by preventive care possible).

11. Contact. Dr R.S. Arole, Director of the Project.

12. Reference.

   a. Paper presented at the National Symposium 1976

   b. "Alternative Approaches to Meeting Basic Health Needs in Developing Countries. A joint UNICEF/ WHO study.

Note: No information available for items 5 and 10.

COMPREHENSIVE APPROACH TO PRIMARY HEALTH CARE IN RURAL AREAS

by

Dr. R.S. Arole, Director,
Comprehensive Rural Health Project, Jamkhed, Ahmednagar.

Comprehensive Rural Health Project at Jamkhed, Ahmednagar, was started in Jan. 1971 with the object of providing health care to the rural people as relevant to their needs and resources.

The objectives of the programme are: 1] to provide primary health care; 2] To reduce the infant mortality rate by fifty percent; 3] To provide adequate antenatal and maternal care; 4] to reduce the birth rate by at least 40 per 1000 to 30 per 1000; 5] to bring under control chronic illnesses such as leprosy and tuberculosis; and 6] to prevent blindness.

The project works in 70 villages covering a population of approx. 80,000 people. Since this is an expanding dynamic programme, the population served does not remain static. The various aspects and phases of the project involving the village health workers (VHW), their training and functions, the health team , the health centre, funding of the project, evaluation will be presented in detail.

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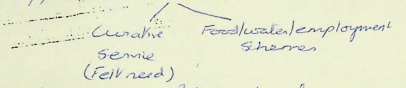
1. Health low priority in village

2. Medical care sought only in dire emergency

3 Highest priority - Food / water / Employment

4. Double pronged approach —



5. Community participation meaningful only if inequality/caste recognised and tackled
Farmers club of Landless labourers + small farm

6. Village workers selected by villagers - women, weekly training
Simple skills + Health Education

Folk Health Education + Peer pressure groups

7. Evaluation
- Vital Statistics - Mortality/Morbidity
- KAP - of farmers club members + Mahila mandal
- Sociological changes - how does one evaluate??

The following facts seem to emerge out of the Jamkhed experience to reach rural masses with health care: 1] Formulating clear-cut objectives and developing programmes accordingly; 2] Genuine grass root involvement of the people specially the weaker sections; 3] Availability of primary health worker closest to the people at all times; 4] Team approach by the health professionals with proper referral system; 5] Far greater emphasis on social responsibility of the professionals to the people rather than ordinary technical competence; 6] Willingness to learn from illiterate poor deprived masses and win their confidence; 7] Realization that health is not a priority of rural masses; 8] Health should be a part of total development; 9] Professionals must share knowledge with village people; 10] Professionals must be willing to trust the potential of ordinary illiterate people; 11] Health care providers and recipients of health services must be approximately on the same socio economic level. Greater the disparity in life styles lesser the communication.

Maha-3.

No. 1004

Health & Nut.
Maharashtra

Kasa Integrated Mother-Child Health-Nutrition Project
Dachanu Taluka, District Thana

1. Started in December 1974

2. Coverage: 63,000 tribal population in 70 villages, (10 of which all control villages).

3. Activities: This project is a projection of the "Domiciliary Treatment of Protein Calorie Malnutrition" project at Palghar, by the Institute of Child Health, Bombay.

a) Health Services, through home visits - preventive, curative including referral and promotive.

b) Nutritional assessment of under sixes and pregnant and lactating women. Food and vitamin supplements as needed. Local foods are processed as snacks for 2259 (24%) of the children.

c) Immunization: Mass campaigns, plus routine programmes.

d) Surveillance for "at risk" cases: The part-time social workers (PTSWs identify these cases and refer them to supervisory staff on latter's visits.

e) Family Planning includes sterilizations.

f) Health & Nutrition Education: using the home-retained growth charts of under-sixes and records of women.

g) Environmental Sanitation: chlorination of drinking water wells involving villagers in activities.

4. Personnel & Training Normal PHC staff structure, but some modifications in duties (more supervisory of PTSWs);

Special Programme Officer (Supervisor);

Part-teim Social Workers (PTSWs - 28 (each covering 2,000 population);

Selected by the communities not highly literate, (literacy rate in area is less than 10%) both male and female (some non-tribal), either residents or from neighbouring villages. These were trained for four weeks initially (both classroom and practical training).

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Recently, dais in the area are being trained.

CARE has provided some staff for training, research and supervision.

5. Supervision & Records: Master time-table for workers; a system of weekly (or more frequent) supervision all along the line.

6. Community & Other Participation: The PTSWs are from the community and selected by it.

7. Sponsorship / Funds: GOI, DSW for a year. Later GO Maharashtra and CARE - Maharashtra are the co-sponsors.

8. Evaluation: PTSW's monthly reports include status reports on all aspects; diaries, case study, type of information, tabulations are done at SCs and PHC.

9. Problems: Governmental administrative procedures leading to delays, other assignments like FP campaigns, non-posting of staff, dropouts among PTSWs, poor communication network, tribal poverty and resistance, were some of the key problems.

11. Contact: Dr P.M. Shah, Hony. Project Director, The Kasa MCHN Project; Prof. of Pediatrics, Institute of Child Health, Grant Medical College, Bombay.

12. Reference: Paper presented at the National Symposium, 1976.

Note: No information available on item 10.

Maharashtra - 3

CAHP - Code No. 201

PART-TIME VILLAGE LEVEL HEALTH WORKERS - "BAREFOOT DOCTORS" - AT HEALTH UNIT, PALGHAR*

A.R. Jannarkar* and P.M. Shah**

Newer techniques are being developed in all the walks of life to improve quality of life. 'Industrial Revelution' and 'Green Revelution' have been familiar words for sometime. However, disease and premature death are still prevelant in our country. The communicable diseases and malnutrition in the developing countries are the leading causes of the high mortality and morbidity rates which adversely affect their national economics. These preventable diseases beget poverty which in turn leads to poor health; a vicious cycle.

With the present knowledge, a number of killing communicable diseases can be controlled or eradicated. The management of protein calorie malnutrition is well documented. The problem is how to take this knowledge to a great number of suffering people in the community where it is difficult to reach them. It is anticipated that due to industrial growth and increased of agricultural output, the socio-economic conditions of a developing country would improve and subsequently general health would improve. But this is a very slow process. The developing countries can not afford to waste any more time. They should have results as soon as possible which means employing the simplest possible way. They have to work within all the limitations of men, money and material. Only revelutionary methods and approach can bring about the "Health Revelution".

Health Care in developing countries:-

The concept of revelution in health planning has been accepted by number of developing countries. In Sudan, Uganda, Zambia, Nigeria, Malavi and many other countries, the health auxiliaries provide health and medical care through clinics and hospitals. There are places where Medical Assistants are managing 200-bed hospitals and perform major surgical operations.[1] It is remarkable that Sudan can reach so many people with health services, even though simple in form, due to auxiliary and paramedical personnel particularly Medical Assistants.

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** Professor of Paediatrics, Institute of Child Health, JJ Group of Hospitals and Grant Medical College, Bombay. Paediatrician, Rural Health Unit, Palghar.

* Based on the W.H.O. aided project 'Domiciliary management of Malnutrition'. Chief Investigator: Dr. P.M. Shah.

In Malavi a few professional health people provide a high standard of care for a relatively few patients while Medical Assistants provide more basic care for the rest.

The common medical needs are not so complex. The lower level medical worker must only be able to recognise threats to health that are visible and easy to identify (like diarrhoea, upper respiratory infections, malnutrition, infectious diseases and infestations) or problems that are less threatening and more of a personal concern like headache, constipation, earache, cuts, etc. Auxiliary workers could easily look after these problems while the professionals could function as leaders, consultants and managers.

The Chinese claim a solution to this problem of community health, with maximum benefits from minimum cost in their system of "Barefoot doctors".[5] They have placed a priority on preventive programmes. The key to this system of 'Barefoot doctors' is the proper management of available manpower. From the beginning of the revolution, they rejected the traditional Doctor-patient relationship which a poor country cannot afford as it requires a large investment for training facilities and hospital-based services. As an alternative they emphasized the provision of health care for the greatest number of people at the least cost.

The 'Barefoot foctors' appeared at the beginning of 'Cultural Revelution' with rural health oriented programmes. The local people are trained in both modern and traditional health care methods during slack agricultural season. Depending on the availability of various health personnel and acceptance by the people, the Barefoot doctors work as links between the community and the available medical manpower. Their duties include treatment of minor ailments, organisation of health education programmes, 'Patriotic' health campaigns and general sanitation work in their locality. The work of these 'Doctors' is supposed by all those who are engaged in the preventive programmes. Recently, to increase manpower in this army of health, traditional doctors, oriented in modern medical methods, have been incoporated. These concepts are of basic importance since more manpower can be trained for a given health budget.[5]

Medical manpower in India:-

In India the problem of medical manpower is grave, even though the doctor to population ratio is 1 to 5112. In fact 80% of the doctors are not available for the 81% of the population who reside in villages.[4] As a result there is an acute scarcity of skilled medical men in the rural areas. The nurse to doctor ratio is 1:2 which is

well below the recommendation of 3:1. Moreover, wherever a doctor who could provide health care is available in rural area, he is busy providing medical relief to 100,000 population at the Primary Health Centre and has limited time and interest in preventive and promotional health care. The shortage of doctors is going to prevail for years to come as training of doctors is long and costly. All the developing countries are experiencing this problem which explains why the concept of ~~m~~ maximum utilization of health auxiliaries is getting more and more popular.

In India various national health programmes are managed quite successfully through health and auxiliaries. The National Malaria Eradication Programme, the Leprosy Programme and the Small-pox Eradication Programme are examples. These auxiliaries are not substitutes for the doctors; their role is supplementary.

AN EXPERIMENT WITH VILLAGE-LEVEL HEALTH WORKERS AT HEALTH UNIT, PALGHAR:

The long-term planning for health has to be basic, comprehensive, preventive and promotive. As the first step to sow the seeds of health is in early childhood, the most vulnerable period, a W.H.O. aided project on "Domiciliary Management of Malnutrition" and Integrated health care for the children under five years was started at Health Unit, Palghar, Dist. Thana, Maharashtra, in August, 1972.[6] Here is an attempt to solve the local health problems in the village itself with the help of local persons. The project is designed to promote the health of the children under five years of age at the village level by continuous, co-ordinated, community care. Under this project part-time, village-level health workers, who are the key persons in the project, have been appointed. It is obvious that the problem of health and nutrition can not be solved by medical and more highly-trained para-medical personnel alone. Moreover, there is a need to cover a wider rural area with limited health personnel at a Primary Health Centre. Hence, the part-time, village-level health workers are appointed in this project to link the community with the existing health services.

Part-time, village-level Health Workers;

While appointing these part-time health workers an emphasis was given on selecting a local, middle-aged, mother with educational qualification up to 7th standard. However, four out of five workers have the educational qualifications of only the 4th or 5th standard.

Care was taken to select a person with leadership qualities. Those women are familiar to the local people and know the regional language, customs, attitudes and beliefs in child rearing. These women are culturally acceptable to the community and specially to the local women folks with whom they communicate in a better and more effective way than the outsiders. They have an easy access to the kitchen where the traditional policy of nutrition and child rearing of the family are determined by the dominating grandmother or mother-in-law. The part-time health worker takes part in their 'Kitchen meetings' and at times participates in "gossiping". The worker is trained in such a way that she introduces her advice in a culturally acceptable way. The nutrition advice is practical, scientific and feasible for the local conditions and meagre budgets.

The whole idea of appointing these health workers is to improve the services according to the values of society. Health planning must be pragmatic and take socio-economic aspects into consideration.

Five such part-time health workers have been appointed in this project. They are paid Rs. 60.00 per month and they work for four hours a day. Each worker looks after a total population of 2500 to 3000 in tow to four close-by k villages or hamlets. On an average these villages are at a distance of 4 to 6 kilometers from a sub-centre, head quarters of a nursing auxiliary, and are within 2 kilometers from the residence of the part-time workers.

TRAINING OF THE WORKERS:-

These workers were given training for three weeks, two weeks in the class-room and clinics and one week in the field. The training programmes were so arranged that they had practical experience of taking weights, recording them on weight charts, measuring heights and giving health and nutrition education to the mothers and others. They were trained in ascertaining birth dates by using local events calender. They were introduced to personal hygience, common communicable and nutritional diseases of children, immunisation, growth and development, and family planning. Emphasis was given to learning by active participation. Cases of common diseases were demonstrated to them in the clinics.

The class room training was followed by field training in the village of Umroli where a model programme has been going on for the last one and a half year. They were given assignments and the results were discussed with all the participants.

Job description and responsibilities of the part-time Workers:-

Every child under five years of age in twenty villages/hamlets has been covered by the five workers. The children needing special care and whose parents cannot come to the clinics because they are daily wage earners are treated at home. Other children are seen at the clinics. The job assignments, including the responsibility of the part-time health workers, are as mentioned below.

1. Census: to enlist the population at risk as well as all the household members by age and sex. The houses are given numbers. Census figures are brought upto-date every six months.

2. Sequential weighing and selection of beneficiaries for nutrition programme: Serial weighing is a practical and reliable measure of growth in children under five years. Birth date is decided according to a local events calender and then the weights are recorded periodically, according to age and nutritional status, (figs. 1&2) on weight charts[3] printed in Marathi. The Salter's weighing scale model No. 235 T with spring and dial is being used as it is an accurate, handy and economical. Figures on the dial of the weighing scale are given in the local language. The workers talk to the mothers about the weight curves on the charts, their importance in health and disease, and the necessity of timely regular recording of weights. They give advice on feeding to all the mothers at the clinics or in the homes.

   The part-time assistants are trained to determine the degree of malnutrition with the help of the weight curves within a fraction of a degree by means of a simple plastic folder over-lay designed for the project (fig.III). Accordingly, beneficiaries are classified for nutrition supplements and/or nutrition education. [7]

3. Listing 'Special Care' children: In each village they maintain a list of children who require 'Special Care'. The list indicates specifically which children must be seen by the nurse and/or the doctor when they visit the village. The status of these children is followed at the clinic and by home visits. The local community is made aware of the condition of these children. The following are the reasons for "Special Care".[3]

1. Those whose weight is below 60% of the reference standard;
2. Those who have difficulties in breast feeding and are put on bottle feeding before six months;
3. Those who fail to gain 0.5 kg. a month in the first trimester or 0.25 kg. a month during the second trimester of life,
4. Those Pre-term or low-birth weight babies weighing less than 1.5 kg;
5. Twin babies;
6. Those whose mothers have a history of death of more than two offsprings between the age of one and twelve months;
7. Those with severe or acute infections like measles or whooping cough,
8. Death of one of the parents;
9. Those whose birth order is fourth or beyond;
10. Sterilisation of one of the parents and
11. Only child after a long married life.

4. Under-Fives' Clinics: The part-time workers conduct clinics for children under five years of age. Every alternate clinic is attended by the nursing auxiliary, while the doctor visits once a month. The frequency of the clinics varies from thrice a week to once a fortnight depending on the population of a village. In each clinic 15-20 scheduled children are brought. They are held at places given by the local community. The clinic's timings are altered to suit the working mothers.

5. Immunisation: They organise immunisation campaigns for the children, by identifying and collecting the children due for immunisations when the nurse visits their village. They assist the nursing auxiliaries in carrying out immunisations.

6. Domiciliary visits: They go to visit the home of defaultors and also of the children listed as "Special Care". On an average each worker has to visit 7 to 8 homes per day. While on home visits they weigh the children (Fig.IV) and talk to mothers about feeding and other health matters. When simple drugs are prescribed for a child, these workers assist by delivering the medicine, continuing the therapy, and reporting the progress.

7. Nutrition Education: They advise on protective foods, their consumption, preparation and cost. They identify the dominant figure in the family and have a dialogue on health and nutrition education.

8. Health education: They give advice on personal hygiene and talk on growth and development, common diseases of childhood and their prevention.

9. Vital statistics: They collect information on births, deaths and migration.

10. Deworming and special programmes: They help in periodic deworming of the children in the villages where there is heavy infestation.

11. Planning of families: They advise on family planning to the eligible couples and motivate them at the time when all the children under five years in their family are progressing well on weight charts and

12. Referrals: They promptly refer the sick children to the nurse or to the doctor at the headquarters.

Community Participation:

These workers coordinate their activities in each village with the village health committee, nursing auxiliaries and other personnels of the health department. They have developed effective rapport with the women folks and the villagers. They bridge the 'Cultural gap' between the modern health services and the community at large.

Organisation:

To give an idea of the role of part-time health workers in the project, the organisation of the project is depicted in a chart (Fig,V). The project is designed to fit the existing health services and to help in extending and strengthening the health services. Two to three workers are under guidance of a nursing auxiliary and enable her to cover effectively a population of about 10,000.

Records:

After one year's experience in a pilot study at village Umroli, near Palghar, a new system of records has been devised. The records are minimised for nursing personnel. The same are simplified by means of weight charts and assignment identification and planning cards. The workers with the help of nursing auxiliary, fill-up the built-in evaluation tables,

Evaluation:

A project is divided into three main sudy groups (i) service oriented, (ii) Research oriented, and (iii) Evaluation oriented. The results of evaluation of nutritional status and immunisation status

can easily be read at a glance from the tables given below (Tables I & II).[2,7] The tables are completed by the nurse midwifes. This data is furnished every month which provides a built-in evaluation of the on-going programme.

It will be noticed from the above description that these health sorkers do not treat sick but prevent sickness and promote positive health. There is no danger of creatings 'quacks' as they are not going to cure diseases. Their purpose is to extend health care and preventive and promotional health.

Health Revelution: The Indian Way:

The aim of the project is to create a balanced programme for the future, both at the family and the community levels.[8] Here lies the difference between Indian Way of health care and the Chinese way. At Palghar, the mothers are oriented to help mothers and to extend compassionate care. India is a poor country like many other developing countries and can not afford the rising cost of therapy/ Revolutionary and economic ways of delivering health care need to be worked out. The responsibility of providing health care to all, even in the remotest village or hamlet must be met; in the existing conditions of limited medical manpower and finances, the system similar to Chinese 'Barefoot doctors', our part-time health workers, is the practical and necessary approach to health care. These 'Workers' can help to bringing about the "Health Revelution".

The experiment with the part-time health workers is only nine months old and it has shown promising results with reference to nutrition, growth, morbidity and even mortality. It has been observed that 75 to 80% of the deaths in the under fives' were from the group of these needing special care. The workers have already gained fairly good confidence of the community. It should be possible to extend their f field of activites, in the future to the pregnant and lactating mothers.

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T A B L E - II

EVALUATION OF IMMUNIZATIONAL STATUS

Village Month:

Age Group	Total No. of Children	Immunisation given									Remarks
		Smallpox	BCG	D.P.T.							
				I	II	Booster	I	II	III	Booster	

N,B. :- Please write in brackets the percentage of children immunisation.

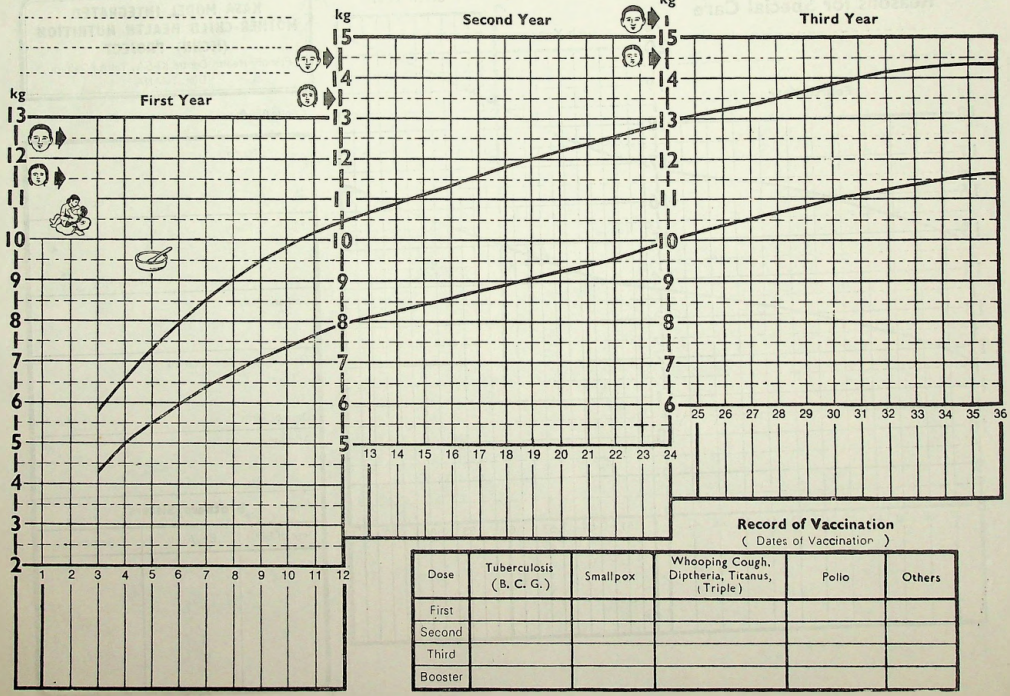
Further copies can be obtained from:
Coordinating Agency for Health Planning,
C-45, South Extension, Part II,
New Delhi-110049.

MH-3

Reasons for Special Care

Reasons for Special Care

Reasons for Special Care

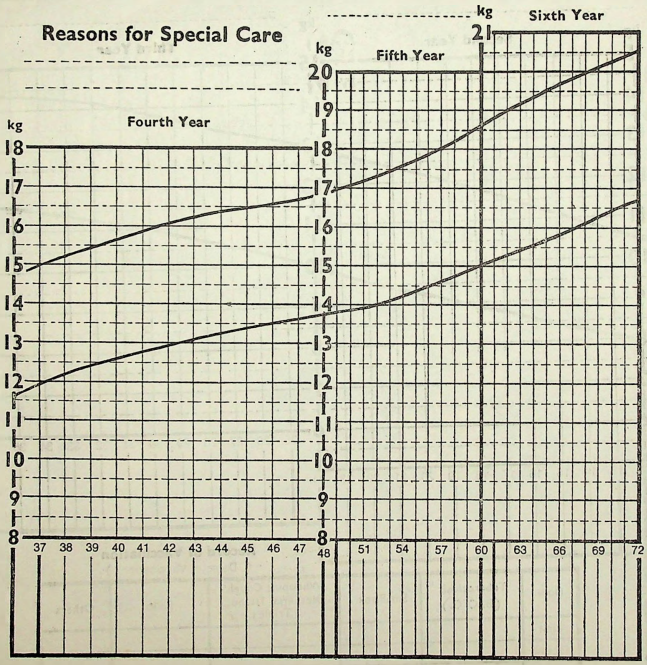


Record of Vaccination

(Dates of Vaccination)

Dose	Tuberculosis (B. C. G.)	Smallpox	Whooping Cough, Diptheria, Titanus, (Triple)	Polio	Others
First					
Second					
Third					
Booster					

Reasons for Special Care



KASA MODEL INTEGRATED MOTHER-CHILD HEALTH NUTRITION (MCHN) PROJECT

Primary Health Centre KASA, Taluka Dahanu, Dist. THANA

Centre/Village S. No.

Child's Name

Boy/Girl

Mother's Name

Index No.

Father's Name

Date of First Examination

Date of Birth

Address

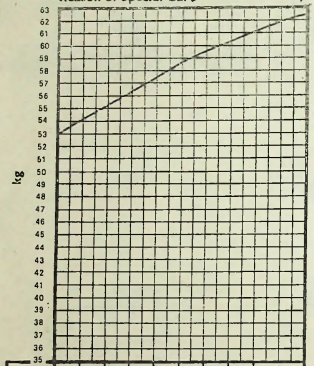
Brothers / Sisters

Date of Birth	Boy/Girl	Remarks

Observations in Pregnancy Period

Expected Date of Delivery

Reason of Special Care — Primy



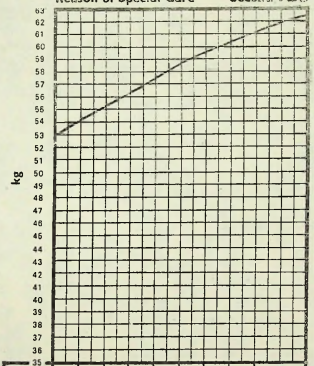
Months	1	2	3	4	5	6	7	8	9
Stage of Pregnancy								1 2	1 2 3 4
Position of Head									
Blood-pressure									
Oedema									
Haemo-									
Urine Albumin									
Antitetanus Vaccine									
Note									

Post-natal Observation

Date	Mother		Child	
	Breast feeding	Note	Weight	Note

Expected Date of Delivery

Reason of Special Care — Second Para



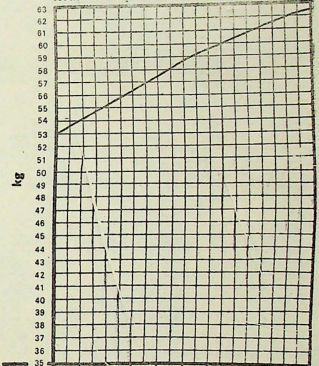
Months	1	2	3	4	5	6	7	8	9
Stage of Pregnancy								1 2	1 2 3 4
Position of Head									
Blood-pressure									
Oedema									
Haemo.									
Urine Albumin									
Antitetanus Vaccine									
Note									

Post-natal Observation

Date	Mother		Child	
	Breast-feeding	Note	Weight	Note

Expected Date of Delivery

Reason of Special Care — Third Para



Months	1	2	3	4	5	6	7	8	9
Stage of Pregnancy								1 2	1 2 3 4
Position of Head									
Blood-pressure									
Oedema									
Haemo									
Urine Albumin									
Antitetanus Vaccine									
Note									

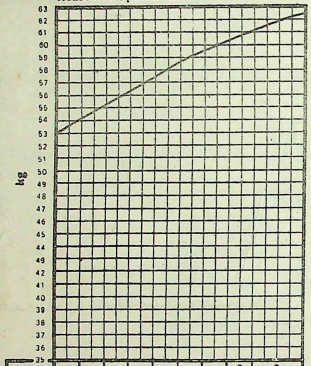
Post-natal Observation

Date	Mother		Child	
	Breast-feeding	Note	Weight	Note

Observations in Pregnancy Period

Expected Date of Delivery

Reason of Special Care **Fourth Para**



Months	1	2	3	4.	5	6	7	8 (1 2)	9 (1 2 3 4)
Stage of Pregnancy									
Position of Head									
Blood-pressure									
Oedema									
Haemo.									
Urine Albumin									
Antitetanus Vaccine									
Note									

Post-natal Observation

Date	Mother		Child	
	Breast-feeding	Note	Weight	Note

Observations of a Married Woman

Menstrual Cycle & Attitude towards Family Planning

Age in Years	Months: January	February	March	April	May	June	July	August	September	October	November	December	Weight	Haemo.	Antitetanus Vaccine 1	2
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
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42																
43																
44																

✓ Period regular	▽ Necessity of Family Planning	▼ Sterilization
× Period missed	▼ Family Planning Pills	□ Breast-feeding
○ Abortion	▼ Nirodh	▼ Loop

KASA MODEL INTEGRATED MOTHER-CHILD HEALTH NUTRITION (MCHN) PROJECT

Primary Health Centre KASA, Taluka Dahanu, Dist. THANA

Observations of Mother's Health

Village / Health Centre _____, Index No. _____ Date _____

Name _____

Date of Birth (Age) _____ First Menstruation (Age) _____ Date of Marriage (Age) _____

Address _____

_____

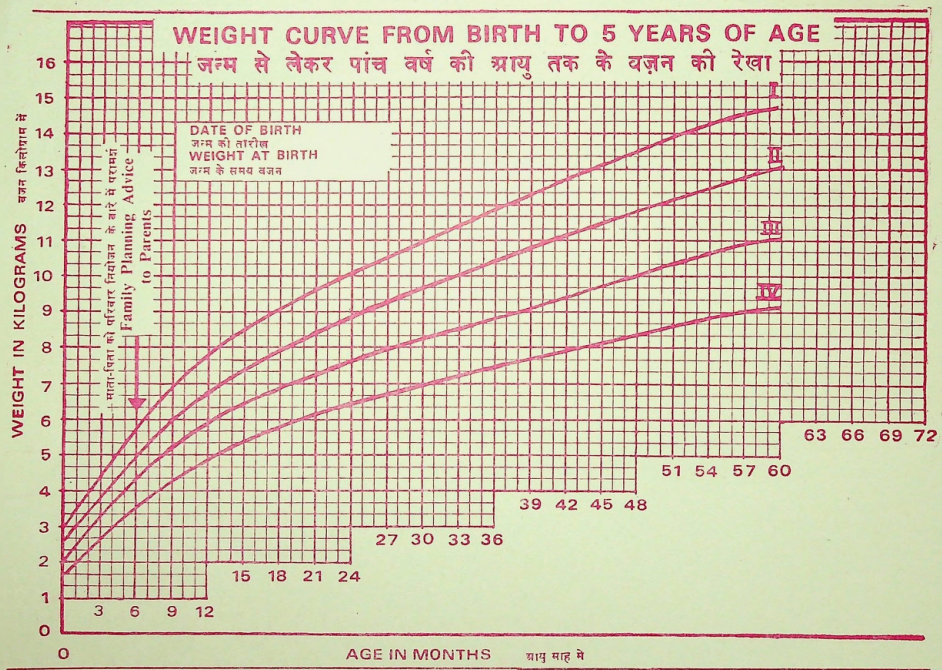
Weight _____ Height _____

Haemo. _____

History of Previous Deliveries

Para	Antinatal Health	Delivery	Boy	Girl	Age

सर्वांगीण बाल विकास योजना



सूचना.—(१) मुलाचा जन्म महिना व वर्ष रेषेच्या सुरुवातीला लिहा. मुलांच्या जन्माच्या वेळचे वजन व जन्म महिना यांच्यात तुलना करा. ज्या ठिकाणी वजन व वय ह्या रेषा एकमेकांना छेदतात तेथे खुण करा. नंतर त्या छेदलेल्या दोन्ही रेषा एकमेकांना रेषेच्या साहाय्याने जोडा.

सूचना.—(२) सदृढ बालकांचे वजन पहिल्या रेषेवर असावे. ज्या बालकाचे वजन रेषा एक व दोन या मध्ये असते. अशा बालकाच्या आईला सकस आहाराचे शिक्षण व माहिती देऊन त्याप्रमाणे त्याचा उपयोग घरी करावा. ज्या मुलाचे वजन दोन व तीन या रेषेच्या खाली आहे त्या बालकाची काळजी अंगणवाडी कर्मचाऱ्यांनी घ्यावी व त्याप्रमाणे सकस आहार द्यावा. ज्या अर्भकाचे वजन तिसऱ्या रेषेपेक्षा खाली आहे त्यांनी लवकर इलाज करावे. डॉक्टरांना भेटून त्यांचा सल्ला घ्यावा आणि ज्यांचे वजन चौथ्या रेषेपेक्षा खाली आहे अशा बालकाला दवाखान्यात औषध व उपचारासाठी ठेवून घ्यावे.

रोग प्रतिबंधक लस टोचण्याचे वेळापत्रक

१. देवी—

(१) प्राथमिक : जन्मल्यावर अथवा शक्य तितक्या लवकर.	दिनांक*
(२) लस टोचल्याची तपासणी . .	दिनांक
(३) एक वर्षानंतर पुन्हा देवी टोचणे आणि त्यानंतर प्रत्येक तीन वर्षांनी.	दिनांक

२. क्षयरोग (बी. सी. जी.)—

(१) प्राथमिक : जन्मल्यावर अथवा शक्य तितक्या लवकर.	दिनांक
(२) लस टोचल्याची तपासणी . .	दिनांक
(३) पुन्हा लस टोचणे (५–६ वर्षानंतर)	दिनांक

३. घटसर्प, डांग्या खोकला, धनुर्वात (त्रिगुणी लस टोचणे)—

(१) प्राथमिक : (४ महिन्यापासून ९ महिन्यापर्यंत) दोन डोस ८ ते १२ आठवड्यांचे अंतराने.	दिनांक दिनांक
(२) उत्क्षेपक डोस : १–½–२ वर्षांनी	दिनांक
(३) उत्क्षेपक डोस (डी.टी.) : ५ वर्षांनी	दिनांक

४. बाल पक्षघात (तोंडावाटे लस देणे)—

(१) प्राथमिक : चौथ्या महिन्यापासून तीन डोस, तोंडावाटे ४ ते ६ आठवड्यांचे अंतराने.	दिनांक दिनांक दिनांक
(२) उत्क्षेपक डोस : चौथ्या वर्षी एक डोस.	दिनांक

५. विषमज्वर—

(१) दोन डोस ७ ते १० दिवसांचे अंतराने (१ ते १½ वर्षांमध्ये)	दिनांक दिनांक
(२) उत्क्षेपक डोस : दोन डोस ७ ते १० दिवसांचे अंतराने (५–६ वर्षात)	दिनांक दिनांक

६. घटसर्प—धनुर्वात—

(१) प्राथमिक : जर त्रिगुणी लस बालपणी दिली नसेल तर,—	दिनांक
दोन इंजेक्शन्स (८ ते १२ आठवड्यांचे अंतराने)	दिनांक
(२) उत्क्षेपक डोस : एक इंजेक्शन पाचव्या वर्षी.	दिनांक

*डॉक्टर/परिचारिका कार्डावर इंजेक्शन दिल्याची नोंद करतील व मुलाला पुन्हा केव्हा आणावयाचे ते सांगतील

सकस आहारासंबंधी मार्गदर्शन

जन्मापासून एक वर्षापर्यंत—अंगावरचे दूध. सहा महिन्यानंतर मुलाला अंगावरचे दूध पुरत नाही. त्याला आणखी आहाराची गरज असते. जोपर्यंत अंगावरचे दूध पाजणे शक्य आहे तोपर्यंत ते द्यावे आणि त्याचबरोबर खालील आहार सावकाशपणे चालू करावा.

चौथ्या महिन्यात—जर अंगावरचे दूध कमी असेल तर, ताजे गाय, म्हैस, बकरी अथवा डब्यातील दूध द्यावे, त्याचप्रमाणे भात, सुजी, दलीआ, इत्यादी पदार्थ मऊ शिजवून व किंचित गोड करून द्याव्यात. भाज्यामध्ये बटाटा, गाजर यासारख्या भाज्या शिजवून व एकजीव केलेल्या द्याव्यात. पिकलेली केळी, गोड संत्रे, गोड मोसंबी, टोमॅटो रस द्यावा.

सहा महिन्यात—त्याप्रमाणे इतर घन पदार्थ वर नमूद केलेल्या पदार्थांशिवाय द्यावे. पाव, बिस्किटे, डाळी, मुग, तुर, मसुर यांस्य प्रकारे शिजवून द्यावे. उकडलेले मासे, चांगले शिजवलेले व कोवळे मांस, अर्धवट उकडलेली अंडी, दहि-ताक, छान भाजीपाला, कॉलीफ्लॉवर, कोबी, काकडी वगैरे सर्व तऱ्हेची फळे.

पहिल्या वर्षी—

(१) मुल कुटुंबातील इतराप्रमाणे गरम व मसालेयुक्त आहार घेऊ शकते.

(२) ज्यावेळी त्याला दात नसतात, तेव्हा चांगले शिजवलेले, भाजीपाला, भात, सुजी इत्यादी पदार्थ द्यावे.

(३) अन्न तयार करण्यापूर्वी, शिजवण्यापूर्वी तसेच मुलाला भरवण्यापूर्वी तुमचे हात स्वच्छ धुवून घ्या.

(४) मुलाला द्यावयाचे सर्व अन्न ताजे असावे, उरलेले व शिळे अन्न देऊ नये.

(५) कप, चमचे, वाटल्या इत्यादीसारखी भांडी उकळत्या पाण्याने धुवून घ्यावीत व झाकून ठेवावी.

माता व बालक ह्यांचे आरोग्य तक्ता २

मुलाचे कार्ड (आईच्या बरोबर असावे).
प्राथमिक आरोग्य केंद्र, एकात्मिकृत बाल विकास सेवा केंद्र.
रजिस्टर नंबर
गावाचा नंबर
नाव :
पुरुष/स्त्री
जन्मतारीख :
जन्माची सांगितलेली वेळ :
भावांची संख्या : बहिणींची संख्या :
शाकाहारी/मांसाहारी
आईचे नाव :
धंदा :
वडिलांचे नाव :
धंदा :
पत्ता :

वैद्यकीय अहवाल

रक्त गट :
बावडे असलेले पदार्थ वा औषधे :
इतर माहिती :

पालकांची कुटुंबनियोजनविषयी माहिती

(१) नियमित मुलांचे वजन केले जाते का ?

(२) वजन कार्डावर लिहिणे.

(३) प्रत्येक महिन्याला मुलाला घेऊन आरोग्य केंद्राला भेट द्या. असे दुसऱ्या वाढदिवसापर्यंत, नंतर तीन महिन्यांनी ५ व्या वाढदिवसापर्यंत, बरे नसल्यास केव्हाही ताबडतोब केंद्रात न्यावे.

(४) साथीच्या रोगापासून मुलाचे संरक्षण करण्यासाठी वेळोवेळी त्यास योग्य त्या प्रतिबंधक लस टोचून घ्या. ही सर्व सेवा मोफत आहे.

Case study

Community participation and nutrition

The Kasa project in India

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Approximately half of the deaths in India among children under six years of age are directly due to severe malnutrition and fetal malnutrition.

To improve the nutrition level and health of women and children in rural communities, with special care for those identified as "at risk", the Kasa project north of Bombay has bridged the wide gap between the community and the existing health delivery system through the use of link workers from the local villages and community participation. Health, nutrition, immunization, family planning, and nutrition education services are provided at the door-steps of all under-sixes and married women. The project operates out of a government Primary Health Centre with the objective of studying the feasibility of duplicating such a service delivery system throughout the country.

The organization of the Kasa project is discussed in this paper, with special emphasis on the nutrition aspect.

Considering the present trends in the development of medical services and the present rate of economic growth, it is doubtful whether at the end of this century the developing countries will be in a position to provide health care to all their people, including those in the most remote villages. Two thirds of the deaths

in these countries are not attended to by any medical personnel, and more than half of the world's people have no access to medical care. For those who are within reach of the medical care system, the contact may have no significant influence on their lives or health.[1]

The difficulties in delivering health services

There is a limited number of medical professionals, and in India, 80% of them have settled in cities to give medical care to only 19% of the country's population. Some 81% of India's population receives medical care through government-run Primary Health Centres (PHC's) where two doctors, and at times only one, look after the health of about 80 000 people in over one hundred villages, and where each auxiliary nurse midwife covers 10 000 inhabitants in ten to twelve villages.

Moreover, in India the average distance between the villages and the health centre is 9 km. 87% of the people attending the PHC's are from villages within a radius of 6.4 km.[2] Approximately 50% of the women are economically active.[3] In villages around Palghar, one of the project areas, about 60% of the mothers were daily wage earners and many others were heavily occupied in household chores. The majority of the children under six years of age who had the highest morbidity and mortality rates could not be carried to the nearby health centre by the working parents without a loss in daily wages.[4]

Generally, most of those who need health services are neither identified by health personnel nor do they voluntarily utilize the available services. The utilization rate of health services is poor in many developing countries. Long distances, difficult terrain,

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1 Bryant, John. *Health and the developing world*, Cornell University Press, London, 1969.

2 SEA/24/14, WHO SEARO, New Delhi, 24 June 1975.

3 *Demographic yearbook 1971*, UN, New York.

4 Shah, P. M. and Junnarkar, A. R., *Village assistants*, SEA/FP 13/12, WHO SEARO, New Delhi, 28 February 1974.

poor transportation, poverty, working mothers, heavy household chores, low health consciousness, doctors' and at times nurses' inclination towards private practice, cultural differences between those who administer medicine and its beneficiaries, the paucity of medical and paramedical personnel and their vague job assignments, faulty planning and organization of medical care often resulting from an attempted duplication of what is happening in developed countries, are some of the factors that have contributed to the under-utilization of available health services.

The community has a customary way of handling illness. First the advice of various people who are socio-culturally acceptable is sought, i.e., the family, the neighbour, the priest, the practitioner of indigenous medicine, the quack "doctor", and sometimes a "witchdoctor". Only in the event of an unsuccessful outcome from their attempts is the government health service, if available, approached.

Moreover, the medical needs are not complex, as they involve recognizing threats to health which are visible and constantly reoccurring, such as diarrhoea, upper respiratory infections, malnutrition, infectious diseases and infestations. Many of these illnesses are preventable. The management and prevention of many of them do not call for the services of a doctor or a nurse. The involvement of workers from the local community can be of considerable help in bridging the cultural as well as the manpower gap between the health services and the community.

Origin of the Kasa project

In the aim of developing an economical system of delivering integrated health and nutrition services to young children and mothers throughout rural India, the Kasa Mother-Child Health-Nutrition Project (sponsored by the government of India, that of Maharashtra, and CARE-Maharashtra) was initiated on 2 December 1974, in the entire area of the Kasa PHC. To a considerable extent, this model project is an extension of the programmes worked out by the Maharashtra government project on domiciliary treatment of protein-caloric malnutrition at Palghar, aided

by the WHO. The Palghar project has operated in a small area of 23 villages with a population of 23 916, since 1972. It was the accomplishments of this project[5] which stimulated the sponsors of the Kasa project to study the feasibility from the point of view of management and finance of duplicating the programmes in the wider area of a PHC, and to establish a model to demonstrate an integrated services delivery system.

The project's setting

The Kasa PHC covers all the villages in the Saiwan tribal development block, and all but nine in the Kasa block. There are 70 villages which have been stratified at the Kasa PHC according to the percentage of severe malnutrition cases among children under six years of age, divided into five groups of 14 villages each, from which ten basic control and five intensive study villages have been selected. The nine villages of the Kasa block which are otherwise in another PHC have been selected as additional control villages. The population of the 79 villages was 74 605 on 14 January 1975, of which 56 364 lived in the 60 programme villages.

Kasa village lies 126.5 km north of Bombay. The furthest village is 40 km from the PHC and 12 km from a health sub-centre. Per capita income in the project area has been estimated to be as low as Rs. 0.72 or US $ 0.08 per day. The literacy rates for male and female are expected not to exceed 20% and 10% respectively. 88% of the population is tribal, and socio-culturally and economically underprivileged. The area is hilly and covered with forests. A typical tribal village consists of a number of hamlets—six on the average—and some villages spread out over 5 to 6 km from one end to the other.

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5 Shah, P. M. and Junnarkar, A.R., *Domiciliary treatment of protein-caloric malnutrition : first year progress report*, Institute of Child Health, Bombay, 1973.

Shah, P.M. and Junnarkar, A. R., *Domiciliary treatment of protein-calorie malnutrition : second year progress report*, Institute of Child Health, Bombay, 1974.

All the villages have drinking water wells, except for some hamlets where the inhabitants have to draw from rivulets or walk 2 km to fetch water. The nearest telephone and telegraph communication is 25 km away. Except for a few houses in ten villages, there is no electricity.

Converting the existing staff into multi-purpose health workers

The normal staff structure of a PHC has been maintained at Kasa. As a matter of fact, for a period of 13 months there was only one of two medical officers on location. The eight auxiliary nurse midwives (two at headquarters and six in sub-centres) and four smallpox vaccinators all reside in different villages, except for two. Both of these categories of personnel have been converted into multi-purpose health workers. The job assignments and areas of service were discussed in a joint meeting and the auxiliary nurse midwives agreed to look after 6500 to 7000 inhabitants each in around seven villages, and the multi-purpose male health workers to cover some 3000 inhabitants in three to four remote villages, at times at a distance of 15km in a hill or forest area.

The job of sanitary inspector was converted into that of programme coordinator, who, with the nurse midwife, supervises the auxiliary nurse midwives and the male health workers.

Community part-time social workers

To bridge the gap between the auxiliary nurse midwife or male health worker and the community, 28 part-time social workers (PTSW's) were recruited from the local villages. The auxiliary nurse midwives and health workers form a cadre of immediate supervisors for the PTSW's, who cover about 2000 inhabitants each —on an average two villages—and work four to five hours a day. They receive an honorarium of Rs. 80 or US $ 9.20 per month. They provide health and nutrition care to all under-sixes and married women, and identify "at risk" children and pregnant

women. These are then attended to by the auxiliary nurse midwives and male health workers, while the medical officers concentrate on those referred for immediate care.

Additional input in terms of manpower is the programme officer. Each team member was consulted on the job description, and points for training and supervision were identified.

Selection of the PTSW's

At the onset of the project the programme was explained to the local communities. The attempt to involve a school teacher, a traditional midwife and the village head's wife as link workers was unsuccessful for the Palghar project, and hence in the Kasa project the communities were asked to suggest candidates from the villages. The 60 programme villages are divided into 28 zones, and each zone has a population of approximately 2000, scattered between one to three villages. The assistant block development officer and local leaders helped in the final selection of the PTSW for each zone. Emphasis was placed on selecting local middle-aged mothers with educational qualifications amounting to around seven years of schooling, and having leadership qualities and a desire to serve their community. The educational qualifications and age specifications were lowered for a persons who was dynamic and enthusiastic and demonstrated leadership ability.

In the Kasa project area, where the literacy rate for women is less than 10%, those who are literate received their schooling during the last decade, and hence it was difficult to find workers of middle age. The mean age of the workers is therefore 22 years, with seven years of schooling on an average, ranging from a minimum of four to a maximum of ten years. It was difficult to find female workers for all areas. In February 1976, 52% of the workers were tribal males, 24% non-tribal females and 24% tribal females. All but five of the 28 PTSW's are residents in the zones they serve, the five non-residents coming from adjacent villages.

The average number of months of employment is 12 after 16 months of operation. The drop-out rate has been heavy. Following the 1975 Kharif harvest, nine resigned, though some

PTSW's who resigned later rejoined. The turnover of male workers is greater than that of female. Many PTSW's who had completed eleven years of schooling left when they obtained more remunerative jobs. On the other hand, it was a dedicated worker with a higher educational level who achieved the most in the delivery of various services. Ten of the PTSW's have been with the project since the beginning of the pre-implementation stage in December 1974.

Four weeks of training

The initial training lasted four weeks, with classroom-cum-practical demonstrations and exercises for two weeks, and the remaining period spent in the field. The training included child growth and development, nutritional disorders, common childhood diseases, infectious diseases and immunizations, medical problems of pregnancy, delivery and post-partum. The training programmes were arranged to provide practical experience in taking and charting weights, identifying kwashiorkor, severe anaemia, gross vitamin A deficiency, and assessing the grade of malnutrition. The PTSW's were trained in ascertaining the correct age by using a local-events calendar especially prepared for the region.[6] The training consisted of very simple explanations in the local dialect, and covered the jobs assigned to the workers. In order not to disturb their family life, the trainees returned home every night. At times some workers attended the training course along with infants. The trainees' travel expenses were reimbursed, and they were given daily allowances. The training programme was conducted by the programme officer, a medical officer, the nurse midwife, the sanitary inspector, and an auxiliary nurse midwife.

Experience showed that these workers have a limited retention capacity, and hence the training period should be short. However, it should be supplemented with built-in ongoing training.

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6 Shah, P. M., *Early detection and prevention of protein-calorie malnutrition*, Popular Prakashan, Bombay, 1974.

Assignments of the part-time social workers

1. *They conduct a census* during the first month after training, which is kept up-to-date and verified quarterly.
2. *They undertake a monthly sequential weighing of children* and the recording of their weights on charts.
3. *They visit all married women every month*, filling in their cards so that early pregnancies can be detected and care provided during the antenatal period and labour. Within a fortnight of a missed period, if the woman desires to terminate her pregnancy, she is referred to the medical officer for menstrual regulation.
4. *They independently conduct "clinics" for under-sixes and pregnant women;* this activity is supervised by the auxiliary nurse midwives according to a time-table.
5. *They identify children and mothers who are "at risk"* and in need of special care, on the basis of criteria listed below, and show them to the auxiliary nurse midwife and medical officer at the time of their visits.
6. *They visit each child and woman* at least once a month; children and women needing special care are visited every week or fortnight.
7. *They treat minor common illnesses* after one year's job experience, according to a manual of "Standing Instructions"[7] which is prepared in local dialect and describes the symptoms of common diseases and their management. They are equipped with electrolyte powders, massive vitamin A tablets, iron-folic acid tablets. piperazine, aspirine and sulphadiazine. They refer acutely ill children, mothers and even other adults to the auxiliary nurse midwife or doctor for examination and treatment, and then continue the implementation of the prescribed treatment for malaria, tuberculosis and leprosy patients.

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7 Shah. P. M. and Shah. Kusum P., *Standing instructions to the nurses and part-time social workers for the timely health care of children and mothers*, the Kasa Integrated Mother–Child Health–Nutrition Project, Primary Health Centre, Kasa, 1976 (mimeographed text).

8. *They distribute nutrition supplements* to children and mothers according to guidelines; they solicit the help of older village women or men for daily distribution of supplements to all beneficiaries, once they are collected together in a group, to ensure the on-the-spot consumption of the supplements by the designated beneficiaries.
9. *They administer a massive oral dose of 200 000 international units of vitamin A* every six months to the specified children in the one to six years of age group, and treat the diagnosed cases of hypo-vitaminosis A as instructed.
10. *They help in immunization programmes* by collecting children and women for vaccination when auxiliary nurse midwives or immunization teams visit the village.
11. *They chlorinate the drinking water wells* in their service area every month.
12. *They give nutrition and health education* in homes and in "clinics", to individuals or groups.
13. *They collect vital statistics* and maintain simplified records. These include weight charts and women's cards in duplicate. The original copies are kept by the married women and mothers. The weight chart reinforces the education on good health and nutrition.
14. *They motivate parents to plan their families.*
15. *They assist auxiliary nurse midwives* in examining the haemoglobin and urine of pregnant women.

The performance of the PTSW's depends upon the quality of their training and supervision. It takes two to three months for them to develop perfection in the methodologies.

A typical day's work for a PTSW

The PTSW leaves her home at 10:00 in the morning and visits the hamlets of a village as per her time-table, which is prepared in advance for one year and revised every two months, if necessary. She carries a shoulder bag which accommodates the duplicate weight charts and cards of the under-sixes and women of the

hamlets she is to visit that day, a weighing scale, a small spring balance, an adult portable scale once a month if there is a pregnant woman, the lists of "at risk" children and pregnant women, index cards and medicines. She collects the children and mothers in someone's home or beneath a tree.

She weighs all the children; identifies the grade of nutrition by slipping the weight chart into a plastic overlay stencil which has multiple lines on it to indicate the various grades; decides whether nutrition supplements are needed; enquires about illness, particularly in "at risk" children and women; administers medicines; talks to mothers about feeding, hygiene and child care. She enquires about the menstrual history of the women and enters it on their card, records abortions, still-births and the state of pregnancy. She visits homes to see those who have not attended the "clinic".

One day a week she distributes nutrition supplements in all the hamlets of a village, and examines the children and women in only one hamlet. She meets with local leaders, and casually with traditional midwives and practitioners, but does not interfere with their management. If there is any serious case or acute illness she reports it to the auxiliary nurse midwife or doctor. She maintains a diary on the day's work and keeps records of the nutrition supplements and drugs.

The auxiliary nurse midwife or male health worker visit the PTSW's area twice a week and guides and supervises her work. They both go to the homes of "at risk" cases who have not reported to the "clinic".

A doctor visits the PTSW's village once in five weeks, unless there is an emergency.

Surveillance of children "at risk"

For an indefinite period of the future the health services of most developing countries will not be able to meet either the "real" or the "felt" needs of rural communities, since the resources will continue to be in short supply. Therefore priorities must

be set in relation to national epidemiological profiles so that available resources are used with maximum efficiency.[8] Among the primary objectives of the health services is the reduction of the death rate and of illnesses that lead to crippling consequences. Half of the deaths in children under six years of age in the rural project area of Palghar were directly due to severe malnutrition and fetal malnutrition. However, 75.5% of the children of this age group who died had associated severe malnutrition.

At the Palghar project 84% of the under-sixes who died showed one or more of the "at risk" indicators listed below. After a grass-roots level health care system was organized, it was possible for PTSW's to identify as "at risk", in advance of their deaths, approximately 76% of the under-fives who died.[9]

The persons listed as "at risk" form the principal target group for most project programmes. A child under six years of age is listed as "at risk" if he has any one of the following indications :

- weighs 65% of the Harvard standard or less
- fails to gain weight for three successive months
- loses weight during two successive months
- weight less than 1.5 kg at birth
- has an illness such as measles or acute gastroenteritis.

At the Palghar project, two thirds of the "at risk" under-fives have been so classified because of severe malnutrition. The "at risk" under-fives represented 2.1% of the total population, and yet the deaths among this group represented 21.5% of the total deaths, indicating the magnitude of the reducible mortalities if special care is directed towards the "at risk" segment of the population.[10]

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8 Shah, P.M. and Junnarkar, A. R., *Weightage of the various "at risk" factors and practicability of management*, paper presented at the International Working Conference on "at risk" factors and health of young children, Cairo, June 23–28, 1975 (in press).

9 *Ibid.*

Shah, P. M., Junnarkar, A. R., Khare, R. D. and Dhole, V. S., Community-wide surveillance of 'at risk' under-fives in need of special care, *Jour. Trop. Ped. and Env. Child Health*, no. 21, 1976 (in press).

10 *Ibid.*

In the Kasa project, 25.5% of the under-six children were "at risk" in May 1976. On an average there were 86 "at risk" children, distributed between two villages or 12 hamlets, under the care of one PTSW.

Extending the "at risk" concept to women

So that perinatal deaths and the incidence of babies born underweight can be reduced, the "at risk" concept has been extended to pregnant women. They are classified as "at risk" if one or more of the following factors apply[11] :

- weighs 38 kg or less before pregnancy; or weighs 42 kg or less at the 34th week of pregnancy
- is less than 145 cm in height
- is severely pale
- has a child from a previous delivery who weighed less than 2 kg.
- had swollen legs while pregnant or having swollen legs at time of examination
- has high blood pressure
- below 18 or above 30 years old and primaepara
- is 35 years old or above at the time of pregnancy
- has a history of abortion or still-birth during a previous pregnancy
- during a previous pregnancy, lost her child within one month
- is carrying her fifth or later child
- has a history of bleeding during pregnancy
  doubt about her having twins
- had a previous caesarian delivery
- has jaundice.

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11 Shah, Junnarkar, Khare and Dhole, *op. cit.*

Employment for "at risk" families

The supervisory staff must see "at risk" children and women while visiting villages or hamlets, advise PTSW's on their management, and refer or show these cases to the medical officers. Families are graded as "at risk" when there is more than one child suffering from severe malnutrition.[12] The parents of these families are recommended for jobs to the local block development officer. Under the Government Employment Guarantee Scheme, they receive preferential treatment, and those who wished to work have not been disappointed.

The proper use of an "at risk" system depends upon a constant up-to-date flow of information not only on nutritional status, but also on acute episodes of diarrhoea, measles, and birth of underweight babies, as well as on emergencies and labour. There are 17 villages which are very remote, a five-to six-hour walk from the PHC. Homing pigeons stationed in remote villages can bring a message to Kasa within half an hour.

Identifying food beneficiaries

A system for the effective surveillance of all under-sixes and married women, especially pregnant women and lactating mothers, has thus been established for the entire project population, no matter how remote the village.

Weight standards have been established for the inclusion of under-sixes and women as nutrition programme beneficiaries. Under-sixes weighing 65% of the Harvard standard or below, receive food supplements until such time as they have reached a weight equal to or above 65% of the standard, and maintain that weight for six weeks. Food beneficiary lists are up-dated monthly by the PTSW's.

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12 *Ibid.*
Khare, R. D., Shah, P. M. and Junnarkar, A. R., Insight into the etio-ecological factors of kwashiorkor in a community, *Ind. Ped.*, no. 13, 1976, pp. 405–407.

The 65% mark was established for economic reasons. It had been observed at the Palghar project that the number of children in the bracket of 66 to 70% of this standard was greater than all those whose weights were in the 65% bracket or below.[13] This was confirmed at the Kasa project. Therefore, to include the children in the 66 to 70% bracket would be to double the cost of nutrition supplementation, an important consideration in the implementation of a large-scale progamme.

Women who weigh 42 kg or less at the 34th week of pregnancy[14] also receive supplements during the remaining weeks of pregnancy and continuing through the first four weeks of nursing.

Distributing supplementary foods

Roasted Bengal grams and ground-nuts purchased in Bombay are used as supplements to provide 361 calories and 17.9 g of protein to the needy child and 541 calories and 26.8 g of protein to a pregnant or nursing woman. Severely malnourished children in the age group of 9 to 15 months are given the same items mixed with jaggery, a coarse brown sugar, in powdered form, supplying 291 calories and 11.3 g of protein. All pregnant women receive an iron-folic acid tablet three times a day during their last three months of pregnancy.

Ground-nuts and grams are highly acceptable to beneficiaries, and are supplied every day of the year. The ground-nuts are roasted at Kasa. Daily rations of supplements are packed at the project office in polyethylene bags during monsoon and in locally prepared paper bags in other seasons. The minimum shelf life of supplements in polyethylene bags is approximately eight weeks. As ground-nuts and grams are snack items, they are eaten as supplements and not as the substitute for a meal.

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13 Shah, P. M. and Junnarkar, A. R., *Domiciliary treatment : second year progress report*, *op. cit.*

14 Shah, Kusum P. and Shah, P. M., Relationship of weight during pregnancy and low birth weight, *Ind. Ped.*, no. 9, 1952, pp. 526–531.
Shah, Kusum P., Selection of pregnant mothers as beneficiaries for nutrition supplements, *Jour. Obst. and Gynaec. India*, *No.* 25, 1975, pp. 371–373.

In May 1976, 2259 children, or 23.8% of the child population, were receiving nutrition supplements. During the year from May 1975 to May 1976, the nutritional status of 11.3% of the severely and moderately malnourished children, weighing less than 70% of the reference, improved.

The community was approached for a daily contribution of milk for several severely malnourished infants under nine months of age whose mothers had lactation failure. Three infants are receiving 250 ml of milk per day provided by the community.

During the monsoon, when it is difficult to walk on the muddy roads and rivulets are in spate, 85% of the food deliveries were made to the beneficiaries in the "inaccessible zones" of the project. In the summer, deliveries of nutrition supplements increased to 98.9% in all the zones covered by the PTSW's. With such a high level of distribution, a new problem has arisen, that of storage facilities. A solution to the problem is being sought by building traditional rat-resistant storage containers with the assistance of the local community.

Immunization programmes

The immunization campaign was intentionally begun nine months after the implementation of the nutrition and health programmes, so as to have better rapport with the community. The mass campaigns were organized during November and December 1975 (13 days) and February 1976 (12 days), in which the district BCG team and the PHC staff members participated (the sanitary inspector, four smallpox vaccinators, seven auxiliary nurse midwives and 28 PTSW's). The community was informed and educated beforehand. In May 1976 a ten-day campaign was carried out by the local PHC staff to reach the defaulters. Ongoing immunization programmes for smallpox and DPT have been continued by the auxiliary nurse midwives and male health workers.

The children's immunizational status for smallpox and BCG vaccines increased from 52.3% and 0.2% to 94.2% and 54%

respectively during the year from June 1975 to May 1976. Only 2.1% and 1.4% of the eligible children were immunized with I and II doses respectively of DPT vaccine in June 1975. At the end of one year, the rate had shot up to 81.8% and 57%.

These achievements were very remarkable in view of the terrain of the project area, the sizable tribal population (88%), and the scale of the operation (9560 under-sixes). The good results of the immunization programmes depict clearly the extent of the rapport the PTSW's have developed with the villagers. Three monthly campaigns for defaulters and ongoing programmes by the auxiliary nurse midwives and male health workers, with the assistance of the PTSW'S, will cover the remaining population. One BCG mass campaign is also to be organized to reach defaulters.

Family planning

An analysis of households with children suffering from kwashiorkor in the tribal villages at Palghar revealed that children up to the age of 14 formed 60.8% and the under-fives 32.7% of the population.[15] The planning of families particularly through spacing is of utmost importance in preventing severe malnutrition.

It was decided that family planning programmes would be taken up in the second year of the project, after a rapport had been developed with the communities. During the year from April 1974 to March 1975, only 45 vasectomies had been performed at the Kasa PHC. During the year from April 1975 to March 1976, the figure increased to 750 vasectomies and 27 tubectomies. As a matter of fact, the family planning programmes were intensified only after November 1975, and there was only one medical officer at the PHC. The performance exceeded by 19% the revised target set for the PHC by the government. It was the first time tubectomies were performed in the Kasa PHC area.

Vital support for the campaign came from government and local bodies such as the administrative body at the block level

15 Khare, Shah and Junnarkar, *op. cit.*

(Panchayat Samiti) and the Forest Workers' Society, which provided generous cash incentives. All the staff members of the PHC and the PTSW's strived to reach the target. The family planning programme will continue to be a regular PHC activity.

Health and nutrition education

The primary educational tool is the home-retained record card of the under-sixes and women. Healthy normal children, or those who were malnourished and are now improved, serve as models for demonstration. Most of the working mothers of "at risk" under-sixes leave their small children in the care of older ones of six to eight years of age. These young mother-substitutes feed the smaller children only twice a day. The PTSW's attempt to discuss with them the amount and frequency of the feedings to be given to the young children. The advice as to feeding depends upon the availability of food at home. During the two months of summer, some of the families live only on tuber roots or gruel prepared from wheat or millet, and the PTSW's suggest that the small infant's intake be supplemented with these items. Person-to-person or small group talks are part of the educational activities.

Community involvement

Medical programmes in developing countries have been structured with little regard to active participation of the community. The services offered by the state are often accepted passively as aid or charity. Few measures have been taken to inculcate community responsibility for maximum utilization and development of the health facilities, an essential component of total community development. Health workers should have a good understanding of total community development programmes and be able to stimulate an attitude of "self-help" and positive action among the population, which is most often willing and able to contribute, even though poor.

Participation in nutrition programme

With these objectives in view, the PTSW's, who have been recommended by their communities, have been involved in stimulating more "self-help" in terms of community participation in the programmes. They meet with the villagers and their leaders and inform them of the nutritional and immunizational status of their children, and list the names of those who are "at risk" and require special care. The social problems encountered while running these programmes are discussed and many times solutions have been suggested by the villagers themselves. A fairly good rapport has been developed with all the villagers.

The villagers provide "clinic" sites on the verandas of their huts or houses. They assist in collecting the children and women. In approximately one third of the villages, someone from the hamlet collects the beneficiaries and has them eat their nutrition supplement in front of her or him. When told of the problem of feeding small infants whose mothers had lactation failure, the community provided milk for 13 children in the Palghar project and three in the Kasa.

Road construction and active support of immunization campaigns

There have been instances at the Kasa and Palghar projects when villagers have constructed roads to facilitate communication with the PHC. During mass immunization campaigns, the block administration *(Panchayat Samiti)* sanctioned Rs. 2500 (US $ 290) for the project, and the Forest Workers' Society and villagers made arrangements to meet the local needs of the teams, serving tea, breakfast, lunch and dinner for 36 persons for a total of 25 days. The village leaders educated the population on immunizations and collected children for the shots.

Financial contributions

The Palghar project, after its four years of existence, is now being financed entirely by the local village level administrative body *(Gram Panchayat)* and block level (*Panchayat Samiti)* and

district level people's administration *(Zilla Parishad)*. These are contributing 20, 30 and 50% respectively for the salaries of eight PTSW's and the district administration will provide the necessary nutrition supplements. The local health unit staff will manage, guide and supervise the programmes. At present the operational research team has withdrawn completely, and will carry out a survey after two years.

This financial contribution from the local community will generate the active involvement of the villagers, which should lead to a better performance on the part of the PTSW's and to a greater awareness that everyone in the village indirectly contributes towards her or his remuneration. The field of community participation could be widened to include improvement of the water supply, environmental sanitation, communication and obtaining of grains and funds for nutrition supplements for the children and mothers. The community's organized participation can be of assistance in establishing cottage industries, which could eventually help to raise its income.

Collaboration with traditional health practitioners

A meaningful collaboration with the 140 traditional midwives *(Dais)* and 278 traditional practitioners *(Bhagats)* of the area is still to be organized. However the PTSW's and supervisors have maintained good relations with this community health personnel.

Some conditions for success

In bringing health and nutrition services to the most needy villagers, the first step is to identify them. This the PTSW's can do after a short training period. In the long run, the educational level of the link worker may not be so important as a willingness to learn, initiative, and the stamina to cover the required distances. Once a pattern for the delivery of health and nutrition services has been established, the turnover among the PTSW's is

of less importance, because of the trust already established between the villagers and the PHC staff. When the community has an understanding of the programmes, it is easier for the replacement worker to function well from the start.

A critical analysis of the accomplishments and deficiencies of the Kasa project, which is in operation in the context of a government PHC, reveals that the planning, coordination, supervision and other components of management are the sine qua non for the successful implementation and duplication of such programmes elsewhere.

MAHARASTRA

1. Appasaheb Patwardan Memorial Trust
GPF Mahatma Gandhi Seva Mandir (MH-13)
252, S.V. Road, Bandra (West)
Bombay 400050.

2. Maharogi Sewa Samiti (MH18)
GPF Dattapur 442 001.
Wardha Dr - Maharashtra

3. Agricultural Institute (MH-29)
UNICEF Kosbad, Maharashtra.

4. Integrated Hlth Services Project. (MH5) — Dr. Kalindi Thomas.
UNICEF Miraj Medical Centre
VHA Miraj.
Sangli Dr. - MH.

5. Comprehensive Rural Hlth Project. (MH2) — Dr's Arole
UNICEF ICMR. Jamkhed.
Dr. Ahmednagar - MH. 413201

6. KASA Integrated MCH - Nutr. Project (MH3)
UNICEF Dahanu Taluka, [Institute of Child Hlth
Thana Dr. (400008 → JJ gp of hospitals + Grant Med college) RFPA - Palghar]

7. Kasturba Hlth Society — Dr. Ulhas Jajoo
UNICEF ICMR. Sewagram
Wardha - 442102

8. Foundation for Research in Comm Hlth. (MH4) — Dr NH Antia
54-A, Abdul Gaffar Khan Road. (godrej)
UNICEF ICMR. Worli - Bombay 400018.
(RFPA - Uran + North Alibag Taluk).

9. Maliwada (Deogiri) — Vinod Parekh
UNICEF Aurangabad Dr - MH — W J Patterson.

10. Sane guruji Vidya Prabhodini (MH15)
UNICEF also Janatha Shikshan Mandal,
~~Khoo~~ Khiroda, Jalgaon Dr.

11. B. J. Medical College (M-16)
UNICEF Poona, MH
(RFPA - Sirur)

12. Uruli Dewadi (MH17) — Ashok Tupe
Working President
UNICEF Shajeevan Audhyogik
Sahakari Society Ltd
Bare Satra Nali,
Hadpsar, Poona - 28.

13. MRA Centre, Asia Plateau (M-27)
Panchgani - MH.
412805

14 Maharashtra Lokahita Seva Mandal (M-25)
16, A. St. Francis Avenue,
Santa Cruz (West)
Bombay 400054

15 ASC Rural Dev. (Worli Village Shahabari) - M-24.
SYS. 121 Maharshi Karve Road,
Bby - 400020.

PTO

16. Shantivan Shetkari Seva Mandal — Fr Peter D'Mello (Pradeep) / Nicky Cardoza
IMPRINT. Ashagadh, (Jesuits)
Talasari
(Uplat village - Franciscan)

17 Peoples Science Movement (M-21)
(Lok Vidnyan Sanghatana)

18. Gramayan
SYS. 1025, Sadashiv Peth,
Pune - 411030

19. Shramik Sanghatana.
Dhulia.

20. Centre of Science for villages (M-11) — Devendrabhai
SYS. Magan Sangrahalaya,
Wardha 442001

21. President, Maharashtra VHA — ~~[illegible]~~ Dr S.T. Gujar
~~[illegible]~~
VHA Sane Guruji Rughalaya,
Hadpsar.
Pune - 411028.

22. Sec. Maharashtra VHA — P.D. Gupte,
Pune Medical Foundation
VHA Ruby Hall Nursing Home
Pune - 411001.

23 Chinchpada Christian Hospital, (M-1)
VHA Chinchpada,
Dt. Dhulia
MH - 425427.

24 Rural Hlth Research Project — Alok Mukerjee.
3 R Society
VHA Mandwa, Post Saswane
Alibag Tk,
Colaba Dt
Bombay

25. Comprehensive Hlth Care & Dev. Project (M-6) — Dr Dayalchand.
VHA Mission Hospital
P.O. Pachod, Aurangabad Dt
MH

26. Chetna Vikas, — Abhay & Rani Bang
MFL Gopuri, Wardha.
442001.

27 Anant Phadke,
MFL 50 LIC Qtrs,
Pune 411016.

28 FREA. India — Mr Ulhas Gorey.
8, Sind Chambers.
Colaba causeway
Colaba. B'bay 400005.

29. Dr V.M. Medical College, Sholapur
IAPSM RFPA - Tasgaon

30. Medical College, Aurangabad
IAPSM RFPA - Paithan

Maharashtra - contd

31. Bharatiya Agro Industrial Found:
Urulikanchan, 412202 (M-30)
Pune Dr, MH
Dr D.V. Rangnekar.

32. MOTT, plot No 7,
Siddhayan-
Sitaram Das Rd
Nagpur - 440013
I-r Vaidkar
Sr Sane

33. Yusuf Meherally Centre
Tara, Panvel TR,
Dr Kolaba - 410207

34 Centre for Studies in Rural Dev:-
Station Road
Ahmednagar - 414001

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TRAINING A HEALTH WORKER AT VACHAN

Introduction:

In the context of Primary Health Care approach, a VHW is seen as

- MOTIVATOR
- EDUCATOR
- SERVICE PROVIDER

for all the activities under its perview viz,

antenatal care (registration, provision of iron supplement)
Post-natal care (same as ANC plus advice on breast feeding):
immunisation (motivate follow up)
growth monitoring (weighing and educating mothers)
diarrheal diseases control (ORT) and so on.

At VACHAN a different view is taken; particularly in the light of the lack of availability of curative services. A HW is

- a provider of primary level CURATIVE HEALTH care service.
- a provider of REFERRAL advice for serious ailments.
- an EDUCATOR as a part of his role as a healer.
- a MOTIVATOR for health measures hitherto not taken by the community : ORT/ disinfection of wells.

SELECTION OF HEALTH WORKER

Objective

To locate a person who is

- ACCEPTABLE to all sections of the community.
- having an EDUCATIONAL BACKGROUND to enable him/her TO LEARN the necessary diagnostic skills(Normal in VACHAN is fifth to ninth standard educated boy/girl).
- placed at a DISTANCE which can be comfortably traversed by a moderately ill person or a pregnant woman say about one kilometer.

Process:

- Nomination by the community usually in a community meeting.
- final selection (if more than one person nominated), by VACHAN after 2-3 contacts with the nominees in a training session.

TRAINING OF HEALTH WORKER

Level A:

Having knowledge and skills to tackle health problems that

- are not life threatening
- do not require complex decisions to diagnose
- are amenable to simple treatment
- do not involve use of antibiotics or medicines that may have serious side/toxic effects.

Problems include

- viral infection like cold influenza, mumps, chicken pox, uncomplicated measles, viral diarrheas with mild or moderate dehydration.
- other infections like uncomplicated amebic, bacterial dysentry with mild dehydration amenable to 48 hours of treatment, giardiasis fungal ingection of skins like ring worm.
- infestations like scabies, lice and worms.
- wounds with no sign of spread of infection and of injury to important structures like bones, arteries, nerves.
- allergic conditions like rashes, colds, uncomplicated asthama.
- symptomatic treatment for short period for headaches and joint pains, hyperacidity, dry coughs.

Training includes:

- Anatomy and Physiology particularly their applied aspects.

- Concepts in Pathology e.g.
  . immunity, antibodies and vaccines, inflammation and healing.

- Concepts in Microbiology
  . Different types of micro-organisms viz, viruses bacteria, fungi and unicellular organism like ameba

- Types of bacteria
  . Based on staining methods

- Concepts in Pharmacology
  . Drugs Action
  . Side and Toxic effects
  . Essential Drugs
  . Rational Drug use
  . Misuse of drugs incl. injections, tonics.

- Concepts in Nutrition:
  . Components of our food & their functions: Carbohydrates, fats, proteins, vitamins, minerals
  . Their sources
  . Nutritional deficiencies, symptoms and signs, treatment, prevention

- Concepts in Diagnostics
  . Problem solving Approach to medical/health problems
  . History, Examination and Investigation
  . Clinical Examination: What to look for: Anemia, nutritional deficiency etc.
  . Use of Diagnostic chart & Table : Fever & Diarrhea in adults. (See Table I and Chart attached)*

- Child Health:
  . Weight Monitroing
  . Nurtitional advice - weaning foods
  . Immunisation
  . Common diseases/ problems

* Source: 'Bharatvaidyak' - A training manual in Marathi prepared by Drs Ratna and Sham Ashtekar. Bharatvaidyak Samstha, Dindori. D. Nasik, Maharashtra.

Level B:

Having knowledge and skills to tackle health problems that

- are not immediately life threatening
- do not require complex decisions for diagnosis
- are amenable to simple treatment/ first aid measures.
- may involve use of antibiotics or medicines that have no toxic effects if used with caution.

Problems Include

- Bacterial infections like tonsilitis, middle ear infection, pneumonias, bacillary dysentery, urinary tract infections, infections following delivery, vaginal infections,
- wounds with signs of spread of infection
- bronchitis following filarial infection,
- bleeding after delivery
- referral advice for ailments like sudden severe pain in abdomen, problems involving the central nervous system or the circulatory system, problems of children that cannot be tackled by them,
- Symptomatic relief for vomiting, motion sickness, pain in abdomen

Training includes :

- Pharmocology of anti-biotics
- Diagnostics involving clinical training in a hospital set up.

TABLE—1

CLASSIFICATION OF AILMENTS FOR PARAMEDICAL TRAINING PROGRAMME

Group of ailments	Diagnostic Feasibility	Treatment Feasibility	Safety Factor	Prevalence Factor	Ailments
1. Minor ailments	††††	††††	††††	††††	Common cold, minor cuts, headaches, constipation, fungal infection, scabies etc.
2. Major ailments	†††	†††	†††	†††	Diarrhoea, dysentery, URTI, malaria, otitis media, vaginitis, hyperacidity hepatitis, etc.
3. Serious ailments	††	††	†	†	Pneumonia, typhoid, fever Acute abdomen, meningitis, Diptheria, tetanus etc.
4. Important chronic conditions that need early detection and health education.	††	††	††	††	Tuberculosis, leprosy, filariasis cancer, etc.
5. Acute emergencies that need first-aid and referral	†	†	†	†	Snake bites, Burns, Severe dehydration; major accidents specially involving brain, chest abdomen and haemorrhages etc.

Note: 1) The examples under 'ailments' heading a.e not a compete list but only a few cases for illustration.

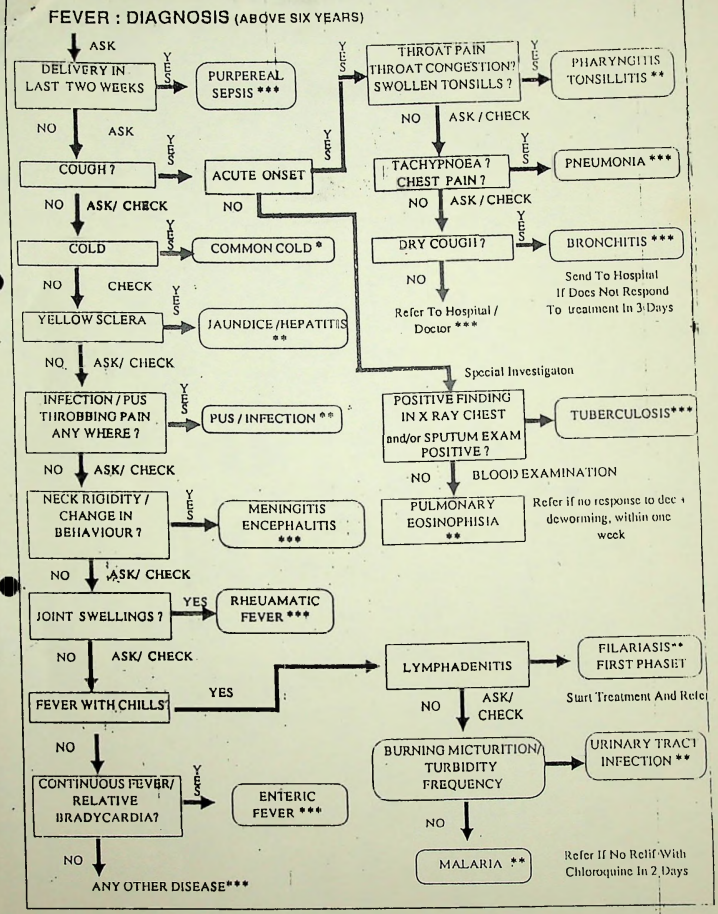
2) The difference betwen category 3 and category 5 is that in category 3 (serious ailments) there is little scope for first aid while in the later first aid can often save the patients.

3) The diagnosis of, say snakebite, is easy but that of its effects is difficult and hence the overall diagnostic feasiblity is poor.

4) Category 1 can be safety attended by the paramdicals, while category 2 should be attended with caution watching for indications for referral. Category 3 should be immediately referred to medical experts. Category 4 needs high suspicion index for early detection, supervision over the treatment and health education and category 5 assisted with first aid before sending for expert care.

FEVER DIAGNOSTIC CHART (FOR PERSONS ABOVE SIX YEARS)

OTHER COMPLAINTS								INFORMATION ABOUT FEVER					A : ALWAYS, C: COMMONLY, R : RARELY, L : LATE	* TREAT ** TREAT WITH CAUTION *** REFER TO HOSPITAL
								How Much			Character			
Cough	Throat Pain	Chest Pain	Abdominal Pain	Nausea Vomiting	Bodyache	Headache	Joinlpain	Low	Medium	High	Continuous	Irregular	OTHER SPECIAL FEATURES	DIAGNOSIS
L	L				C	C	R	C	R		C	R	Eyes congested, Stuffy nose, Contagious	Common cold *
C	C				C	C	C	R	C		C	R	Malaise, Prostration	Flu *
A	A			R	R	R	R	R	C	R	C	R	Redness on throat / tonsills, Dysphasia	Pharyngitis, Tonsillitis
A		C		R				C	R		R	C	Dry cough initially, Followed by productive cough	Bronchits **
A		A	R		C	C	R		R	C	C	R	Acute onset, Dyspnoea, Prostration	Pneumonia ***
C		C			C	R	R	C	R		R	C	Chronic condition, Anorexia, Productive cough	Tuberculosis ***
				R	R		R	C	R	R	R	C	Check site of infection, Lymphadenitis	Infection / Abcess **
			C		A	A	R		C	R	C	R	Prostrations, Relative Bradycardia	Enteric Fever ***
			A	A	C	C	R	C	R	R	C	R	Hypochondriac tenderness, Yellow sclera	Hepatitis / Jaundice **
			R	C	A	C	R	R	C		R	C	Faer with chills, daily or alternate day	Malaria **
				A	C	A	R		R	C	C	R	Neck rigidity, Change in behaviour	Meningitis ***
		L					A	R	C		C	R	Joint swellnes, Valvular heartdiseas	Rheumatic Fever ***
								R	C			C	Lymdhadenitis, Send night blood smear	Filariasis, First Phase **
			C	C	C	R	R		C	R	R	C	Burning / ferqueney / turbidity of urine	Urinry tract infection **
										C	A		Hot environment, Acute onset	Heat stroke **
			C	R	C	C			R	C	C	R	Delivery in last two weeks	Purpereal sepsis ***


FEVER : DIAGNOSIS (ABOVE SIX YEARS)
ASK
DELIVERY IN LAST TWO WEEKS
YES
PURPEREAL SEPSIS ***
NO
ASK
COUGH ?
YES
ACUTE ONSET
YES
NO
ASK/ CHECK
COLD
YES
COMMON COLD *
NO
CHECK
YELLOW SCLERA
YES
JAUNDICE /HEPATITIS **
NO
ASK/ CHECK
INFECTION / PUS THROBBING PAIN ANY WHERE ?
YES
PUS / INFECTION **
NO
ASK/ CHECK
NECK RIGIDITY / CHANGE IN BEHAVIOUR ?
YES
MENINGITIS ENCEPHALITIS ***
NO
ASK/ CHECK
JOINT SWELLINGS ?
YES
RHEUAMATIC FEVER ***
NO
ASK/ CHECK
FEVER WITH CHILLS
YES
NO
CONTINUOUS FEVER/ RELATIVE BRADYCARDIA?
YES
ENTERIC FEVER ***
NO
ANY OTHER DISEASE***
THROAT PAIN THROAT CONGESTION? SWOLLEN TONSILLS ?
YES
PHARYNGITIS TONSILLITIS **
NO
ASK / CHECK
TACHYPNOEA ? CHEST PAIN ?
YES
PNEUMONIA ***
NO
ASK / CHECK
DRY COUGH ?
YES
BRONCHITIS ***
NO
Refer To Hospital / Doctor ***
Send To Hospital If Does Not Respond To treatment In 3 Days
Special Investigaton
POSITIVE FINDING IN X RAY CHEST and/or SPUTUM EXAM POSITIVE ?
TUBERCULOSIS***
NO
BLOOD EXAMINATION
PULMONARY EOSINOPHISIA **
Refer if no response to dec deworming, within one week
LYMPHADENITIS
FILARIASIS** FIRST PHASE
Start Treatment And Refe
NO
ASK/ CHECK
BURNING MICTURITION/ TURBIDITY FREQUENCY
URINARY TRACT INFECTION **
NO
MALARIA **
Refer If No Relif With Chloroquine In 2 Days

VACHAN

(Voluntary Association for Community Health And Nurture)
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Soc. Regn. No. Bom. 540/86/GBBSD ★ Pub. Trust Reg. No. F/11721 (Bom.) ★ FCRA Reg. No. 083780382

April 19, 1995

Dear friend,

What are Village Health Workers ? Are they community health educators? Assistants to other Health Professionals in villages ? or acting as 'doctors', diagnosing and treating some common ailments ? These were questions raised when we trained and supervised our villages based Health Workers (HWs) in Igatpuri Taluka of District Nasik, Maharastra. We based our training on 'the Training Manual 'Bharatvaidyak'.

We are happy that we have been able to do the study of the HWs' activities and their effects in the villages where they work since between 1989 and 1992. Center for Development Research and Documentation, Pune, an institution recognised for studying changes in villages by development institutions, decided to carry out this study.

We feel humbly that we were not able to trace such studies in other activities of training and the effect over the HWs'. We are also aware that our study is probably, the first of its kind and therefore has some imperfections. However, all of us are very happy that we tried to find out honestly as to what the HWs' have achieved.

So, please let us know as to how you feel about the study and its observations. We would be very happy to get your comments - nay, even your criticism - about the methodology of the study also.

Thanking you, in anticipation.

Yours,

(Dr.Dhruv Mankad)
DIRECTOR, VACHAN
NASIK.

(Dr.Sham Ashtekar)
BHARATVAIDYAK SANSTHA,
DINDORI, NASIK.

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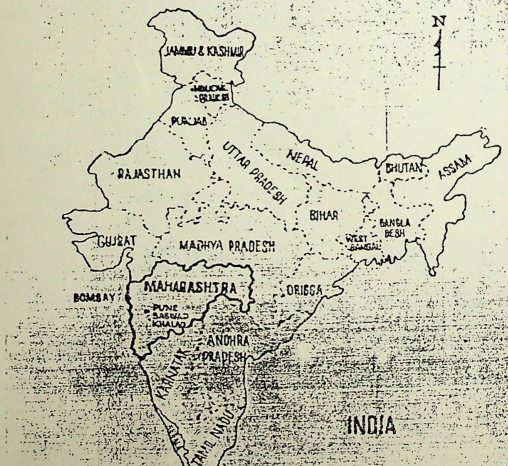


The Gram Gourav Pratishthan, Shetkarinagar-Khalad Taluka : Purandhar, District : Pune Maharashtra State (India)

PREAMBLE

The Gram Gourav Pratishthan, Naigaon, Taluka Purandhar, District Pune, has been working in the field of Rural Development since last 7-8 years. A number of persons from various walks of life have been visiting the work done by the Gram Gourav Pratishthan and have expressed deep satisfaction about the new approach put forth by the Gram Gourav Pratishthan, in Soil-Water-Manpower management and socio-economic development, particularly in drought-prone area of Purandhar Taluka. The work done by the Gram Gourav Pratishtharn is unique in the sense that without any publicity or show it has been working for the rural upliftment through a small group of devoted personnel. The work done so far may not be a dazzling performance; but it is a grass-root work for the people in the drought-prone area. The people had practically lost hopes of their betterment. But now they can face natural calamities. The people who visit the works of Gram Gourav Pratishthan are naturally curious to know how this transformation has been brought about. The same has been explained in this note.

Substantial areas of our country periodically experience drought leading to considerable loss of agricultural production and live stock wealth, besides causing untold misery to the people inhabiting these areas. In Maharashtra State, 7,000 villages in 87 Talukas or blocks in 12 districts have been identified as drought prone by a Fact Finding Committee appointed by the State Government in the year 1973 and Purandhar block of Pune District is one of them.

Large sums have been spent by the Government for providing relief after occurrence of droughts. Such expenditure has not helped to the required extent to solve the basic problem of increasing the productivity of these areas and thereby reducing the

severity of the impact of droughts on the human and cattle population. To develop these areas and thereby reduce the impact of the droughts is a challenging task.

Though the average rainfall of the Maharashtra state is 1070 mm, its pattern is not uniform, the average rainfall in the drought prone areas varies from 250 mm to 500 mm. Besides being inadequate it is very erratic, untimely and not assured every year. This area generally experiences drought once in three years and severe drought and acute scarcity once in ten years.

It is, therefore, not possible for people of this area, particularly for marginal and small farmers, to sustain on the rainfed agriculture. This has forced a large number of them to migrate to cities like Pune and Bombay, where conditions of life in the slums are hardly any better; or to become agricultural labourers or sharecroppers on the farms of rich farmers, in areas where there is assured water. There are about ten thousand people from Purandhar block alone working in various textile mills in Bombay.

These people are living in the Saitan Chowki area of Bombay. They live in filthy, cramped quarters popularly known as 'gala'. Each gala is approximately 12' × 15' (with a makeshift mezzanine floor) and around 30-40 people live in it in shifts of eight hours. In a gala each person is provided space measuring 2' × 5'2' to spread his mat and sleep.

ORIGIN OF GRAM GOURAV PRATISHTHAN

In Maharashtra 33 per cent of the total cultivable land is affected by drought. The population of the affected villages is about 150 lakhs, almost 1/3rd of the total population of the State. Only 12 per cent of the land is irrigated and only 15 per cent of the population is covered by it. Thus sectoral planning at the national level has resulted in socio-economic imbalances and patches of prosperity. It, therefore, poses a basic question of planning for the remaining 85 per cent of the population and their 88 per cent of dry land.

There was a severe drought and scarcity in 1971-72 in Purandhar block. There was no drinking water and fodder in a number of villages. The affected farmers not only sold their cattle at throw-away prices but also gifted them to those who could look after them, instead of witnessing their slow death due to starvation and thirst. They also started migrating to nearby towns and cities.

Shri V. B. Salunke, an engineer and the Managing Director of Accurate Engineering Company had an occasion to travel in the drought prone areas in Purandhar Taluka in the year 1972. The severity of drought, and the plight of the people moved him. He decided to fight famine and thought of finding out permanent measures to face recurring droughts.

In 1972-73 Shri Salunke approached the Collector of Pune for starting productive works in the scarcity area and helped the Government organisation in preparation of plans and estimates of percolation tanks costing Rs. 5 lakhs in about two weeks. One such percolation tank was constructed near the village Naigaon. Shri Salunke selected Naigaon for further experiments in rural development and started working earnestly on soil and water conservation measures.

In 1974, Mr. Salunke established a charitable trust called 'Gram Gourav Pratishthan' at Naigaon village in Purandhar taluka in Pune district, with the following aims and objectives :

1. To provide initially relief to the farmers of the Purandhar taluka by improving their economic conditions and to remove the cause of recurring droughts.
2. To create facilities to raise their social and economic conditions to attain welfare of the people in this Taluka.
3. To conduct research studies in socio-economic conditions, so that the urban interests will be linked with the process of creating integrated rural development.
4. To do all such lawful things as are conducive or incidental to the attainment of all the above aims and objectives.

He selected this village for two reasons : Firstly, it falls in the area which is worst afflicted during the droughts. Secondly, the Trust could get 16 hectares of land on lease to carry out experiments on his ideas of fighting the drought. The people of Naigaon gave to the Trust on a long lease 16 hectares of barren vacant land belonging to the village temple.

The intention behind carrying out the experiment was to find out a permanent solution to overcome the recurring drought. It was important to understand what risks were involved in the new approach before asking the villagers, whose existence was too precarious, to take any themselves.

The investigations revealed that the precipitation received during the south-west monsoon (between June nad September) in Naigaon usually fluctuated between 250 mm and 500 mm. The precipitation received from north-east monsoon (October-November) comes in heavy concentrated dosages. Most of it runs off in seasonal streams and rivers, in the absence of any water conservation work to retain it.

Experiment at Naigaon

The 16-hectare land is situated on micro-watershed. During the heavy rains a precipitation from about 200 acres run off from this watershed. To impound this water a percolation tank of the capacity of a million cubic feet of water was constructed within this land. While this was being constructed the fields were contour bunded, levelled, stones removed, ploughed and an open well dug at the base, on the downstream of the tank. A pump of 7.5 H. P. was installed at the well to lift the water up to a height of 40 ft, (say about 13m). The rising main of R. C. C. pipes about 300 metres was laid under ground by digging trenches to the distribution chambers.

For five long years from 1974 onwards Mr. Salunke and his wife Kalpana carried out experiments in water and soil conservation; designing of low-capital-cost community minor irrigation for eight months in a year (i. e. Lift Irrigation Schemes); possibilities of regenerating scarce water by building small check bunds on nullas below the main percolation tank, the theory that water in the tank above or used on the fields at higher elevations would percolate into the ground and raise the water table in lands at lower elevations; irrigation techniques and management; different cropping patterns, to see which would yield the optimum income and food; use of improved varieties of seeds; use of fertilizers and insecticides to improve agricultural production.

Out of the 16 hectares of land 9.60 hectares were brought under protective irrigation, 2.40 hectares under afforestation and the remaining 4 hectares came under the percolation tank, well, field bunds, tract and infrastructures.

When the above experiments were being carried out by the Trust on the barren land, the farmers of Naigaon village showed little interest. They were not only sceptical but were sure, that it was a futile exercise. But soon the experiment proved a success. When the villagers saw that 200 quintals of food grains were produced on 24 acres of land under experiment, whereas 40 acres of their own hardly produced ten quintals, they flocked around Mr. Salunke, requesting him to start similar schemes for them.

Besides producing record food grains, the farm has generated full time employment for fifteen people and supports fifteen animals. 4000 trees on the rocky rimland and 2000 fruit trees along field bunds are thriving. In addition, a three-quarter acre has been brought under Thomson Seedless grape vine. Some decades ago Purandhar Taluka was famous for horticulture. Today there are only a dozen of orchards that produce guavas and custered apples.

The one million cft. of water stored in a small percolation tank at Naigaon has proved quite sufficient to irrigate 2.40 hectares in kharif, 8.20 hectares in Rabi and 0.5 hectares in the summer, or about 11.00 hectares in all.

The trust has been supported, besides Mr. Salunke's industry, by individual philanthropists, other industries in Pune and Bombay and has received some donations from Novib, Netherlands; Church's Auxiliary for Social Action and Peoples Action for Developments (Maharashtra), all supporting voluntary rural development schemes.

Pani Panchayat (Water Council)

In 1980 Mr. Salunke decided that time had come to move forward for economic transformation of the villages. He first started with Naigaon by seeking the involvement of the poor farmers in establishing a series of community minor lift irrigation schemes, building upon the experience he had acquired with the experimental farm.

The various experiments carried out at the experimental farm have conclusively proved that, with proper methods of water conservation and careful distribution, half an acre of irrigated land would reasonably sustain one person. Thus, a family would have a maximum of 2½ acres of irrigated land. Here came one of the key ingredients in the rural transformation; the allocation of water not in proportion with land holdings but in proportion with the number of people in a family unit. This revolutionary concept is the key to altering the "refraction effect" of technological inputs.

Had Naigaon followed the usual tradtional practice of allocating water in proportion with land holdings, the result is easy to predict. Those with more land would have benefited more. Since water in a drought prone area is the key to a more productive agriculture, this advantage would have been multiplied down the line in terms of the ability to use other technological inputs to increase productvity. Hence, the usual pattern would have soon emerged in Naigaon, as it has in so many other well intentioned rural development schemes throughout the country.

With irrigation, small farms intensively cultivated, would achieve higher levels of productivity than larger farms less intensively cultivated. Therefore, the overall agricultural production in the village economy would increase more through the strategy of allocating water to a large number of small farmers rather than to a small number of large farmers.

Another key element in the plan was its financing. When the lift irrigation programme started in Naigaon, a formula called 20/40/40 was followed, that is, the beneficiaries put in 20 per cent of the capital cost, the Government another 40 per cent as subsidy and the Trust the remaining 40 per cent (Interest free loan, to be repaid in five years.) The Government gave subsidy from a programme called Minor irrigation extension programme 2 to 4 hectares, which was later with drawn in April 1981.

This was another revolutionary approach of the scheme. When the Government sets up irrigation system, the beneficiaries do not contribute anything towards the capital cost. They pay water charges and in most cases, the water is misused and benefits reach only to a select few.

It has been noticed from the expenditure incurred by the Government on major and medium irrigation projects that, it has spent on each beneficiary family anything from Rs. 8,000 to 16,000. On the other hand, the Government spends anything up to Rs. 30,000 on an individual in Bombay in order to provide civic facilities. Whereas, to provide community lift irrigation facility to an individual family it costs only Rs. 6,000 per hectare. In view of this the Government was requested to contribute 80 per cent of the capital cost as subsidy to such schemes. The 20 per cent contribution by the beneficiaries remained unchanged. But the proposal though accepted on paper, has not borne any fruits, on account of impracticable procedural requirements.

From the socio-economic consideration, the modalities of Pani Panchayat for sharing water, the scarcest resource in a drought prone area and the main input for increasing the agricultural production are, therefore, as follows.

1. Only group schemes are undertaken and not schemes for individuals. This fosters community spirit.
2. The sharing of water is on the basis of the number of members in the family and not in proportion with land holdings. Half an acre per capita, maximum of $2^1/_2$ acres. The land in excess of $2^1/_2$ acres is to remain under rain-fed condition. The principle of equity is thus incorporated and imbalance is avoided.
3. The rights of water do not go to the land, but to the individual beneficiaries for increasing their own agricultural income. If the land is sold, the rights of water revert to the Trust.
4. Beneficiaries share 20 per cent of the cost of the lift irrigation project, according to their share. Peoples' active participation and stakes are thus ensured. The balance of the 80 per cent will be given by the Trust, as an interest free loan to be repaid in five years, from the donations received. After the scheme becomes productive, the Government will be requested to reimburse the 80 per cent or part thereof, which may or may not be accepted.
5. The beneficiaries of the project themselves are to administer, and operate all its aspects. The leadership, capability and skills of the rural people are thus recognised and enhanced.
6. Crop such as sugarcane requiring more frequent watering and consequently more quantity of water is not to be grown. This will enable to bring more area of seasonal crops under protective irrigation. Thereby more number of people will benefit than otherwise.
7. The landless can also share water, so that they gain full employment in the village itself by becoming sharecroppers to farmers having more land. This will check their migration to cities.

IMPLEMENTATION OF LIFT IRRIGATION SCHEMES

Initially the farmers were required to be motivated to accept the norms of Pani Panchayat, because of the revolutionary ideas of

sharing water on per capita basis, i. e., ½ acre per person with a ceiling limit of 2½ acres and contribution of 20 per cent of the capital cost. These concepts were new to them. But, after a couple of schemes for the motivated groups were completed, the sceptical attitude of the people of Naigaon was soon dispelled and more and more groups of people came forward. Today there are eight schemes operative in Naigaon (See Annexure I).

Farmers of the surrounding villages soon came to know of the most enviable transformation that was taking place in Naigaon. They started visiting Gram Gourav Pratishthan and the completed schemes at Naigaon. Some of them started asking enthusiastically if such a scheme would be taken up for them also. By now all those who came to Gram Gourav Pratishthan had come to know of the norms of the Pratishthan, and therefore no more explaining of the norms or motivating them was required.

Today there are 36 schemes in hand for which Government subsidy was received. Out of these, 25 are operative (Jan., 83), 11 schemes though almost completed have not been commissioned for want of electric power connection. Two schemes are in various stages of completion. Even if they are completed they would not be commissioned as getting power connection would be a problem.

12 fresh schemes are taken in hand for which the Government subsidy is not available. Out of these, three are operational. The remaining are under various stages of completion and are going to meet the same fate as mentioned earlier in regards to power connection.

The details of the various schemes are enclosed. (Annexure 2).

SOCIO-ECONOMIC CHANGES

In each village dry land cultivators are in majority. On an average they constitute 90% per cent of the village population. A community lift irrigation scheme is beyond the means of a dry land farmer. As mentioned earlier, in the schemes of Pani Panchayat a beneficiary has to contribute 20 per cent of the capital cost of a project. He does not have the means to raise this amount. Therefore most of them take a share of water much less than they are entitled to.

Many of the beneficiaries have raised their contribution of 20 per cent with great sacrifice. They had to part with whatever little

valuable things they possessed. Some sold their cattle, some their sheep and goats, some utensils of the house and in a couple of cases they even sold a very meagre quantity of gold from the "Mangalsutra" (a necklace worn by the married woman whose husband is alive.), the only valuable possessed by the family.

It is just not possible for a family to subsist only on dry land agriculture. Many from Purandhar block had therefore to migrate to cities like Bombay and Pune. The Shepherd community leads a nomadic life, returning to their fields only during the monsoon to produce whatever little grain they could. This has been the pattern of life of the dry land farmers for generations.

These circumstances are both a curse and a blessing. A curse because of the hard conditions of life which the lack of water imposes, but a blessing in that most of the families have some land. In other words, the critical constraint in this drought prone area is not land but water.

The beneficiaries of the schemes comprise of all classes high and low. It has brought in a social change. They no more think in terms of individual gains but consider community or collective gains. There is an accommodating spirit in them. Some anti-social activities in which some people indulged have come to an end, as they have no idle time, because irrigation has given them full time occupation.

The beneficiary shepherds are no more leading a nomadic life. They have permanently settled on their lands. Those having their fields at distant places from their village are now living in their fields by constructing thatched huts, so that they can spend more time on agricultural work. This has forced the children to foot the distance to come to the village school, besides giving a helping hand to their parents in their spare time.

A couple of groups have even solved their drinking water problem, through the lift irrigation system. This has saved the wamenfolk a lot of time and labour, which they can now devote to work on the fields.

In one case (Babawadi) they have even gone in for community horticulture. In that scheme, one of the beneficiary has leased for Rs. 3,000/- his two acres of land to the group for grape orchards. The produce will be equitably shared by each individual of the group. These are some of the social transformations.

Economic achievements are equally striking. An acre of land which hardly produced 50 kg of grains is now producing 400 kg to 500 kg of food grains.

Prior to the commencement of the Lift Irrigation Schemes, it appeared that the people had lost all the hopes about improvements in their conditions and a feeling of helplessness had prevailed. But since the commencement of the schemes people have regained self-confidence. With assured supply of carefully rationed water, though only for eight months, the farmers have been able to raise fine crops of onions, cotton, vegetables, cereals and even fruit like grapes. This not only made a better life possible, but brought it within their reach.

As a sequel to the transformation, many farmers who had migrated to Bombay returned to Purandhar and are back on their farms. It may still be a trickle, but a process of 'reverse' migration has started. If Pani Panchayat schemes are set up with the support of the Government, the trickle can become a flood. The slum and pavement-dwellers who now defile the atmosphere in Bombay would once again become productive citizens.

Water, which is a critical input in increasing the agricultural production, is a scarce resource in a drought prone area. The available quantum of water can be optimised to benefit a large number of farmers, provided the principles of Pani Panchayat are followed.

Crop planning assumes great importance in economic uplift of the poor farmers in a drought prone area. The farmer has to strike a balance between cash crops and other crops. When it comes to cash crops, there is a tendency amongst the farmers to go in for sugarcane, when some source of assured water is available. But they fail to appreciate that comparatively it requires more water, generates less employment, derives less income and benefits less number of farmers. This may be seen from the enclosed sketches. (Annexure 3/1 to 3/4).

To give a general idea of the economic transformation that has taken place among the farmers, whose lift irrigation schemes are functional, we have chosen two schemes, namely, Pilanwadi, which has a perennial source of water and Babawadi at village Pisarve, which gets water only for eight months in a year. Their economic statistics are given in Annexure 4 & 5. It may thus be noticed

from these details that there is a great hope of fulfilling the aspirations of poor farmers through the schemes of Pani Panchayat.

MANAGEMENT OF THE SCHEMES

It is comparatively easy to start a community minor lift irrigation scheme. But it is very difficult to manage it after completion. There are a number of minor irrigation co-operative societies operative in Maharashtra. But unfortunately many of them have come to standstill, mainly because of their mismanagement.

The Trust has already taken over an obsolete scheme at Akola in Sangola tehsil of Solapur district, in which the Central Bank has already sunk more than Rs. 40 lakhs. The project has been made functional by the trust and is also being managed under its auspices. Similar requests have started coming in from some other obsolete co-operative society's lift irrigation schemes.

When Government subsidy under the defunct "Minor Irrigation Extention Programme 2-4 hectare" was granted, it was not laid down that each of these schemes should form a co-operative society. But now the Government insists on forming a co-operative society in case a subsidy from IRDP is to be availed. However, not much of subsidy from IRDP can be obtained as each block or taluka has been doled Rs. 6 lakhs to meet the requirement for its comprehensive development, which includes, beside minor irrigation schemes, dairy, afforestation; cottage industry, poultry, etc.

Pani Panchayat would like to administer these schemes itself, because the experience of the co-operative society is unsatisfactory. The wealthier and more important or influential members of the group get appointed to the key posts. The consequence is the usual "refraction effect" of magnifying economic and social disparities.

To provide management structure for each of these schemes, a manager or a group leader is elected by the beneficiaries of each scheme. A suitable 'Patkari' or a water distributor trained for the duties is appointed by Pani Panchayat. He is usually from a neighbouring village, not directly involved in the scheme itself. This person is paid a modest stipend of 200 rupees a month and assures day-to-day fair allocation of water to all its beneficiaries. In these bodies all the families participating in a particular scheme take part equally. Every Sunday group leaders participate in the

meet ng of Pani Panchayat. They in turn hold meetings of its members once a fortnight.

LAND-WATER-MANPOWER MANAGEMENT TRAINING CENTRE :

In order to ensure that the schemes of Pani Panchayat do not meet the fate of some of the co-operative lift irrigation societies, it has been decided to create a cadre of well trained extension workers from rural dropouts aged 15 to 20. It is intended to admit 30 students each year for a course of two years and they will be absorbed in the expanding programme of Pani Panchayat. The syllabus will include the following :

1) Use of modern science and technology to increase maximum agricultural production with minimum water.
2) Water and soil conservation.
3) Agro-engineering.
4) Lift irrigation schemes.
5) Water distribution.
6) Crop planning.
7) Crop diseases.
8) Use of fertilisers and insecticides.
9) Marketing of agricultural produce.
10) Storage.
11) Prevention of diseases among human beings and animals.
12) Horticulture.
13) Afforestation.
14) Maintenance of pumps and motors.
15) Keeping of accounts.

The Training centre besides training the extension workers will also run periodical short courses for the group leaders in management of the scheme and for the beneficiary farmers in all aspects of agricultural practices.

The establishment of the training centre is going to cost about Rs. 19 lakhs. It will be a residential centre.

LIMITATION

A voluntary agency working for the rural development, however dedicated it may be, cannot achieve much, unless it has got the backing of the Government. Unfortunately the Pani Panchayat lacks it. The efforts of Pani Panchayat in getting the "community minor lift irrigation scheme" established has been quite frustrating and enervating. Some of the limitations from which the programme of Pani Panchayat suffers are as under :

1. The Government subsidy is available to marginal farmers (less than 2 hectares) and small farmers (less than 4 hectares). A farmer in most parts of Maharashtra is a genuine small holder, but the land records (form 7/12) prepared long ago do not reflect the actual present position. Many a time the lands are in the name of the eldest member in the family, whereas in actual practice the lands have been divided amongst sons and grandsons.

The procedure laid down for updating the revenue records is so cumbersome and vexing that most of the poor farmers are perplexed to tread on that path. There is, therefore, need to evolve a simple and quick procedure in this respect.

2. In case digging of an open well or a bore well on Government land is involved, permission of the Revenue department is required. Similarly, for use of explosives to dig an open well, licence of the Home branch of the collector's office is required, without which the explosives cannot be procured. It is frustrating to obtain them. It takes months and months to complete these formalities and correspondingly the project is delayed.

3. For lifting water from reservoirs, the permission of the Irrigation department is required. Normally permissions to lift water is granted according to the total area under command of the project, lifting of water to the extent of 1% from the Reservoir, 5% between dam and pick up weir and 5% from the command area. In the case of M. I. Schemes the Irrigation Department expects that there should be no water left in the reservoirs at the end of March. But in actual practice there is abundance of water left, as possibly, it is not used to its limit. Under such circumstances, there is need to relax the rule. Even when legitimate permission is obtained, inordinate delays take place.

4. It is equally difficult to get electric power connection to the completed lift irrigation schemes. The M. S. E. B. applies a yardstick of revenue return for each scheme. That is, it must get a return of 20% on the capital investment. Otherwise it does not sanction a power connection. To improve the plight of the marginal and small farmers, this rule will also have to be relaxed.

Even where the condition has been met, it takes considerable time to get a power connection. There is a requirement not only to make a special allotment of funds for the provision of power connections to the schemes of Pani Panchayat, but also to provide them within three months from the date of application.

5. In the new 20-point production oriented programme announced by the Prime Minister, top priority has not only been given for increasing irrigation of dry land agriculture, but it has also been mentioned that it would be carried out on the principles of Pani Panchayat. It was also mentioned by the Government that additional funds are being allotted to IRDP so that the states which are effectively implementing the schemes should not be starved of funds. This being so, there is no reason why the beneficiaries availing lift irrigation schemes through Pani Panchayat should not get subsidy. To bring early relief to poor dry land farmers, the Government should make a separate allocation to the schemes undertaken on the principles of Pani Panchayat.

EXTENSION SERVICES

The agricultural production cannot be increased by provision of water alone unless inputs such as seeds, fertilizer and insecticides are used. Small farmers usually do not use fertilizers in correct quantum. They hardly use any insecticides, mainly because of financial inability. In order to make him use these ingredients, it was felt essential to start an extension service, which will provide him the above three ingredients at a comparatively cheaper rate and close to his farm. Three such shops have been opened. The response from the beneficiaries to avail this service has been very encouraging.

Most of the farmers have expressed a desire to open a co-operative bank of Pani Panchayat, in which they could deposit their money and in return could avail the benefit of extension services. They feel that otherwise the money earmarked for the inputs would be spent on other items of low priority. The proposal of formation of a bank is being examined.

FUTURE PLANS

Pani Panchayat aims at employment of 25,000 people who are struggling below the poverty line, in a period of ten years, in

Purandhar taluka. It has a proposal to cover all the hundred villages of the taluka by undertaking 600 community minor lift irrigation schemes, which will bring under protective irrigation a total mass of 25000 acres at an outlay of Rs. 10 crores. This target has been set on the basis of the results of the study of the ongoing schemes of Pani Panchayat. It is, therefore, not an unrealistic proposal.

Once the problem of the basic ingredient, that is, water is solved and the agricultural production of the beneficiaries is increased, other ancillary projects of rural development would be undertaken. There will be dairy, social forestry, horticulture, animal husbandry, health, adult education, marketing, etc.

When all the 50 projects taken in hand become productive, marketing of the produce on collective basis would be undertaken. It is proposed to sell the agricultural produce directly to large consumers such as canteens of industries in Pune.

As mentioned earlier, it is proposed to open a co-operative bank for the beneficiaries so that all the extension services would cater only for seeds, fertilisers and insecticides. Later, when the extension services provision becomes self-sufficient its scope will be enlarged into departmental stores, which will cater for all the needs of the farmers.

DEMANDS OF PANI PANCHAYAT

1. **Acceptance of the principles of Pani Panchayat by the Government.**

The Government should accept in principle their moral responsibility of making available irrigation facility of half an acre on per capita basis, to the maximum of two and half acres per family in consonance with the Government's family planning programme. This can be achieved by having community minor lift irrigation schemes on a large scale. Where the farmers avail of community minor lift irrigation schemes on the principles of Pani Panchayat, Government should provide 80 per cent of the capital outlay as a subsidy and the balance of the 20 per cent should come from the beneficiaries; crops requiring water more frequently such as sugarcane should be prohibited, water rights shall be to the individual family and not to the land brought under irrigation to avoid speculation.

2. **Provision of electric power connection**

It is not possible to start agricultural production on the completed schemes, unless electric power connection is provided within a reasonable time. The Maharashtra State Electricity Board should, therefore, provide such connections within three months from the date of application. The formula of revenue return should not be made applicable to community schemes. It is estimated that the Electricity Board will have to meet, on an average, approximately 20 per cent of the capital cost of a scheme. The Government should, therefore, make a separate provision for the schemes of Pani Panchayat or for any other voluntary agency engaged in a similar programme.

3. **Grant of 80 per cent subsidy**

Keeping in view the future plans of Pani Panchayat, the Government should sanction Rs. 50 lakhs (80 per cent) for 50 lift irrigation schemes each year. It is even accepted that the Government may carry out a comparative study of the programme of Pani Panchayat and then take a decision on the continuation of the aforesaid subsidy.

4. **Flow irrigation tanks vis a vis lift irrigation scheme**

The western part of Purandaar block gets a good rainfall, whereas the eastern part receives hardly 375 mm, as the area comes under rain shadow. In case a study of the rainfall and run off in the Purandhar block is carried out, it will reveal that there is still considerable scope to store water. Taking into consideration the large magnitude of future community lift irrigation schemes, the maximum number of water storage tanks should be constructed by the Government. It should, therefore, reconsider its policy of having flow irrigation watertanks. The flow irrigation schemes may also be run on the basis of $\frac{1}{3}$ acre per capita for social equity.

In Purandhar block average run-off from rain water is 820 lakhs CuM. Out of this, it is possible to utilise about 520 lakhs of CuM water for Lift Irrigation schemes, on equitable share basis. The rest can be made available by flow canal.

The condition of allowing to lift only one per cent of stored water directly from the irrigation tank may be relaxed and if the records show that the balance of water at the end of March is

sufficient to grant permissions to the extent of more than 10% such permissions may be granted.

According to the estimates of the Government about 500 lakhs of CuM of water is available under ground. Taking into consideration the availability of water underground and the run off, a master plan for all available supplies should be made. The Government should, therefore, direct the Irrigation Department to revise the Master Plans. The planning for the best utilisation of water wealth, during the next ten years, capital investment and gestation period, should be determined after taking into consideration the experience of the people.

5 **Re-charging of water tanks**

There is an estimated run off of about 5000 lakhs of CuM of water from Nira river, which is yet to be harnessed. At present this quantity is drained to the sea. For the utilisation of this water Government has set up 'Nira Watershed Development Board'. The board has planned on paper to make available 1500 lakhs of CuM of water for irrigating 11,800 hectares of the block, through traditional flow canal system. The project is going to cost approximately Rs. 12 crores. This is not going to solve the problem of even ten per cent of the people of Purandhar block. On the contrary, it will widen the disparities amongst the farmers. Instead of concentration of irrigation in a small patch, Government should consider diversion of this water into the neighbouring vallies. The conservation of water in projects of small magnitudes will benefit an area of 30,000 hectares on the basis of 20 hectares per 1 lakh CuM.

6. **Re-orientation of power supply**

At present 9 MW of electricity is being produced at Veer Dam and it is even possible to increase this capacity. By using this electricity, if 1000 lakhs of CuM of water is lifted to a maximum height of 100 metres to re-charge the various water storage tanks, by linking them, it will irrigate 20,000 hectares for eight months. If ten per cent of this area, i. e., 200 hectares are brought under horticulture, it will aid in minimising if not eradicating the drought conditions.

In case the above proposal is accepted by the Government, the beneficiary farmers are even prepared to bear 20

capital cost, that the Government would incur to lift run off water, as a 'Development cess'. And when the scheme is completed they are also prepared to defray the expenses that will be required to operate and maintain it, along with the electricity bills, under the guidance of Pani Panchayat.

7. Impact of the demands

In brief the benefits that would accrue from the above mentioned demands would be as follows.

1. In case 2000 lakhs of CuM of water is made available during the next 15 years in Purandhar block, 1250 CuM water per capita can be made available.

2. The total outlay at the current market rate would be Rs. 40 crores. That means a capital investment of Rs. 2500 per capita for a population of 1,60,000. It is much less than the amount spent by Government per capita in providing flow irrigation system through big and medium dams and in which there is no contribution of the beneficiaries.

3. Today per capita income from agricultural production is Rs. 400 per year, which will go up to Rs 12,000 and it will not only provide full time employment to all on their own fields, but also meet requirement of their needs.

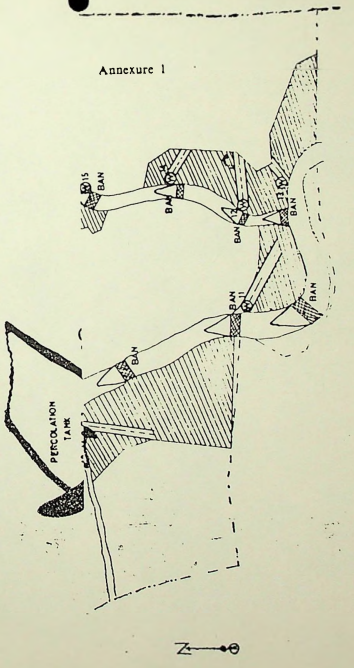
4. This will bring an end to drought relief, Government doles and bring the poor farmer above the poverty line.

Before we connect the river Ganga to the river Cauveri, let us first connect the river Nira to the river Karha, both in Purandhar block and bring an end to the poverty of this block.

Conclusion

Pani Panchayat is not just for irrigation and equitable distribution of water. It is a philosophy that can bring about a complete socio-economic change among the poor farmers. It has a tremendous potential for rural reconstruction and can prevent the migration of young men and women from rural areas to urban centres.

Annexure 1



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SEARCH

Society For Education, Action & Research in Community Health

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Ref. :
Date : 24th March 2004

Birth of a dream

A group of nearly thirty persons, as diverse as Satish Kumar, a Gandhian environmentalist from UK, Prof. Samadhong Rimpoche, the Prime Minister, Government of Tibet in exile, Shri Sidhdharaj Dhadhdha, Prof Thakurdas Bang, Shri. Amarnath bhai –senior Gandhians, Shri Rajendra Singh – welknown water activist, Prof. Sanjay MG of National Alliance of People's Movements and many of us spent the last three days of the year 2003 together in the Dandakaranya forest at Shodhagram, Gadchiroli (Maharashtra).

The group grappled with the difficult issue of exploring the links between Gandhi, Environment and Health, and also witnessed a concrete action- inauguration of a new training center at Shodhagram. The training center, named Arogya-Swarajya Sadhana Kendra (आरोग्य-स्वराज्य साधना केंद्र), aims to enable individuals, voluntary groups and communities towards 'Arogya- Swarajya'.

We are very pleased to send with this letter the report of the deliberations in the meeting. The future activities of the training center will need your involvement and inputs.

Satish Kumar has suggested that this training center be called Arogya Vidyapeeth- (Health University). We certainly dream that it will become a living university without walls, where individuals live and learn to work on themselves and with communities to build Arogya-Swarajya.

With love and friendship

Abhay and Rani Bang.

Attachment : - An year-end at Shodhagram.

To
D, CMF/TN
For comments if any

RN 21/4/04 CMF 22/4/04

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An year end at Shodhgram

Report of the meet on
Gandhi, Environment and Health
and
Birth of a new training center at *Shodhgram,* Gadchiroli.

Introduction

On 29th to 31st December 2003, coinciding with the inauguration of the new training center, 'Arogya Swarajya Sadhana Kendra'(आरोग्य - स्वराज्य साधना केंद्र),Sarva Seva Sangh and SEARCH called a meeting of senior Gandhians, social activists, environmentalists and the professionals from diverse fields such as health, science, music, philosophy and journalism to explore the links between Gandhi, Environment and Health. The venue was *Shodhgram,* the head quarter of SEARCH in the Gadchiroli district of Maharashtra.

Answers were sought to four questions, though the only end product actively sought was an increase in our understanding in four areas, namely, Green politics, the environment and spirituality, healthy individuals in healthy community, and a new training center at Shodhgram.

A list of the participants is attached.

A Buddhist Interpretation of Gandhi

Prof. Samadhong Rimpoche disagreed with Gandhi's deism but accepted his concept of truth. *Satya* is the uniting thread and society should be built on the base of *Satya,Ahimsa* and honest democracy. In order to proclaim truth, one must overcome the sense of helplessness and the desire to compromise. Social change cannot be quantified but people must change themselves for society. If society changes in ways one does not agree with, one can STEP OUT, one can express dissent accepting the hardships arising out of this dissent. Gandhi rejected modern society, modern science and technology. He believed science to be egotistical. We must proceed in the belief that nothing good can come of science.

Green Thinking

Satish Kumar outlined the course of the Green movements in the West, concentrating on three areas. Green politics, set off by Rachel Carson's "Silent Spring" and developed into the Green party in Germany (Die Gruenen) is now quite influential in German politics and has spilled over to many European countries and to America, formally or otherwise. The aspect of Green spirituality is detailed later. The aspect of Green living

centers on voluntary simplicity and "downsizing" (simplifying) of lifestyles. Complementary medicine, importance given to handicrafts, insistence on the use of local and organic products, are all aspects of the increasingly popular Green living.

Satish Kumar pointed out that Green politics has really taken root only in countries where proportional representation is practiced (Germany, France, Italy), and has remained diffuse elsewhere (UK, USA). He also mentioned people, their books and ideas that had influenced the Green movements. A short and partial list could be—Rachel Carson and "Silent Spring", D & D Meadows and "Limits to Growth", E. Goldsmith and "Blueprint for Survival", James Lovelock and GAIA, Fritjhof Capra, Brian Goodwin, Stephan Harding, Theodore Roszak, Gregory Bateson, Margaret Mead, Ivan Ilych, Lester Brown and eco-economics, Rupert Sheldrake etc.

Here and Now

After the exposition of Green ideas by Satish Kumar, considerable discussion took place about the present environmental situation, especially in India, and it's causes, though in a rather selective fashion. In outline, these inputs can be summarized thus—

Rajendra Singh told that the New Water Policy of the Government of India termed water as an "Asset" *(Sampatti)* and not as a Resource *(Samsadhan)*. He and others had objected to this strenuously, but to no effect. The *Sampatti* reference paves the way for selling rights to the utilization of water under BOOT (Build, Own, Operate and Transfer—one well-known objection to this tells how the 'transfer' can be delayed, leading to BOO!) contracts. The Contracts go mainly to a handful of multi-national corporations (MNCs hereafter), called the World Water Mafia by Rajendra Singh. He also observed that the Indian people do not see water as *Sampatti*, but as a *Samsadhan* to be shared and used conservatively. The number of *'Bepani'* (no water source) villages is increasing and the groundwater level is sinking rapidly. The river-linking project was mentioned and Rajendra Singh underlined its futility by citing examples of similar failed projects undertaken by the government in the past.

Meghana Gadgil described the erosion of sovereignty taking place all over the Third World (Some suggested using the word 'South' instead of 'Third World'). Huge surpluses of petro-dollars generated in the '70s got to the World Bank (WB) and loaned thence to the South countries. This investment, these loans, came with the condition that they be used for 'infrastructure development' and not for social programs. The loans were hard to repay and piled up exponentially. The International Monetary Fund (IMF) stepped in with 'structural adjustments', otherwise describable as re-loaning with added conditions. Other loans followed suit, enforcing further 'development' and further 'austerity measures' for social use of resources. The situation today is that even if wiser governments are elected, they will have no freedom beyond that dictated by the bankers. Thus the 'sovereignty' of the South governments is nominal—can one say, 'illusory'?

Discussions on this centered around whether this is a new phenomenon or old, the extent to which officials of the bankers, the MNCs and the South governments form a single group and if and how this could be countered.

Rahul Goswami saw the situation from three angles, each offering opportunities for counteraction. On the Production side, the MNCs are trying to eliminate all competition. The designs of the MNCs could be foiled by propagating the use of local produce — *Swadeshi*. The People side has seen the disappearance of trade unions, but the NGOs could generate anti-globalization attitudes. Perspectives could be modified by better handling of the new and desensitized media through a better understanding of the profile of the new media persons.

AROGYA-SWARAJYA

The aspect of healthy individuals in a healthy community was discussed by **Abhay Bang** before the main meeting began and also during the tour of Shodhgram. He described the concept of *Aarogya Swarajya* on the background of an increasingly expensive nature of curative medicine. He reported on heart disease and other illnesses and the feeling of alienation that results from the present erroneous lifestyle. The solution lay in a) developing models of health care which empower individuals and communities to become more autonomous about their health care needs, (One such model of community health care has been developed by SEARCH) and b) eliminating the lifestyle and thus the mismatch between the individual and the community. It is not merely replacing curative medicine, but the adoption of a holistic, connected lifestyle. Here, the path to health leads inescapably into spirituality.

Green Spirituality

Green spirituality was examined in various aspects. Satish Kumar told how Gandhi and Vinoba had united the world (Samsara), religion (Dharma) and spirituality (Adhyatma) in a seamless whole. They spoke of using spirituality to change oneself, so that the world appears in a new light. When Krishna gave Arjuna a glimpse of "vishvaroop" Arjuna too became "vishvaroop". If one does this, *'khud'* becomes *'khuda'* and *atma* becomes *paramatma*. It was through this unity being propagated that Gandhi and Vinoba made revolutionaries of ordinary Indians and also made spirituality into an instrument of revolution.

The relation between Man and Nature came in for examination in this light. The concept of all belonging to all was enunciated. Instead of the Cartesian "I am", it should be "I am, because You are", and this 'you' must be everything in nature, be it a tree or a river or a mountain. This leads to the ideas of Nature's rights, like the right of a river to flow undammed. Like 'belonging' the concept of trusteeship was also discussed. That a trustee is supposed to conserve and improve upon what is entrusted to him, is the starting point. The question of whether this will lead to cessation of some currently enjoyed rights came up, since sudden cessation of rights leads to conflict. Whether capitalism is going into a trusteeship mode was also discussed. With ownership diffused over numerous shareholders and actual management in the hands of professionals who were not owners, is capitalism a de facto trusteeship? Satish Kumar said that the concept of trusteeship comes out of bio-centric or earth-centric thinking instead of the current anthropocentric thinking. But to fully achieve this, we must cease to think of actions aimed at the survival

of the planet, but value nature in itself. This is the concept of Deep Ecology, or Green Spirituality.

The discussion about this went into many by-ways. One exploration was why the unity achieved by Gandhi and Vinoba was lost and how it could be regained. It was pointed out that many good workers today tended to become *mathadhipatis* so that they could not unite with other like-minded people. Satish Kumar suggested abandoning ego *(ahambhav)* by such people. He also said that if others did not acknowledge their *'adhipatya'*, it would collapse of its own accord.

Science

Another line considered was the damage done by science to the concept of spirituality. Descartes with his body-mind dichotomy, Newton with his insistence on quantification and Darwin with his survival of the fittest were considered to be the most damaging of scientists. However, it was pointed out that science itself had abandoned the Cartesian dichotomy and that Darwin never said "survival of the fittest,' nor meant it. Satish Kumar said that we were sitting on a branch that was being sawed through by science for the last 300 odd years. It was pointed out that we should look at the hand that wielded the saw. Satish Kumar said that capitalism led to individualism *(Vyaktivad)* and the answer was in holistic and postmodern science as also in Reverential Ecology. It was pointed out that science never gave values and also that it never claimed to. Satish Kumar said that traditions should be verifiable. Science must not be allowed to become a superstition or a God. Without spirituality, science can be enslaved and misused. Without science, religion and spirituality could become hidebound *(roodhivadi)*. Science today is paid for by the present commercialized paradigm. Scientists like Lovelock, working independently, are rare. The question shifted to how much science should be used.

Abhay Bang said that the problem with today's Gandhism was not too much science, but too little science, which was surprising considering how scientific in thought and action Gandhi himself was. Gandhi often used the term *Satyagrahi scientist* to describe how his disciples should be. The adoption of scientific temper and scientific point of view got support, but there were reservations about its methods. Abhay Bang said that, on the contrary the scientific methods had to be adopted too. Satish Kumar spoke of Reverential Ecology, but doubts were expressed whether reverence could coexist with science. It was observed that Movements had not been studied as experiments. **Sanjay MG** observed that this was probably because it could challenge some of our superstitions. This was strongly disagreed with. Abhay Bang remarked on the lack of improvement in the spinning wheel *charakha* after the Ambar model as an evidence of how little research went into our movements or work for an alternative society. On this **Sidhdharaj Dhadhdha** opined that the Ambar had distorted Gandhi's *charakha* by being made into factory equipment.

Strategies for today

The discussions began on a theoretical note and slowly moved towards likely courses of action. **Thakurdas Bang** said that the new commercialized attitudes could be fought through "note and vote" strategy. The products of the MNCs could be boycotted and better people could be voted in. Satish Kumar mentioned a book by Bodri Llare called 'Consumer Society', which detailed how we were subjected to identifying with a virtual reality, peopled by simulacra.

Rahul Goswami said that the media were no more a pillar of respectable society but simply a tool of post-industrial capitalism. He described how MNCs had corporate communications experts who dealt with the media and how these two groups coordinated their activities like a 'jugalbandi'. He advised getting to know the newer set of media persons in profile and to think of strategies to use in getting them to be useful to us. **Shri John** suggested starting our own electronic media. **Kumar Prashant** advised against running after the media and suggested that we should do things which make the media run after us. Satish Kumar said that we should reduce the stress on the purity in the same way that we accept the impurity of our body. He said that this would make it easier to get the media on our side. He suggested that our own media should have beauty in simplicity.

Abhay Bang said that with improved communications the world has become small. In this context, the idea of 'gram' or village needed reassessment. He also said that knowledge and information was the new power and that we should think of using them for our ends. There was some discussion about whether knowledge and information as power was a new phenomenon or old.

Prerana Rane described how corporations trained their own people using the group dynamics concept and the human engineering approach to the question of human resource development. She mentioned two books, 'Built to Last' and 'Good to Better', which discussed how to do this in a durable way. A clear focus, continuous reality checks and a constant revision of goals were the key. A continuous and dispassionate analysis of ourselves and of our external circumstances was necessary.

She pointed out that Abhay Bang's book about his heart attack had become very popular and that this interest in personal health could be used as one track, with ideas about holistic living forming the second. Enlisting the help of various groups like those who had taken voluntary retirement, the senior citizens etc was also discussed. Prerana Rane said that knowledge, skills, evaluating the strengths of our team of workers and leadership training are four areas on which the new training center can concentrate. Countering the misinformation and disinformation about Gandhi was also proposed as a collateral aim for the new training center at Shodhagram.

Aarogya Vidyapeeth

Satish Kumar suggested that the various Training Centers coming up all over India should combine in a network for greater efficacy. He suggested that this training center at Shodhagram could be seen as a Health University *(Arogya Vidyapeeth).* He also

suggested the creation of a directory of people working in various fields and various geographical locations.

The last session concentrated on the use to which the new training center should be put. Abhay Bang spoke about the outputs expected, the inputs needed, and the human engineering that should go into it.

Bhajans

A notable feature of the meeting was the start of each session. **Kalyani Deshmukh** enthralled the participants by exceptionally beautiful renderings of Bhajans at the start of each session. The selection was eclectic, covering Meera, Tulsi, Kabir, Tukaram ad other Indian Saint-Poets. These melodious beginnings helped set the mood for all the working sessions. Kalyani also participated actively in the sessions proper, thus ensuring that her next Bhajan would be in the apt mood.

Report by

Nanda Khare and Vidyagouri Khare.

List of the participants.

Shodhagram- 29-31st December' 03.

1 Mr.Satish kumar
Editor, Resurgence
U.K.

2 Prof. S. Rinpoche
Prime Minister
Cabinet of the Government
of Tibet in exile, Dharmashala.

3 Amarnath Bhai
President
Sarva Seva Sangh

4 Shri Sidharaj Dhhadhdha
Jaipur

5 Shri Thakurdas Bang
Sevagram.

6 Shri Rajendra Singh
Tarun Bharat Sangh
Alwar

7 Mr. Sanjay M.G.
National Alliance
of People's Movements,
Mumbai.

8 Shri M.B.Nisal
Secretary, Sevagram
Ashram Prastisthan

9 Smt Nalinee Nisal
Nagpur

10 Shri Kumar Prashant
Mumbai

11 Shri Avinash Kakde
Rashtriya Yuva Sangh

12 Shri Atmaram Saraogi
Kolkota

13 Shri S.S.Pandharipande
Nagpur

14 Smt D.S.Pandharipande
Nagpur.

15 Dr. Prerana Rane
Mumbai

16 Mr. Rahul Goswami
Journalist,
Singapore

17 Ms.Vibha Gupta
Center for Science of Villages
Wardha.

18 Meghana Gadgil
California, USA.

19 Dr.Kalyani Deshmukh
Musician
Nagpur .

20 Dr Avinash Saoji
Amravati.

21 Dr. John
India Peace Centre,
Nagpur.

22 Shri Nanda Khare
Editor
Nagpur.

23 Dr.Vidyagouri Khare,
Nagpur.

24 Dr.Abhay Bang
SEARCH
Gadchiroli.

25 Dr. Rani Bang
SEARCH
Gadchiroli.