Health Implications of Public Policy

Teaching Notes

Edited by
BASU GHOSH

Indian Institute of Management
Bangalore

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(Teaching Notes)

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Preface

The South East Asia Regional Symposium on Implications of Public Policy on Health Status and Quality of Life provided a significant forum and opportunity to public policy makers, planners and researchers to delve into issues of considerable importance to all developing countries in this region. It is well known that health status of our people is not determined by the health sector alone, and the policies and programmes of most other sectors do have a bearing on the health and quality of life of the people. This symposium explored clearer understanding of the public policy — health linkages, and enabled country representatives to identify leads for public policy making in their respective countries, as part of their strategy to march towards 'Health for All by the Year 2000'.

The Indian Institute of Management, Bangalore (IIM–B) collaborated with WHO in conducting this important symposium. As part of the preparatory work IIM–B developed, *inter alia*, six teaching cases for use during the symposium. This volume incorporates teaching notes and illustrative sets of questions on these cases.

It may be observed that the cases have been based entirely on secondary sources of data, and discussions with many professionals actively engaged in research in related areas, or administering public policies. We wish to put on record our gratitude to all of them, but we are constrained by space to mention everyone individually. Many institutions and Government departments have freely extended their infrastructural support to us for providing us the wealth of information based on which the modules have been prepared. We express our heartfelt thanks to all these organizations.

The academic work for preparation of the cases and teaching notes was shared by an indisciplinary team of faculty members: Agricultural policies (Dr Shyamal Roy and Dr Jagdish C. Bhatia), industrialization policies (Dr Ranajit Dhar and Dr Basu Ghosh), and urban policies (Dr Vinod K. Tewari and Dr Basu Ghosh) with Dr Basu Ghosh responsible for overall coordination and editing. The faculty team benefited immensely from close interactions with Dr Michael R. Reich, Director, Takemi Program in International Health, School of Public Health, Harvard University. We wish to express our thanks to Dr (Ms.) A. Hammad (SHS / ISC) of WHO–HQ for her interest and guidance. We are grateful to Dr U. Ko Ko, Regional Director, WHO–SEARO), Dr D.B. Bisht (Director of Programme Management, SEARO) and Dr Sonja Roesma (Regional Adviser — PHC, SEARO for their active collaboration and support. We are grateful to Dr K.R.S. Murthy, Director, Indian Institute of Management, Bangalore, for his active support and encouragement. Last but not the least, I wish to convey my appreciation and thanks to our efficient secretaries who ungrudgingly obliged us by typing and re-typing our numerous drafts and revisions.

Bangalore
February, 1991.

Dr BASU GHOSH

Introduction

This volume presents teaching notes and illustrative sets of questions on the cases developed by the IIM–B team for the symposium. The teaching notes are not for general distribution; only resource persons (or instructors) intending to use the cases in class room / seminar setting may have access to these notes.

Use of teaching cases as a medium for deliberations by senior managers and planners in governments is an innovative approach. Success of this approach requires careful preparation by the participants as well as by the resource persons. All resource persons should read the teaching cases first, before perusing these teaching notes. They should then read the list of questions for discussions, and ponder over their possible answers. Only after such introspection, the resource persons should begin going through the teaching notes prepared by the case writers.

The teaching notes provide a framework for in-depth case analysis, as perceived by the case writers to be desirable. However, the suggested analysis may not be the only way or the best way of doing it. Resource persons are expected to use their expertise in further sharpening the analytical rigour of case learning.

All resource persons should appreciate that case sessions are by the participants and for the participants, and a resource person's role is that of a moderator and a facilitator. To be able to discharge this role, a resource person is required to be thoroughly conversant with a case by studying and analysing the case all by himself. These teaching notes are intended to help the resource persons in doing that. It is hoped that these notes will be found useful in ensuring adequate academic preparation for using the cases in classroom/seminar setting.

Pesticide Use in Indian Agriculture

SUMMARY OF THE CASE

In India domestic production of foodgrains and other agricultural products have fallen short of demand. Production growth has barely kept pace with population growth. Hence there is a need for increasing domestic production. The technology available for achieving a breakthrough in production also involves fairly large dose of pesticide use in the production process. This, in turn, has implications for health. The Government recognizes the imperative of using pesticide for increasing domestic agricultural production. However it is, at the same time, concerned about the health effects. Hence a judicious use of pesticides is the main thrust of the Government policy. This is attempted to be achieved through the enactment of the Insecticides Act 1968 and various programmes aimed towards minimizing the need for pesticide use. Government policies have not made any significant impact so far on pesticide consumption of efficiency of its use. This is because of various hurdles in the way of implementation.

TEACHING OBJECTIVES

a. To recognize the need for use of pesticides in Indian agriculture, despite its potential health effects.

b. To examine the health impact of pesticides and put the issues in proper perspective.

c. To understand the formulation of Government policies aimed to mitigate the adverse impact of pesticide use on health.

d. To identify the constraints in the way of implementation of Government policies.

e. To evolve alternative policy options to enable a more efficient use of pesticides in agriculture such that any adverse health effects are minimized.

QUESTIONS FOR DISCUSSION

1. Why has pesticide come to assume so much importance in Agricultural growth in the case?
2. Evaluate the actual or potential health impact of pesticide.
3. What are the gaps in the Insecticide Act 1968?
4. What are the constraints in the implementation of the Act?
5. Based on the case, what do you see are the policy options open to the Government?
6. What new data are required for a better understanding of Agriculture-Pesticide-Health linkages?

This teaching note for Case 1.1 was prepared by Shyamal Roy, Indian Institute of Management, Bangalore. Funds for its preparation were provided by a grant from WHO.

KEY POINTS

It is important to emphasize that in food deficit developing countries like India, and given the technological options open to them, pesticides will be an important input in the production process. Any attempt to cut down production to reduce the use of pesticides, on balance, may have more serious impact on health and nutrition. What is, therefore, needed is a judicious use of pesticides.

It is also important to point out that while the presence of pesticide residues in food, human fat and atmosphere is clearly established, its exact impact on morbidity, mortality and productivity is not so clear.

This could be due to methodological problems in estimation, or it could be due to an incorrect assessment of ADI and MRL under Indian conditions; it could also be the case that the impact varies depending on the type of pesticide used or, it could well be the case that the entire issue has been exaggerated and overplayed.

However, Governments can not and should not take chances. As long as pesticide residues are present, there is always a possibility of its affecting health. To the credit of Government of India, it enacted the Insecticide Act, 1968 in the very first year when the HYV technology was introduced. Registration of pesticides for their health effect has been reasonably successful. Only 5 out of 19 types (Exhibit 4) can be considered extremely hazardous. Even their extent of use is not known. However, from Exhibit 5, it is also clear that the thrust of the "Act" has been more on controls and less on applicator safety / human exposure and monitoring activities, which are more fundamental to judicious use. This may have led to corruption and certain other problems which accompany controls. The need for interdisciplinary and inter-institutional coordination also needs to be brought to the fore. As far as new programmes are concerned, data are inadequate to make a firm statement on their performance but they do seem to hold out a great deal of hope, if properly implemented.

POLICY OPTIONS

Policy options and implications could be discussed along the following points.

a. It is important to generate more data on all aspects of health impact of different types of pesticides through cooperation of various agencies.

b. Farmers have to be trained about the judicious use of pesticides and a proper organizational set-up has to evolve.

c. Workers have to be safeguarded and proper safeguards suitable to Indian climate and socio-economic conditions have to be found.

d. The Government should explore the possibility of importing out of some 423 types in use in the world certain less harmful pesticides which may be more costly and formulate suitable policies to ensure that the farmers have means to access to those.

e. The Insecticide Act needs to focus more on monitoring and applicator safety aspects. Accordingly, it has to be suitably amended.

f. Government programmes should cover more crops and improved "agricultural practices" should receive greater emphasis.

g. The resource implications of the above policy options should be discussed to come out with a viable solution.

Narmada Valley Project

SUMMARY OF THE CASE

A large number of dams have been built all over the world. The environmentalists have expressed concern about the adverse effects of these dams and have questioned the economic viability of these projects. This has alerted many Governments and international funding agencies to the possible ecological and health consequence of these dams, and while granting approval for irrigation projects, environmental safeguards are insisted upon. The NVP is the largest river valley project in India. Its implementation was considerably delayed due to a number of controversies. The experience in the formulation of this project indicates the need for maximizing the benefits and mitigating the adverse ecological and health consequences through proper management. The planning, implementation and evaluation of large water resource management projects will be greatly facilitated if guidelines for the incorporation of health safeguards into irrigation projects are suitably drawn, the role of each concerned sector is adequately defined and methods to achieve effective intersectoral coordination are worked out.

TEACHING OBJECTIVES

1. To understand the reasons for taking up large irrigation projects like the Narmada Valley Project.
2. To assess the role of various agencies (Government, private, international) in the NVP planning process.
3. To recognize the major environmental effects (including health impact) and to assess the type of studies required to quantify and predict these consequences.
4. To understand the role of health sector in the planning process of a project like NVP and to recognize the importance of intersectoral cooperation in the planning, implementation and evaluation of large irrigation projects and assess the ways and means through which this cooperation could be effectively achieved.
5. To appreciate the importance of taking into account the environmental costs (including costs of preventing and treating diseases caused by irrigation projects) while assessing the economic viability of water resource management projects.
6. To appreciate the need and importance of incorporating adequate safeguards to mitigate adverse health consequences of NVP.
7. To review methodologies for assessing the health impact of irrigation projects.
8. To appreciate the problem of large populations displaced by NVP.
9. To suggest alternative strategies for the availability of water resources to improve food production for meeting needs of growing population.

This teaching note for Case I.2 was prepared by Jagdish C. Bhatia, Indian Institute of Management, Bangalore. Funds for its preparation were provided by a grant from WHO.

QUESTIONS FOR DISCUSSION

1. What are the main objectives of building large dams? What are the side effects of such dams? What steps should be taken to minimse the adverse consequences especially health effects?
2. What has been the role of health sector in the planning and implementation of large irrigation projects? How should it be ensured that the health sector provides sufficient inputs in the preparation of large irrigation projects?
3. What benefits and costs should be included while undertaking cost-benefit analysis of such projects?
4. What has been the role of international agencies in large irrigation projects?
5. What measures may be taken to ensure proper inter-sectoral coordination in the development of water resource management projects?
6. Are there any alternatives to building large dams for a developing country faced with the problem of feeding growing population?

KEY POINTS

I. Government objectives of building dams:
   - (i) Overall economic development and increase in net domestic product
   - (ii) Additional employment
   - (iii) Increase in irrigation facilities
   - (iv) Generation of hydro-electric power for domestic and industrial use
   - (v) Increased industrial production
   - (vi) Improvement in the general welfare of the people.

II. Adverse consequences of NVP:
   - (i) Resettlement problems of displaced persons
   - (ii) Effects on ecology
   - (iii) Increased incidence of certain diseases.

III. The irrigation projects increase the incidence of certain diseases such as malaria, filaria, schistosomiasis and other water-borne diseases. Health impacts of these projects have not however been adequately taken into account while planning the projects or for working out their economic feasibility. The concern of the environmentalists has also primarily been regarding the ecological aspects such as deforestation, flora and fauna, wildlife, earthquakes, and little attention has been given to health consequences.

IV. A health information system should be developed to collect base-line morbidity data in the command area and to routinely monitor the incidence of various diseases likely to be caused by irrigation projects. Resources required for this should be built into the project plan. Institutional mechanisms should be worked out to report information on health problems on a regular basis to the authorities entrusted with the responsibility of implementing and maintaining irrigation projects.

V. Since it is ultimately the responsibility of the health sector to take care of health of the people, they have to bear the brunt of preventing and treating the diseases caused by water impoundment schemes by stretching the meagre budgetary allocations. The engineering, agricultural and health aspects should be integrated and the personnel from these sectors should be actively involved in all aspects of project planning implementation.

VI. The sanctioning of many projects is delayed because environmental aspects are not built into the project proposals. This results in escalation of project costs and affects their economic viability.

VII. The environmental, particularly health costs, are difficult to quantify and have rarely been taken into consideration. These costs are important to justify the economic viability of large irrigation projects.

VIII. International agencies, particularly World Bank, because of pressure from environmentalists, are now exercising caution in sanctioning large irrigation projects and are insisting that environmental safeguards should be built into these projects.

IX. Intersectoral coordination in irrigation projects has so far been minimal. The adverse effects of dams should be identified and the governments should start appreciating the need for environmental considerations in the decision making process. Before according approvals for irrigation projects, the clearance of the Ministry of Environment should be mandatory. National Planning Commissions should give serious considerations to environmental aspects of development projects.

X. All alternatives such as lift irrigation, small irrigation projects, optimum dam height etc., should be seriously considered and cost benefit exercise should be systematically done before decision is taken to sanction new projects.

GENERAL OBSERVATIONS

Before any irrigation project is planned, implemented and operated, it is felt that a study should be made of the project's possible consequences to health of men and animals. This study should be comprehensive and efforts should be made to identify possible adverse effects on health. The study should also include a cost-benefit analysis of measures to prevent as well as control diseases caused by the irrigation project. The environmental measures and institutional mechanisms to safeguard the adverse health consequences of these projects should be particularly attended to. The importance of environmental factors in the transmission of water-borne disease should be given due recognition. In the planning of irrigation projects present day irrigation system designs are inadequate to deal with the health aspects of water engineering. It is necessary to achieve intersectoral coordination to combat adverse health effects. There is also a need to alert health planners to the possible impacts of irrigation projects, so that they can actively seek a role in the planning process.

Study of Occupational Health Hazards and Safety in Indian Industries

SUMMARY OF THE CASE

Developing countries like India suffer from the problems of a very low per capita income with highly skewed distribution of income and wealth, widespread poverty and unemployment, high cost of production, poor quality of products, and on top of all these a fast growing population.

Industrialization under the circumstances is viewed as a panacea for all these economic ills. Although direct effect of industrialization in terms of its capacity for income and employment generation is not very significant, its indirect effects of pump priming and assisting in the overall process of growth of the economy is highly significant.

However, side by side with this positive aspect of industrialization there is the negative aspect of health costs and danger to safety of the workers.

In a labour surplus economy as in India, workers put top priority to employment even at the risk of health hazards and unsafe working conditions. At the most they may be happy to receive any monetary compensation.

The employers who are already burdened with problems such as high costs, limited markets etc., tend to look upon any measures for prevention and cure of health hazards as an extra load. Any extra cost is likely to reduce their markets further.

It is only through legal measures that they are compelled to adopt suitable measures. In India, Factories Act, 1918, Workmen's Compensation Act, 1923, Employees' State Insurance Act, 1949, etc., have been enacted for this purpose. Provisions have been made to identify hazardous activities, occupational diseases, and appropriate punishments have also been prescribed.

The Department of Factories of every State are empowered to enforce various legal provisions. However, the success depends on availability of information, organizational strength of the implementing body and the Judiciary. Above all a genuine concern should be there for improving the quality of life of the workers. The Politicians, Bureaucrats, Factory Managers and the concerned professionals involved in research and investigations in this area have to necessarily play their respective roles.

TEACHING OBJECTIVES

Teaching objectives of the case on Occupational health hazards and safety are as under:

a) To understand the principal economic features and the process of industrializa-

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tion of the concerned country and provide qualitative and quantitative assessment of possible occupational health hazards.

b) Assess the role played by policy makers in controlling health hazards and the measure of their success.

c) Critically examine the implementation framework and its effectiveness.

d) Identify relevant constraints in policy planning and implementation and suggest methods of overcoming them where possible.

e) Assess the role of various research institutions in identifying and mitigating occupational health problems.

f) To provide an effective framework for evolving a national health policy for occupational health problems.

g) Identifying areas for further research in occupational health hazards and safety.

QUESTIONS FOR DISCUSSION

1. Assess the occupational health situation in the case.
2. Discuss the response of the policy-makers in tackling the occupational health situation.
3. Critically review the legislations regarding the occupational health situation.
4. Assess the problems of implementation of various legislations to tackle the occupational health situation.
5. Suggest broad policy guidelines for a national health policy relating to occupational health problems.
6. Identify the information gaps and suggest further research areas for the study of occupational health problems.

KEY POINTS

The issues are as follow:

1. There is a genuine need for changing the outlook towards cost of occupational health hazards and safety measures. It should not be viewed as a welfare measure but should be treated as an integral part of the cost of production of the item concerned.
2. Such health and safety costs relating to the production of semi-luxury and luxury items should be borne by the producers who usually pass them on to the consumers of these products, and for those relating to the essential items the costs should be borne by the Government.
3. All essential and basic need items should be made available on a top priority basis. This will go a long way in improving the health of the workers as they are presently suffering severely from poverty related diseases.
4. While labour-intensive methods can create more employment in industries such as Chemicals, where the incidence of health hazards are more, labour-intensive methods may be avoided.
5. In the strategy for geographical dispersal of industries which helps to reduce regional disparities adequate provision should be made to provide locally the necessary facilities for prevention and cure of likely health hazards and safety measures as a precondition for selecting the location.
6. Increased labour productivity should be given a prime consideration by avoiding overmanning as in most of the public sectors in India. Simultaneously efforts should be made to create employment in safer non-industrial activities for which tremendous scope exists in the developing countries. This will drastically reduce the number of people affected by various occupational diseases.

7. To reduce the cost of implementation and for achieving better effectiveness, the workers themselves should progressively constitute Health Committees to supervise implementation under the advice and guidance of concerned Government Departments and Professional Bodies.

8. Developing countries generally tend to spend less on promotional and preventive measures compared to expenditures on curative measures. This increases long-term costs. It will be helpful to prepare a National Health Policy and Plan in which promotion, prevention, and curative measures relating to the control of occupational health hazards form an integral part.

POLICY OPTIONS

1. Plan Objectives.

   Short term: To provide adequate curative services to workers who are already affected by various occupational diseases.

   Long term: To provide in an optimal manner promotional, preventive and curative services, including all basic needs to all workers by 2000AD.

2. Set location-specific targets separately for basic, intermediate, semi-luxury and luxury goods items for 2000 AD. Then break them up for the relevant Five-Year Plans and finally annual targets should be worked out for implementation.

3. An implementation planning framework should then be prepared. This will take into consideration the possibility of using the existing facilities with strengthening where necessary. In extreme cases only a new set-up may be thought of.

4. An effective monitoring framework with MIS should also form an integral part of this planning. Here again, the existing machinery with necessary strengthening should be utilized rather than creating an entirely new set-up.

5. Existing gaps in the legal provisions should be identified and appropriate measures taken.

6. Research will form an integral part of this plan. Need for future research in this area should be clearly identified, necessary funds should be provided, and research organizations should be identified for carrying out the needed research.

Toiling Children

SUMMARY OF THE CASE

Children are being used in some industries as their work force, and they have proved to be an inexpensive source of obedient manpower. Social scientists, social workers and health professionals have from time to time been expressing concern about the exploitative nature of child labour, and the effect of adverse working conditions and denial of educational and recreational opportunities on the health and quality of life of children. In response to this, the Government has enacted relevant legislations and announced policies governing participation of children in the labour force. Children working in several industries have suffered from physical and mental health problems, and have also been victims of industrial accidents. It is worth considering how far the policies evolved, the organizational arrangements made, and the managerial actions have been relevant from the objective of mitigating health consequences of using children as a factor of industrial production. In light of the discussions it is desirable to identify policy leads for formulation of suitable industrial action and social development strategies to benefit tomorrow's citizens.

TEACHING OBJECTIVES

A. To identify the underlying factors responsible for use of children as labour.

B. To assess quantitatively and qualitatively the seriousness of child labour as a health-related problem in India.

C. To recognize the known and plausible health consequences of using children as labour.

D. To review critically the evolution of child labour policy in India, especially from health perspectives.

E. To identify the constraints in restraining use of child labour.

F. To understand the problems in implementation of child labour policies.

G. To recommend strategies for easing health consequences of child labour participation.

QUESTIONS FOR DISCUSSION

1. Diagnose the problem of child labour in the case.
2. How serious is the health impact of children working in industry?
3. What are the gaps in the child labour laws, as far as these are intended to protect health and quality of life of children.
4. What are the constraints in enforcement of child labour legislation, as far as health effects are concerned?

This teaching note for Case II.2 was prepared by Basu Ghosh, Indian Institute of Management, Bangalore. Funds for its preparation were provided by a grant from WHO.

5. Learning from the case experience, what broad guidelines will you recommend for minimizing health effect of child labour in a developing country?

6. What new data are required to better our understanding of health-industry interaction in respect of working children?

KEY POINTS

1. India, which was primarily an agricultural economy, started industrializing only in the latter part of 19th century — which saw the advent of industrial revolution in India. The second world war boosted the pace of India's industrialization. The Second Five Year Plan marked further growth of Indian industries. Though India achieved reasonable progress in terms of increased industrial production and agricultural production, a large percentage (about 40%) of the people continue to live below the poverty line. Planned industrial growth was possible only in the organized sector, while the unorganized sector grew haphazardly. India's industrialization policy now aims to lay stress on small scale industry development.

2. Though India has been able to achieve one of the largest of stocks of scientific and technical manpower, bulk of the people (65%) continue to be illiterate. Development of educational infrastructure in the rural areas has not been given sufficient emphasis, save recently with the introduction of a New Education Policy.

3. Constraints in the way of eradication of child labour phenomena:

   i) Poverty of most families which supply child labour.

   ii) Adult unemployment among educated youth frustrating aspirations of families for improved quality of life.

   iii) High drop-out rate in schools, and feeling among parents that school drop-outs should work, otherwise the children will go astray.

   iv) Perception of entrepreneurs employing children that their enterprise will become uneconomic if they are to employ adults instead of children.

4. Constraints in enforcing child labour legislation:

   i) Non-cooperation of beneficiaries,

   ii) Lack of efforts on the part of trade unions,

   iii) Inadequate law enforcement machinery,

   iv) Manipulations by employers by way of deliberate concealment, mis-statement etc.

5. Constraints in efforts to mitigate health consequences of child labour:

   i) Inapplicability of laws in unorganized sector,

   ii) Lack of data on health status of working children (in different industries) vis-a-vis non-working children in comparable socio-economic status,

   iii) Inadequacy of health care facility to working children,

   iv) Ignorance of parents and children about health effects of their occupations, and

   v) Low priority assigned by employers to the health situation of the working children.

POLICY OPTIONS

i) Extension of coverage of legislation to children working in unoganized sector,

ii) Monitoring of health status of child workers employed in hazardous industries through periodic epidemiologic investigations,

iii) Provision of health care facility to child workers through suitable organizational arrangements,

iv) Involvement of voluntary organizations, through financial assistance and other inputs, in child development activities for working children,

v) Disincentives to child worker employing entrepreneurs,

vi) Welfare schemes for parents of working children,

vii) Measures to reduce drop-out of students from school,

viii) Vocational education for drop-outs from school,

ix) Income generation programmes for families who are likely to send their children to work,

x) Strengthening of law enforcement machinery, and

xi) Speedier disposal of law suits involving violations of Child Labour Act and other related acts,

xii) Research into occupational health risks of children.

Healthy Housing : Urban India

SUMMARY OF THE CASE

In India, as in most developing countries, while urbanization is taking place at a fast rate, the levels of various infrastructural facilities, such as housing, water supply and sanitation, and transport in urban areas have not been able to keep pace with the growth of urban population. Shelter, which is regarded as one of the basic needs for human life, is in extremely short supply in the urban areas in the country. The shortage in housing, together with inadequate amenities in a large proportion of existing dwelling units and highly deficient infrastructural facilities, is having a strong negative impact on the health status of urban inhabitants, particularly the urban poor.

The Government of India, since the beginning of the planning era, has been trying to mitigate the problem of housing shortage for the urban poor and middle class households through a number of government sponsored housing schemes. Recently, the government has developed a comprehensive national housing policy document which expounds the objectives, priorities and strategies for promoting a sustained development of housing in the country. There is a need to examine the various aspects of this newly formulated policy from the point of view of their suitability for tackling both the quantitative and the qualitative dimensions of urban housing. Even if it is assumed that the policy has been neatly formulated, its effective implementation would require taking into account the various constraints posed by inadequacy of resources, various urban legislations and other related policies and working out strategies to overcome them.

TEACHING OBJECTIVES

A. To assess the nature and extent of the housing problems in urban areas in developing countries, with particular reference to India.

B. To appreciate the relationship between housing and health of the urban population, particularly the urban poor.

C. To review the policies and the programmes designed to mitigate the adverse effects of the housing shortage.

D. To examine the recently formulated National Housing Policy (NHP) in regard to its suitability for tackling the quantitative as well as the qualitative dimensions of urban housing.

E. To suggest measures for improvements in the NHP and other related policies and programmes to achieve the objectives of the NHP.

QUESTIONS FOR DISCUSSION

1. What is your assessment of the living conditions in urban areas in developing countries and the consequent negative effects on the health of the urban

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This teaching note for Case III.1 was prepared by Vinod K. Tewari, Indian Institute of Management, Bangalore. Funds for its preparation were provided by a grant from WHO.

population?

2. What have been the deficiencies in the policies and programmes aimed at solving the housing problems discussed in this case?
3. Is the new National Housing Policy (NHP) described in the case suitable to tackle the problems associated with urban housing?
4. Does NHP effectively incorporate the principles suggested by WHO for developing a healthy habitat?
5. What action programmes would you suggest to achieve the objective of healthy housing for the urban poor in developing countries?
6. What are the other related policy areas that need to be looked into for ensuring effective implementation of the action programmes?

KEY POINTS

A. In India, the present backlog of housing needs in urban areas is about 7 million. More than 25 percent (40 million) of the urban inhabitants live in slums in highly deficient living conditions. Extreme over-crowing, dilapidated housing structures, absence of minimum basic amenities in the dwellings and lack of basic services in the residential localities are common features of living conditions in all large cities in the country.

B. The World Health Organisation in one of its publications on Health Implications of Housing has documented the impact of the structure, location, facilities, environment and uses of human shelter on the state of physical, mental and social well-being. The publication also outlines two sets of principles — one related to health needs and another related to health action — that need to be taken into consideration by the governments, communities and families for developing housing policies, standards and programmes as also the external and internal housing environment (WHO 1989; See Exhibits in the Case).

C. Although the urban policy guidelines developed by Government of India, from time to time, have continued to emphasize the importance of housing sector, the action programmes initiated, and the investments made have been so inadequate compared to the enormous size of the problem that they have only been able to meet a small fraction of the total urban housing shortage in the country. Also, enough attention has not been paid to improve access to other housing inputs such as land, finance, building materials and services. Further, there are several legal, institutional and administrative constraints which not only discourage the people from taking housing initiatives but also force them to neglect maintenance of the existing housing stock.

POLICY OPTIONS

A comprehensive approach to a solution of the present crisis in the housing sector should consist of the following:

1. Effective State intervention in the supply of land to ensure availability of land in adequate quantity at the right time and at reasonable price.
2. Direct government investment in land development for providing infrastructural facilities.
3. Improving access to housing finance by strengthening both formal and informal housing finance systems. This can be achieved by taking suitable measures to provide a larger flow of resources for housing and also by encouraging household savings for housing purposes.
4. Promoting the setting up of industries for manufacture of building materials and centres for their distribution and also the use of low-cost, locally available building materials.
5. Rationalizing the various acts such as Town Planning Act, Municipal Corpora-

tion Act, Urban Land Ceiling and Regulation Act, Land Reforms Act, Land Revenue Act, Rent Control Act, Land Acquisition Act, Development Authority Act, Slum Improvement and Clearance Act, Building Bye-laws, Apartment Ownership Legislation, which directly affect the housing market.

6. Strengthening the existing programmes aimed at improving the living conditions of the urban poor, such as 'Sites and Services' projects, slum improvement, urban community development projects.

7. Conserving the existing housing stock through appropriate measures such as by providing finances for repairs of old houses.

8. Promoting rental housing market by encouraging investment in housing meant for rental purpose and by suitably modifying the Rent Control Acts.

9. Promoting housing activities through the Co-operative Sector.

Slums in India

SUMMARY OF THE CASE

Urbanization, whether caused by industrialization or neglect of rural economy, has led to the birth and proliferation of slums in India. Living conditions and quality of environment in slums have invariably been associated with adverse health effects and deterioration of quality of life in and around slums. Though the phenomenon of slum formation is yet to be completely understood, in view of its inherent complexity in terms of social physical and economic dimensions, the government has responded to the problem by a variety of public policies and schemes over the last four decades. How far have these policies been effective in checking the growth of slum or arresting further deterioration in the health and quality of life of slum dwellers? There is a pressing need for developing a comprehensive, perhaps segmented, policy for tackling the slum problem in India, which should consider the physical, social, economic and political constraints operating in urban India, rural India from where the people migrate to shanty towns, and the diversity of India's states at different stages of economic and social development.

TEACHING OBJECTIVES

A. To identify the underlying factors responsible for slum formation.

B. To assess the seriousness of slums as a health related problem in India.

C. To ascertain the health consequences of living in the slums, and proliferation of slums.

D. To review the policies and programmes evolved for solving the slum problem, particularly from health effects consideration.

E. To recognize the constraints in checking growth of urban slums.

F. To understand the problems in implementation of policies on slums.

G. To recommend strategies for easing health consequences of continuing existence of, and further formation of slums in urban India.

QUESTIONS FOR DISCUSSION

1. Assess the size, growth and complexity of India's slum problem, in the case. What are the health consequences of living in slums? What does this imply in terms of health policies?

2. Examine the Hyderabad Experience in Environmental Improvement of Slums. What were the innovations in this project? Will you consider this as a successful experience given the objective of the project?

3. (a) Analyse policies on: (i) Slum Cearnance and (ii) Environmental Improvement of Slums using the WHO Health Principles of Housing. (b) How far have these

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policies been effective in resolving the slum problem, and in reducing health consequences?

4. Should Government decide to adopt 'Slum Upgradation Programme' as a policy, what will you recommend as far as health aspects are concerned?

5. Examine the provisions in 'National Policy on Housing' in regard to slums, and recommend amendments (including additions/deletions/elaborations) in the light of information provided in the case (assuming the representative nature of these), for (a) solving the slum problem, and (b) reducing the adverse health consequences of slums.

6. What are the likely constraints in implementing your recommendations in (5) above? What do you suggest to minimise the limitations posed by these constraints?

KEY POINTS

A. India has 23.3 percent of her population living in urban areas. there are 3,245 towns in India, of which 216 are class I cities (i.e. cities with population of 100,000 and above).

The class I cities comprise only 6.6 percent of the urban population. About 27 percent of the urban population live in metropolitan cities (i.e. cities with population 1 million +). Urban population in India has grown by 49.2 million during 1971- 81, of these 34.2 million have been added to Class I cities alone. In at least 4 of India's metro cities over 10,000 persons live per sq.km.

B. On the whole 18.8 percent of the population live in slums, in metro cities 30.8 percent live in slums as per the 1981 census.

C. Living conditions in the slums are characterized by inadequate per capita space (often less than 25 sq.ft.), low ceilings (sometimes less than 4 ft.), poor ventilation, insanitary surroundings, non-availability of potable water and latrine/bath facility.

D. Health problems in the slums are mostly infective and parasitic in nature, other preventable communicable diseases and malnutrition. Special health facilities for slum dwellers have been initiated in some cities only in the 1980's; there is need to step up primary health care programmes among slum population.

F. Deficiencies in policies on slums

—— Inadequacies in policy on population distribution, regional development, urbanization, etc.

—— Lack of clear policy emphasis on prevention of slums,

—— Non-specificity in regard to health problems in slums,

—— Inability of taking into account the multiplicity of social, physical and economic factors responsible for birth and proliferation of slums,

—— No efforts to help generation of income of slum dwellers,

—— Failure to recognize the potentials for evolving a comprehensive package of segmented policies and programmes based on a typology of slums.

G. Deficiencies in implementation of policies and programmes:

—— Lack of coordination among various implementing agencies (including health authorities).

—— Failure to achieve community participation.

—— Inability to evolve schemes appropriate to different socio- economic scenarios.

—— Organizational inadequacies, rigidities, non-responsiveness.

—— Failure to maintain facilities created, sometimes due to personnel problems, often on account of separate funds allocation for maintenance.

—— Inadequate efforts in health education.

—— Failure to provide continuous water supply, sewerage and other services.

H. Constraints in policy and programme implementation.

—— Poverty of slum residents.

—— Unwillingness of slum residents to move out, or to cooperate in other ways to improve their health and quality of life. (fatalism, resignation, despair, fear psychosis).

—— vested interests opposed to continuation of slums in present sites, even if improved,

—— Distance of resettlement colonies from place of work,

—— Inadequacy of resources.

—— Misuse of facilities by slum dwellers, selling of acquired properties, etc.

POLICY OPTIONS

Recommended guidelines for future policy directions:

General

1. Consider slum problem as a socio-economic problem, not merely an urbanization or a physical problem, and develop segmented policies and programmes to

—— prevent births of new slums, and

—— reduce growth of population in existing slums.

2. Embark on Slum Upgradation Programmes in a significant manner, where applicable, based on considerations of

—— community participation in planning, monitoring and implementing programmes,

—— financial resource availability and pricing policy,

—— outside technical support needed,

—— choice of slums for upgradation,

—— in-house and environmental facilities required,

- —— ownership of land/housing to be passed on to residents,
- —— considerations of cost recovery based on paying capacity of residents,
- —— credits for house building, and institutions to provide these,
- —— implementation and monitoring of programmes.

3. While undertaking environmental improvement in slums, consider ways and means of improving social and economic situation of slum residents through:
   - —— adult education,
   - —— vocational training,
   - —— counselling for more responsible living.
4. Consider legislations to ensure that housing is provided to workers by industrial establishments and most other employers.
5. Explore possibilities of private sector investment, and roles of voluntary organizations in specific programmes on slums.
6. Consider possibilities of greater allocation of public resources for housing the poor (both in urban and rural areas), and channelizing these through housing banks and other financial institutions on flexible liberal terms.
7. Support all self-help programmes initiated by the urban poor and rural poor.
8. Attempt greater coordination of efforts through appropriate organizational mechanisms.
9. Explore possibilities of improving agricultural economy, and strengthening agro-based industries in the villages close to cities.
10. Strengthen functional linkage of small and medium towns with villages surrounding these.
11. Attempt simplification of administrative procedures, and educate slum residents about available options and how to avail of these.
12. Try to create economic opportunities in and around resettlement colonies.

Health Specific

1. Re-orient government's urban health care system based on concept of 'primary health care' and extend these to all slum areas, through provisions of the Krishnan Committee recommendations.
2. Mount massive health education efforts specifically for slum residents.
3. Consider innovations in extending toilets and baths such as 'Sulabh Sauchalayas', and emphasize environmental sanitation in all urban renewal and resettlement programmes.
4. Strengthen coverage of Universal Programme on Immunization (UPI/EPI) through special campaigns.
5. Emphasize child nutrition and health, and promote these through innovative programmes such as ICDS.
6. Monitor slum health status through periodic community morbidity and mortality surveys, and specific epidemiologic investigations.

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