

THE ROLE OF NGOS IN IMPROVING SHELTER FOR THE POOR

A Critical Analysis of Case Studies from India

by

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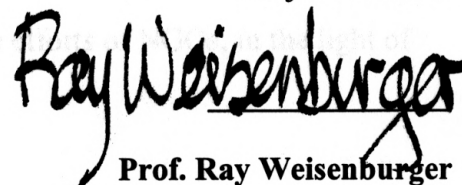
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ABSTRACT

The governments of developing countries have struggled to make decent shelter available to the poor. It is a gargantuan challenge because of the enormity and complexity of the problem. Huge populations, rapid rates of population growth, constant rural to urban migration, and very low per-capita incomes cause the mushrooming of slums in the urban areas. Having realized the futility in trying to remove slums, Third World countries, under pressure from international development agencies like the World Bank, turned their attention to slum resettlement and/or slum upgrading. It is in the pursuance of such policies that the non-governmental organizations (NGOs) came into prominence. They have established themselves to be a crucial and inseparable part of shelter delivery systems for the poor in the Third World. Aside from providing better living conditions, they deal with social issues like education, health, employment, and justice for the poor, thereby contributing to the overall development of a city or a region.

Due to changing political and economic atmospheres in most developing countries, today there exist opportunities for NGOs to play a more far-reaching role in addressing the case of shelter for the poor. Several ingenious solutions to shelter related problems were implemented in India during the last decade, the contribution of NGOs in which has been considerable, if not paramount. This report looks at different kinds of NGO involvement in improving living conditions of squatters in India by analyzing case studies. The analysis of case studies will provide an appreciation for NGO activities and a clearer vision about ways to increase the effectiveness of the efforts of NGOs, in the light of decentralization and economic liberalization.

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limited life expectancy resources of the land. Most of the population of the world lives in the Third World or the developing nations, and it was such country which is home to over half the people of the world of humanity. For most developing nations India is a very rapidly urbanizing country. Table 1.1 shows the growth of urban population in India. According to the United Nations Population Division report cited World Development Report, 1992, the world's urban population is currently growing at four times the rate of the rural population. Between 1980 and 2025, the number of people living in urban areas is projected to double to more than 5 billion, if it does, then almost two-thirds of the world's population will be living in towns and cities. An estimated 90 percent of the increase will occur in developing countries (World Development Report, 1992). However, unlike many other developing countries, India is slightly different because it is not characteristic of urban primacy and has numerous urban centers or secondary cities.

According to Meade (1977), the term 'developing countries' encompasses all Third World countries and it is used as synonym for the 'Third World' or 'that group of states loosely labeled 'underdeveloped' which account about two-thirds of the world's population. Geographically it includes virtually all the countries of Africa, the Middle East, Asia and Latin America and some 'developed' nations such as South Africa, Israel and Japan. (It also excludes) the Communist countries of China, North Vietnam, North Korea and Cuba for their problems of development are being tackled in a different manner than that occurring in the non-Communist Third World nations. A preferable neutral term for the 'Third World' is 'developing countries' from the capitalist developed world or the Communist world."

The demographic, economic, social and political development of major cities over all states within an urban system urban primacy is very evident in many African countries and some Asian countries. In Malawi, for example, Blantyre is nearly 1.5 times bigger than the second largest city and houses more than three-quarters of the country's total urban population.

CHAPTER 1

INTRODUCTION

1.1 Background

The population of the world today is past the six billion mark. This is an ominous threat to the very survivability of humankind considering the severe stress that it imposes on the limited life-sustaining resources of the earth. Most of the population of the world lives in the Third World or the developing nations.¹ India is one such country which is home to over one billion people or one-sixth of humanity. Like most developing nations, India is a very rapidly urbanizing country (Table 1.1 shows the growth of urban population in India). According to the United Nations Population Division report titled *World Population Prospects 1950-2050*, the world's urban population is currently growing at four times the rate of the rural population. Between 1990 and 2025, the number of people living in urban areas is projected to double to more than 5 billion; if it does, then almost two-thirds of the world's population will be living in towns and cities. An estimated 90 percent of the increase will occur in developing countries (World Resources 1998). However, unlike many other developing countries, India is slightly different because it is not characteristic of *urban primacy*² and has numerous urban centers as compared to one

¹ According to McGee (1971 10) The terms *developing countries*, *underdeveloped*, and Third World countries tend to be used as synonyms. McGee defined 'Third World' as: "that group of nations frequently labelled 'underdeveloped' which contains almost two-thirds of the world's population. Geographically it includes virtually all the countries of Africa, the Middle East, Asia and Latin America and omits 'developed' nations such as South Africa, Israel and Japan. [It also excludes] the Communist countries of China, North Vietnam, North Korea and Cuba for their problems of development are being tackled in a different manner from that occurring in the non-communist Third World nations....A politically neutral term, the 'Third World'....distinguishes its countries from the capitalist developed world or the Communist world."

² The demographic, economic, social and political dominance of one or two cities over all others within an urban system. Urban primacy is very evident in many African countries and some Asian countries. In Thailand, for example, Bangkok is nearly fifty times bigger than the second largest city and houses more than three-quarters of the country's total urban population.

or two “primate” cities in many countries of Africa, Latin America and Asia (Table 1.2 shows the population of the major urban centers of India).

Table 1.1 Expansion of urban population in India

Year	Urban population (million)	Percentage of urban to total population
1901	29.9	10.8
1931	33.5	12.0
1951	62.4	17.3
1971	109.1	19.9
1981	159.5	23.3
1991	217.6	25.7
2001	306.9	30.5

Source: Ministry of Urban Development, Government of India, from *MATURE Sub-Programme draft II* (Programme Support Document prepared by the Department of Science and Technology: Programme for the Government of India, United Nations Development Programme).

Table 1.2 Cities over one million

Rank	City	Population (in million)	
		1951	1991
1	Bombay (Mumbai)	2.97	12.57
2	Calcutta (Kolkata)	4.67	10.92
3	Delhi	1.44	8.38
4	Madras (Chennai)	1.54	5.36
5	Hyderabad	1.13	4.28
6	Bangalore	0.79	4.09
7	Ahmedabad	0.88	3.3
8	Pune	0.61	2.49
9	Kanpur	0.71	2.11
Other cities with over a million: Nagpur, Lucknow, Surat, Jaipur, Kochi, Coimbatore, Baroda (Vadodara), Indore, Patna, Madurai, Visakhapatnam, Varanasi, Ludhiana			

Source: Ministry of Urban Development, Government of India, from *MATURE Sub-Programme draft II*.

Stress on the environment aside, one of the main problems that has accompanied the growth of urban centers in the developing countries is the growth of squatter settlements or slums³ and the appalling standards of housing therein. High rates of population increase, constant rural to urban migration, and extremely low per capita incomes

³ Areas with deteriorated housing, inadequate community services, and poor people have often been called slums. The word *slum* with its negative connotation is not an appropriate description for many low-quality housing areas. According to Palmer and Patton (1998 4), “much of the housing in developing countries is built outside the formal private and public housing production systems by the owners themselves, often with the assistance of family and friends and with various amounts of hired labor. In some instances this development takes place on an appropriated land and is called squatter housing or illegal development.”

contribute to enervate the already deplorable living conditions of large segments of the populations of these countries. Many urban dwellers lack adequate protection from rain and flooding, from heat and cold. Their health, and indeed their life, is threatened by contaminated water and inadequate sanitation. Still, many experience hunger and malnutrition as even more immediate problems (Gugler 1997, 261). In fact, according to an estimate, in 1990, more than 600 million people in urban centers dwelled in life-threatening or unhealthy housing conditions, most of which lacked potable water, sanitation facilities, and drainage (Hardoy and Satterthwaite 1997, 265).

Shelter absorbs a major part of the budget of most urban dwellers. Provision of shelter also consumes a large share of national investment. Urban housing and the related services incur a lot of maintenance costs, which squeeze the available public resources. Due to the lack of adequate urban planning, or due to improper implementation in these countries, the environmental consequences of the growing urban agglomerations are often overlooked, which can have far-reaching implications (Gugler 1997, 261). This is true for India too. Squatting outpaces the search for its solutions in the Third World. A major flaw in the planning policies of developing nations is that they ape western models – a vestige of colonial rule. Developing countries need to rethink their own policies – sensitive to their situation and needs. In the 1960s, people such as John F.C Turner advocated, or rather revived, the self-help model of housing for the poor. Thereafter, almost all developing countries have experimented with self-help to varying degrees of success. Political systems, cultural mores, dependence on external aid and alacrity in executing policies determine the level of success attained. In India, the upshot of

experimenting with various policies has established one thing definitively – that non-governmental organizations (NGOs)⁴ or non-profit organizations (NPOs) are crucial players in ameliorating the living standards of squatter settlements. The aim to own a house is the ultimate goal for most people. Ironically, yet sadly, it is almost impossible for the poor to aspire for a decent, legal shelter, especially through the private market. It is in this aspect that NGOs have emerged to be instrumental in upgrading living standards through access to housing or by simply improving the quality of life in existing settlements.

NGOs today are involved in almost all aspects of development. They are advocates and providers of environmental consciousness and protection, health, education, women's rights and empowerment, children's rights, rehabilitation of social outcasts, employment for the poor, vocational training, and housing for the poor to name a few. The probable reason for the success of NGO involvement in development issues is often attributed to the facts that they are non-profit seeking agencies; they are independent of bureaucratic tangles; and because they usually operate at the micro-level making coordination and concentration on projects more effective. However, even they face the hurdle of winning the trust and cooperation of the people that they want to help, especially in housing related activities. This is because these are people who live in constant fear and suspicion of eviction or deprivation of their holdings, given the illegal nature of their occupation of land. In addition, due to the usually apathetic or even hostile attitude of the governments

⁴ NGOs can be defined as formalized institutions i.e. "sets of structured relationships with legally determined boundaries and functions" that are vendors of services and goods considered mostly to be the responsibility of public agencies. NGOs have been appreciated for their ability to respond to locally perceived needs using innovative and flexible methodologies.

towards squatters, these people are definitely wary, at least in the beginning, of governmental involvement in development programs and projects aimed at the improvement of their living conditions. Nevertheless, it is strong political will and governmental support for such programs coupled with the efforts of NGOs that help in expediting the execution of projects and in their eventual success.

1.2 Research Intent

In the Third World, governments' idea about good currency in housing policy for the poor, beginning in the 1960s, has changed from public housing, to self-help, to sites and services, to municipal capacity building, to slum-upgradation, and in the last decade or so, to the involvement of the private sector. Traditionally, the private sector has stayed away from housing for the low-income groups because of insignificant returns, and neither did the governments encourage its involvement due to the unaffordability of its products. Generally, the only private sector involvement has been limited to the contractor or small-time developer, whose role was limited to construction. This was also due to the atmosphere of excessive control and interference by the governments in all development related activity. Thus, the only players in the realm of housing for the poor were government agencies, international development agencies, and NGOs. The role of the NGOs is substantial due to several reasons. They have been associated more with employment generation, women's empowerment, provision of water-supply and health (all of which are essential for the success of housing), than in the actual housing delivery process. However, things are changing because of globalization and the liberalization of the Indian economy which has opened the doors to foreign private

investment in a big way. This has created new opportunities and possibilities of private sector and NGO involvement in development projects. Lately in India, there have been instances where NGOs have played very significant roles in the delivery of housing and facilities connected to housing. Private sector involvement in the housing game is relatively new, though it has been involved in the development of services (water, sewer, etc.) for housing projects, through the NGOs. That NGOs are an essential link, in the struggle for providing better housing, and in taking governmental initiatives to the poorest of the poor in the developing countries, is an unequivocally accepted fact today.

This report will analyze the expansion and diversity in the roles undertaken by NGOs in the field of housing provision and amelioration of living standards of squatter settlements in India. It aims to establish the current status of NGOs as players in the housing game and will attempt to predict the desirable shifts in posture required of the NGOs, the central and local governments, and also the private sector to maximize community participation in achieving the desired goal of providing decent shelter to all. In the past decade or so, there have been several laudable efforts by NGOs in India that highlight innovative solutions in overcoming obstacles, that are generally considered to be insurmountable, in planning and implementation of programs. Several of these programs have been recognized by international organizations like Habitat, the United Nations Conference on Human Settlements (UNCHS), and the Aga Khan Foundation as being among the most imaginative and effective programs in the area of human settlement development. There also exist a section of critics in India who arraign these projects as being unworthy of the praise that they have received and have attempted to expose their

shortcomings and oversights. The report shall consider both sides of the story, wherever possible, to arrive at an objective and disabused conclusion.

1.3 Research Methodology

This research is a qualitative research. The research methodology, hence, shall be a combination of *unobtrusive research* and *field research*. In particular, *unobtrusive research*, for the purpose of this report, shall comprise of *content analysis* and *comparative analysis*. Content analysis involves research through the analysis of existing literature on the subject (Babbie 1999). Apart from books, information shall be obtained from several journals that have carried articles on NGOs and specifically on NGOs in India. The content analysis shall help to describe the various ways in which NGOs have been associated with development projects, particularly those that deal with provision of shelter and services. It will enable us to develop a general understanding of the advantages and limitations of contributing towards development as an NGO.

The research shall be based on the study of two case studies in India:

1. The Jaunapur slum resettlement project, New Delhi – a project in which an NGO was responsible for the entire planning and design of a resettlement scheme for squatters. It uses innovative, environment friendly, and cost-effective measures. It received the UNCHS Best Practices award in 1995.
2. The slum networking project, Ahmedabad – this project is a replication of the first slum networking project in Indore, which has improved the living conditions of the slums in the city of Indore by a *services networking* of all the slums with the

infrastructure of the city. It represents an incremental learning process based on previous experience and highlights issues that need to be resolved further. The Indore project also received the UNCHS Best Practices Award and the Aga Khan Award in 1998.

The projects are from different places in India, have attained different levels of success, and represent different facets and methods of slum development with the common goal of providing improved living conditions with ancillary goals such as poverty alleviation and raising the standard of living. The roles that NGOs have played in these projects vary in terms of their nature, magnitude, and decisiveness. The most common element is that NGOs were an indispensable part of each project. The analysis of the case studies shall be a comparative analysis according to a simple framework. The framework will restrict the comparison to the roles undertaken by the NGOs without delving too much into the locational, political, historical or institutional idiosyncracies that might have helped or impeded the success of the projects overall.

Content analysis and comparative analysis have their advantages as well as disadvantages. Probably, the most apparent advantage is that of saving time and money (Babbie 1999, 295). Keeping in mind the restricted time period for doing this research, and also the distance and spread of the case study sites, the choice of doing a content analysis is most appropriate. The disadvantage of a content analysis is that it is limited to the examination of recorded communications (Babbie 1999, 295). A way of minimizing this disadvantage is to examine the encomiums as well as the opprobrium, if any, for

successful projects. Having a neutral approach will help in augmenting the validity of a comparative analysis also. Thus, for this report, effort shall be made to analyze all sorts of criticism about the aforementioned case studies.

Another way of enhancing the validity of content analysis is to supplement it with field research. This helps the researcher to form his/her own opinions about various aspects of a study in addition to having understood the common opinion. In this report, that element of personal observation will help the analysis of the “Jaunapur” project. A personal site visit was undertaken for better understanding the complications of this project in December 1999 (in connection with a different research). The site visit was complemented by an in depth interview with the person who heads the NGO involved with the project. That provided some valuable insights into certain contentious issues that are usually not published for lack of documented evidence.

1.4 Research Diagram

The research methodology is illustrated in Figure 1.1.

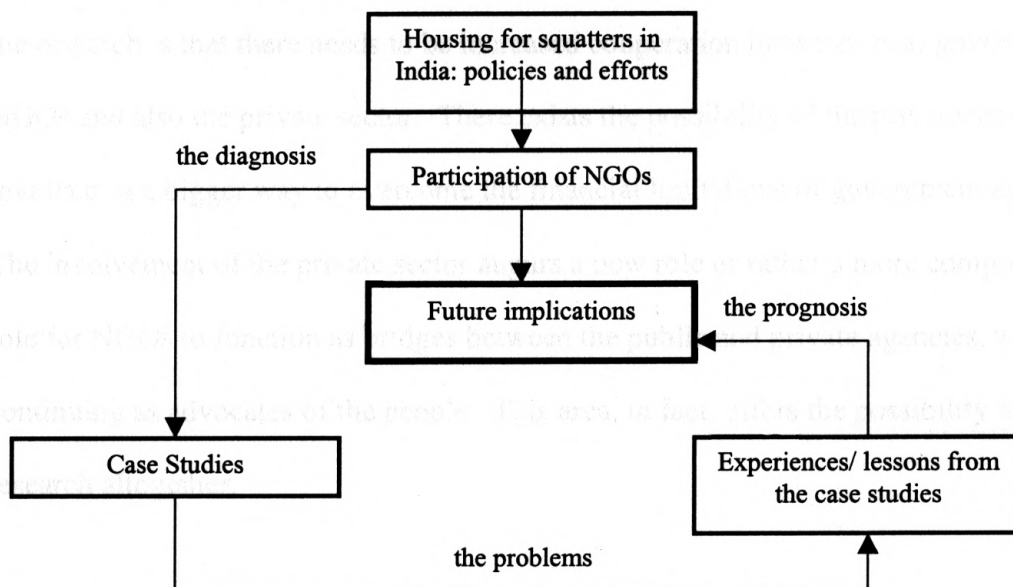


Figure 1.1 The research diagram

The analysis of the NGO participation in the delivery of housing goods and services for the poor naturally leads to the case studies. Concurrently, the analysis of the current trends yields some idea about the direction in which the role of the NGOs seems to be going. The understanding of the impediments experienced in the case studies serves as an essential feedback, in helping to modify the predicted direction of NGO roles, to the desired direction that shall better incorporate the inputs of the NGOs. This cycle should be a continuous cycle that results in constantly improving upon past performance, thereby making housing policies and projects achieve the desired goals.

1.5 Scope and anticipated results

The report intends to clearly illustrate the range of activities in the housing sphere that NGOs are involved with and the range of possibilities that exist to better incorporate the NGOs into the system to augment the reach and acceptance of new policies and programs. The report is based on the premise that NGOs are an essential link in the concatenation of the shelter delivery process in the Third World. The probable upshot of the research is that there needs to be increased cooperation between local governments, NGOs and also the private sector. There exists the possibility of the private sector to get involved in a bigger way to overcome the financial limitations of government agencies. The involvement of the private sector augurs a new role or rather a more comprehensive role for NGOs to function as bridges between the public and private agencies, while continuing as advocates of the people. This area, in fact, offers the possibility for another research altogether.

CHAPTER 2

AN OVERVIEW OF SHELTER POLICY IN INDIA

This chapter is a literature review of the steps that have been taken in the field of housing for the poorest in the Third World. The purpose of a literature review is to gather an understanding of the goings-on within the realm of shelter policies for the poor in the Third World, particularly in India, to be able to effectively analyze the case studies in terms of the contribution of NGOs to shelter programs. This will assist a probable prognosis about how NGOs can make housing and shelter for the poor more accessible and realistic.

The literature review is divisible into three parts:

1. The evolution of housing policies in India
2. The emergence of NGOs as important players
3. The opportunities for NGOs to contribute more in the future

2.1 Change in shelter policy for the poor of the Third World

One of the major drawbacks of the housing policies of developing countries is that they inappropriately adopted western ideas to their way of doing things in social housing up to the 1960s. Governments used their own budgets to develop public housing, for the poor and the low-income groups, that incorporated much higher standards than what was adequate or appropriate in terms of affordability as well as replicability. It was mostly due to the efforts of the World Bank, which exhorted Third World governments to follow the new three-pronged ideology of affordability, cost-recovery, and replicability, that

affordable housing for the poor began to be set to standards, to forms and types, and to conditions which actually reached the poorest (Pugh 1990, 12-13). The World Bank's new way of doing things was accepted as being justified because of the spread and success of its efforts in the area of housing for slum dwellers. This new wave was influenced by the socio-economic theories about housing for the poor, put forth by pioneer researchers like Charles Abrams, John Turner and Leland Burns, based on experiences from working with slum dwellers in Asia and Latin America. The new theory stressed sanitary amenities, hard paving, and lighting to slum areas, and allocated serviced plots of land for households to arrange their own house building. This replaced the older theory of building low-rise to mid-rise apartments, with government budgets supporting subsidized rents – the approaches adopted from the developed nations. India was one of the countries that responded to the World Bank prescribed strategy, quite early, in the 1970s.

2.2 The evolution of housing policies in India

In countries like India, unlike other developing countries, where housing institutions have existed for quite some time, there are problems of implementation and continuity (Ogunshakin 1994). In India, housing is primarily the responsibility of the state governments and not of the central government (federal government). Though the central government had some financial involvement and control over the housing process, it had not rendered significant attention to promulgating a comprehensive national housing policy until the late 1980s. Under the structure of Indian federalism, the central government does play a key role in funding public housing policies and also in providing

leadership in areas such as town planning, slum improvement, and low-income housing. But, due to the fact that different states have different policies; are governed by different political parties; and because politics in India are deeply fissured and fragmented by religion, regional variation, and the manipulation of power for sectional and opportunist advantage, it is difficult to maintain cohesion, national purpose, and stable policies (Pugh 1990, 39-40).

Though traditional town planning in India can be traced back to several centuries, the advent of modern town planning accompanied the surge of British dominance in India. Contemporary western ideas of town planning and housing were evident in the way the British cantonments and areas of cities inhabited by the British were laid out, particularly in the metropolitan cities of New Delhi, Mumbai (Bombay), and Chennai (Madras). However, there is very little evidence of the British government's intervention in large-scale housing projects (Bhattacharya 1990). It was only after independence that formal steps towards devising town planning and housing policies were initiated.

The central government has directed India's integrated national economic and social development through a series of five-year plans, the first of which was launched in 1951. The body responsible for this is the Planning Commission which was created in 1950. Policy-making, especially for housing, for the most part, has been ad hoc. This was characteristic of the First Plan but it brought housing and urbanization under the policy planning framework. The government initiated a 'low-income group' program for the development of sites and financial support was to be by way of expenditure grants to

subsidize rents. In India, from a housing perspective, people are categorized into four income groups – high-income group (HIG), middle-income group (MIG), low-income group (LIG), and finally the economically weaker section (EWS) which encompasses the poorest including slum-dwellers. In India, government provided housing accounts for only five percent of the housing stock, while the rest is provided by the private sector. However, the housing provided by the private sector is only accessible to the HIG and MIG groups (Pugh 1990).

Since the focus of this research is on housing for the EWS, the analysis of the evolution of policy shall be limited to developments in the five-year plans that addressed the needs of the poor, apart from certain watershed developments. The Second Plan (1956-61) advanced the idea of slum clearance by the central government, with the provision of loans, to be matched by the states, and subsidies. Slum clearance and eradication were realized to be inappropriate steps at a much later stage. The Third Plan (1961-66) concentrated more on MIG housing through loans. Another important development was the instruction to the states to develop master plans for their cities. However, the results were not even close to those anticipated because what was needed was investment and not layouts and maps of towns and cities. Housing continued to be inaccessible by a majority of the population, in spite of central government loans to the states, due to procuring of land by the states at market price, resulting in speculation and high prices. The lessons learnt from slum clearance were that they were unwieldy and costly to administer (Bhattacharya 1990; Pugh 1990).

Land reform was one of the main items on the agenda for the Fourth Plan (1968-74). During this period, the central government also created the Housing and Urban Development Corporation (HUDCO) in 1970. It was meant to be a financial-technical institution to bring resourcing power to housing boards and development agencies, under the jurisdiction of the state governments. Since its inception, HUDCO has allocated some 88 percent of its funds for the EWS and LIG classifications. The central government provides funds for HUDCO through its insurance companies – Life Insurance Corporation (LIC) and General Insurance Corporation (GIC), who channel loans to HUDCO. Today, HUDCO has a good appreciation of housing economics and the directions in which policy can be used for EWS and LIG households. Its main constraint is the limited volume of ‘privileged finance’ available (Pugh 1990, 146-147).

By the time the Fifth Plan (1974-79) came into effect, India still lacked a comprehensive housing policy embracing the private sector and all the other elements of the housing system. The slum clearance attitude changed to slum improvement but apart from that, there was nothing more to write home about. In 1978, the Housing Development Finance Corporation (HDFC) was set up. It was founded by private enterprise, buying funds from banks and finance houses for transformation into housing loans. It operates according to commercial criteria, being dependent upon the free-market economy. Loans are provided upon proof of incomes, a high collateral, and somewhat conservative repayment schemes – none of which helps the cause of the EWS. It is constrained by its nature and prevailing conditions in having a social purpose benefiting the poor (Bhattacharya 1990; Pugh 1990).

The Sixth Plan (1980-85) saw the influence of the new wave ideas that were propagated by the World Bank. Since 1972, the World Bank has exerted a powerful influence in the development of housing theory and policy. Some of its influence and power arises from its role as a major financier because it is able to express its favored policy reforms in the conditionality clauses attached to loan agreements with governments. Although the Bank's approach to housing is frequently associated with slum upgrading and sites and services programs, its impact on policy development has been far more incisive (Pugh 1994). Subsidies were to be avoided, except for the LIG and EWS groups. Relaxation of building standards, and use and development of innovative, cheap building materials were on the agenda. For the first time since the inception of centralized planning in India, a plethora of housing issues and ideas were identified and recorded in the Seventh Plan (1985-90). However, it fell short of providing a coherent national framework for housing policy. By this time, there was widespread awareness and involvement by intellectuals, policy-makers and organizations about the irrepressible problem of housing the poor. Increased action on their part, resulted in submission of the *National Housing Policy* (NHP) bill in 1987 for approval by the parliament, that coincided with the International Year of Shelter for the Homeless. The bill was passed in 1988 and it is a remarkable document in terms of its scope and sensitivity to the leading issues in housing (Bhattacharya 1990; Pugh 1990).

The NHP clearly lays out objectives, priorities and strategies aimed at the weakest segments of society, the homeless, and the inadequately housed. It seeks to encourage

and motivate the poor to seek decent shelter through “enabling” various programs. It recognizes, among several other objectives, the need to improve living conditions in slums through the provision of sanitation and basic amenities; the need to invest in housing to increase and maintain the nation’s housing stock; to make the system more effective and accessible. To achieve its objectives, it also identifies and lists several strategies for implementation. One of the important strategies laid down in the NHP, and which is of direct relevance to this study is (Bhattacharya 1990):

“ Giving impetus to co-operative and group housing activities as well as institutionalizing participation of non-governmental organizations.”

Even though NGOs had been active in housing activities with the poor for at least 15-20 years, it was the first time that the government had recognized and stressed the need to involve NGOs in the housing process. Bhattacharya (1990), while acknowledging the benefits of the NHP, feels that it is over-ambitious with its numerous objectives and strategies, with little coordination, and also believes that it still does not make land accessible to the poor. Looking at it from a less critical viewpoint, one can definitely aver that it was at least a start and a comprehensive national policy was put in place where there was none. Lastly, it is important to mention that the NHP also revealed the creation of a National Housing Bank that would mobilize capital for housing from all parts of the capital market, acting as an intermediary between the state housing institutions and the capital market.

The Eighth Plan (1992-97) clearly sees urbanization and infrastructure deficiencies as issues of serious concern and has specific chapters devoted to Urban Development, Housing, Water Supply and Sanitation. It recognizes the strong linkages between the physical infrastructure, environment, social health, urban poverty and degradation. It allocated Rs. 1,000 million to the Urban Basic Services for the Poor (UBSP) program (Diacon 1997). The UBSP program is discussed a little later. This indicates a changing attitude on the part of the state and a positive feature of having learnt from experience — that the state should definitely involve the people and become more of a provider of services.

The Ninth Plan (1997-2001) acknowledges the deteriorating situation of urban areas and seeks to launch comprehensive programs for improving the quality of life in slums. It states that the same level of infrastructural support shall be provided to all the city areas, including those inhabited by the urban poor. Paragraph 1.38 of the Ninth Plan Document states the following which reflects the concern of the policy makers to address these hitherto neglected issues (Planning Commission 1997):

“In recent years the problem of rapid urbanization has become acute. There has been a progressive decline in the availability of essential services as well as in the quality of life in urban areas. The urban poor have been the worst affected segment in this process of decline. The health and environmental consequences of increasing population density, lack of safe drinking water and inadequate urban sanitation are likely to become further aggravated unless steps are initiated during the Ninth Plan to improve the situation through a well considered and articulated urbanization policy with identified programme components including those for disease surveillance, epidemic control and urban solid and liquid waste management.”

Having looked at the evolution of housing policies in India, let us summarize the specific steps taken by the government in terms of housing for the EWS – the slum dwellers primarily. The Government of India adopted a ‘sites and services’ program to ameliorate the conditions of the weakest sections of the society, namely the squatters. This followed a slum eradication policy that was attempted in several cities without success. The adoption of sites and services resulted from a realization that it is beyond the financial means of the state to provide housing for squatters (Bhattacharya 1990). Sites and services is a concept of providing access to cheap lots with basic infrastructure and allowing beneficiaries to build their dwellings themselves over time incrementally. This is very similar to the self-help principles propagated by Turner (1976). The stress on site and services, and other self-help schemes was laid mainly by the World Bank which emerged as a major player in housing for the poor in developing countries in the 1970s. Most recently, the government has realized to involve the urban poor themselves in the process of housing and thereby change their status in the process from beneficiaries to partners. In 1991, the Government of India launched a landmark program called the Urban Basic Services for the Poor (UBSP). The program is expected to have more teeth now with the passing of the 74th Amendment to the Indian Constitution which devolves decision-making power to ward-level⁵ committees. UBSP brought together a wide range of individual programs dealing with the physical, social and economic aspects of poverty but with the difference that it aims to organize these on the basis of community involvement throughout (Diacon 1997, 6).

⁵ Several wards comprise a city municipality.

The limited success of sites and services and similar projects which were highly centralized in control resulted in the idea that governments should disband old housing delivery systems and, instead, encourage decentralized housing delivery by enabling market agents and community groups to supply housing to the urban poor (UNCHS 1990). An important role for NGOs was envisaged in such a system. They were supposed to be the binding agent between the institutions, the market agents and the people themselves. They were assumed to be non-desirous of profit motives and more knowledgeable than government agencies about the needs of the people. In addition, due to their empathy for and approach to the people, they were expected to play a crucial role in empowering the people through education. The people could then negotiate and even demand for resources and services from government agencies (Sanyal and Mukhija 1999).

2.3 The emergence of NGOs as important players in the shelter game

In India, NGOs have been involved with squatter settlements for at least about three decades now. Generally, they were involved more with social issues like education, primary healthcare, and women's right, and they were less involved with the actual housing process. The involvement with housing grew with the growing influence of the World Bank in slum improvement projects in the 1970s, some of which had very little government participation.

Today, NGOs are encouraged by international agencies (donors) and the Indian government to construct housing for the poor, upgrade low-income housing, and deliver

housing-related services to the poor – the entire gamut of shelter related activities. Sen (1992) finds that the role played by NGOs in housing and related activities fulfills Turner's definition of housing which should include environment, services needed by low-income communities, local-income generating activities, community organization, as well as the physical structure of the dwelling. Sen characterizes NGOs involved with housing into two categories. One type has a development and modernization emphasis through projects that increase productive capacity and self-reliance amongst the poor – supporting self-help projects, for instance. NGOs of the second type view poverty as the result of political processes and are committed to train communities to enter these processes to bring about long-term social change.

Housing and shelter improvement programs for the squatters that follow the self-help model have lower building standards in order to cut costs. Strong community groups are needed for such programs to succeed – possible only with the active participation of the slum dwellers. This is also required towards the maintenance of the new infrastructure and environments. Maintenance and aftercare is a very important part of all projects and government intervention in these matters is consistently absent due to several reasons, not the least of which is lack of funds. NGOs thus always have a more important role to play in the after-process than in the process itself. They motivate communities, educate them, mobilize resources from slum dwellers and coordinate the inputs from the local government and businesses with the activities of the slum dwellers (Diacon 1996).

Concomitant with the physical improvements are health, educational, women's

empowerment, and income generation programs, whose development is aided by the expertise of the NGOs using the same mechanisms.

Having seen the emphasis of the NHP to promote NGO participation in the housing process for the poor, one would assume that most NGOs are collaborating with the state and taking advantage of the increased opportunity for participation. However, that is not always the case. A certain NGO from Calcutta along with other similar organizations and individuals are running a campaign called the National Campaign for Housing Rights (NCHR). The campaign was the coming together of several protests and movements expressing discontent against the housing situation in India in the early 1980s and against forced evictions and slum clearances. The campaign came of age around the same time as the NHP and it attempted to stop the passing of the NHP bill saying that it was blatantly pro-urban, pro-builder and anti-people draft (*Environment and Urbanization* 1991). The campaign came up with its own version of a People's Bill of Housing Rights that was presented before the Parliament. One of the aims of the campaign is to try and make the Right to Housing a fundamental right in the Indian constitution. According to Sen (1992), the campaign has not been able to make much progress with the government because of its severe criticisms of government policy, as compared to other NGOs who have succeeded in utilizing the opportunities offered by the government, and capitalizing on those to strengthen their positions as key players in the housing process. However, as a result of the efforts of the campaign and other concerned citizens, a specific section on rural housing and minimum housing norms, that was initially lacking, was introduced in the NHP.

2.3 The opportunities for NGOs in the future

Rodwin and Sanyal (1987, 24-27) in suggesting new emphases on national shelter policies to help Third World governments in attaining greater leverage in their aims stressed the need to encourage incremental building by the poor. They emphasized the enhanced roles for local governments, community groups and NGOs. They have stated that NGOs, by virtue of their small scale, are less subject to the inertia of inter-agency rivalries that often reduce the effectiveness of bureaucracies in implementing programs. They are more prone to experiment with innovative ideas which are often shunned by established agencies more vulnerable to criticism. They also rely on appropriate (locally learned) technologies more than government agencies do and have proved to be remarkably cost effective. To enhance their role would require more responsiveness to their activities and needs, as well as learn from their experiences. Such policy changes will appeal to international assistance agencies that have become disillusioned with the discrepancies between the aims and results of shelter programs.

Globalization is shifting the balance of power from public to private interests, including NGOs. Sustainable development requires a change in power relations to facilitate self-development of all. NGOs – as explicitly value-based organizations – have a crucial role to play in supporting these changes through their program activities, constituency-building work and organizational praxis. The decline of paternalistic foreign aid and the rise of more genuine international co-operation provide an excellent opportunity to advance this idea (Edwards and Sen 2000, 605). Though this statement is more

representative of power relations in economics and politics, it also echoes the change in posture necessary in shelter policies.

In acting as contractors for international assistance agencies including the UN agencies, NGOs can extend the reach and scope of such programs, bringing them closer to the ultimate recipients and thereby enlisting their collaboration. NGOs can thus, pioneer the formation of a new kind of transnational society where individuals and their voluntary associations replace international agencies and governments as the immediate sources of various social services now usually associated with the territorially based state.

Collectively, they can serve as substantial agents of change, although the contribution of any particular NGO might have only modest proportions (Gordenker and Weiss 1997).

The first city that experimented with slum networking was Indore in Madhya Pradesh (MP) followed by Bhopal and Ahmedabad in Gujarat, Jodhpur in Rajasthan, and Mumbai or Bombay in Maharashtra. The Indore project is the most well-known of all of these and has won international acclaim, including the 1993 World Habitat Award from the United Nations, and the Aja Khar Award in 1998.

The characteristics (Ghosh 1992; Dubey 1996; Nicholas 1998) of the slum networking approach can be listed as follows:

- It is based on the realization of the fact that generally most slums and squatter settlements tend to be located along the water channels, natural or constructed, in

CHAPTER 3

CASE STUDY 1: THE SLUM NETWORKING PROJECT, AHMEDABAD

3.1 What is *slum networking*?

'Slum networking' is an innovative way of improving the physical and social conditions of slums. It is an integrated approach that tries to simultaneously tie together several aspects of development. Due to its holistic nature, it stands out from the other contemporary approaches for slum development. Slum networking has been attempted with a fair degree of success in some Indian cities. The concept is the brainchild of Himanshu Parikh, a consultant engineer based in Ahmedabad (Gujarat state), India. The first city that experimented with slum networking was Indore in Madhya Pradesh (MP), followed by Baroda and Ahmedabad in Gujarat, Jodhpur in Rajasthan, and Mumbai or Bombay in Maharashtra. The Indore project is the most well-known of all of these and has won international acclaim, including the 1993 World Habitat Award from the United Nations, and the Aga Khan Award in 1998.

The characteristics (Diacon 1997; Diakon 1996; Nicholson 1995) of the slum networking approach can be listed as follows:

- It is based on the realization of the fact that generally most slums and squatter settlements tend to be located along the water channels, natural or constructed, in

the cities. Water channels include rivers, streams, canals, large storm water drains, and *nallahs*⁶ (see Figure 3.1).

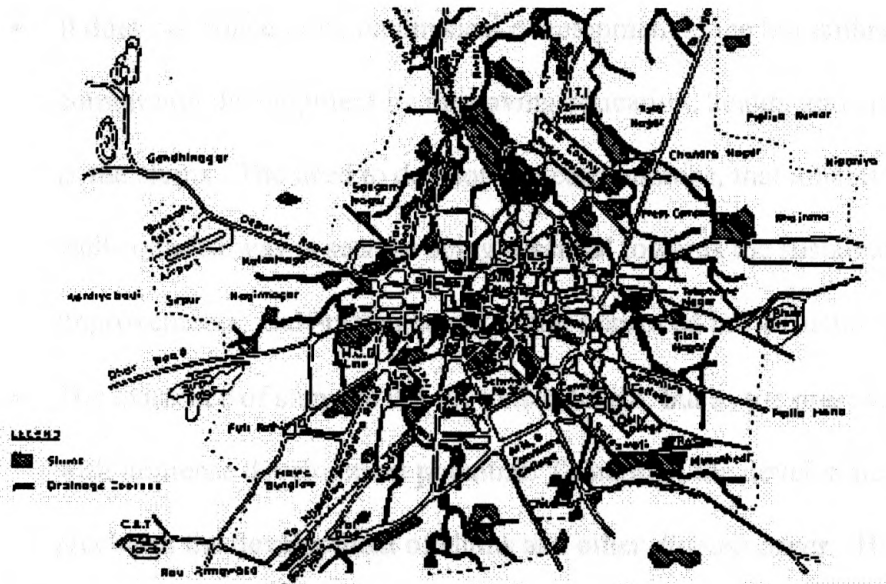


Figure 3.1 Location of slums and drainage channels

Source: from Parikh, H. H. 1995. *A Community-Based Sanitation and Environmental Programme: Experiences of Indore, Baroda and Ahmedabad.*

- Because slums are situated on water channels that are mostly interconnected, therefore the location of slums forms a net, and can be *networked* for the provision of services. Slum networking does exactly this. It integrates the development of several physical services like roads, water supply, sewerage, and solid waste management across the entire network. This saves money and time by eliminating conflicts and duplication.
- The techniques for laying the physical services are also innovative and cost-effective, which have been specifically developed as alternative solutions for the

⁶ *Nallah* is a term used for a drainage channel that can be natural as well as man-made, and flows at an ordinary pace. In the urban areas, a nallah generally conveys the image of an open drain that is filthy, with garbage dumped in it, and almost standing, instead of flowing.

development of slums. Topography management, earth degradation, gravity based sewerage systems, and constructive landscaping are either novel concepts or have been used in a novel context.

- It does not concentrate on physical development alone but embraces social and community development by improving education, health, and employment levels in the slums. The need to develop the communities, that inhabit the slums, in a well-rounded way is seen as being essential towards the sustainability of such improvements. Self-management of the improved infrastructure is a key aspect.
- The existence of slums is not viewed as blight, but as the presence of a resource with immense development potential. Generally, the development of a city precludes the development of slums and other *distress zones*.⁷ However, the development of the slums through slum networking contributes to the improvement of infrastructure at a city-level. Slum networking exploits the interlinkages between slums and the transitions between the slum fabric and the city fabric. The development of the city and the development of slums, thus, constitute a symbiotic process.

3.2 Slum networking and other prevalent practices of slum development

Socially and physically, slum clearance practices were a failure. After the period of forced evictions and slum eradication schemes, the state took to more realistic and effective ways of improving the housing and living conditions of squatters. In order to appreciate the efficacy of slum networking, it is important to know about the other

⁷ Areas that have very poor infrastructure and are generally inhabited by low-income people.

prevalent common practices aimed at the development of slums. Generally, these practices can be divided into three categories (Diacon 1997; Nicholson 1995):

- **Slum Improvement Programs (SIPs)** are essentially infrastructure providing programs. No relocation is involved and works are carried out with the dwellers in situ. Though security of tenure is built into some programs, it is not usually the case and the dwellers continue to be regarded as illegal squatters.
- **Slum Upgrading Programs (SUPs)** sometimes provide for infrastructural improvements, but the main thrust of such programs is the legalization of settlements. Convinced of security of tenure, it is expected that the likelihood of the dwellers to undertake improvements in their dwelling condition at their own expense is greatly increased. Whereas this might be true to some degree, the success of such projects is limited in the absence of coordinated and concerted effort.
- **Slum Redevelopment Schemes (SRDs)** are probably the most controversial because they involve uprooting people from their existing dwellings. People are moved to an 'interim' camp, while the existing dwellings are razed, and new infrastructure and buildings (usually multi-storeyed) replace the old. The deficiencies of this approach include high capital and maintenance costs, resale by the intended beneficiaries resulting in gentrification by higher income groups, and the destruction of informal community structure and linkages that are built up over time.

Of the conventional methods discussed above, Slum Networking is closest in character to SIPs. It also involves infrastructure provision with dwellers in situ, and the removal of families from the site is very rare. However, slum networking is more expansive because apart from physical and environmental improvements, it also strives for social and community development.

3.3 Physical Improvements in the slum networking approach

Most slums have little or no physical infrastructure. Even in those slums, where the government has tried to provide some semblance of infrastructure, the conditions are far from satisfactory. This is because most of the times these development efforts are ill-coordinated if not unplanned, inadequate, and often implemented under poor supervision. Typical infrastructure provision efforts include community water taps, community toilets, the odd street lamp, sewage disposal drains and some paving. Firstly, these improvements are not substantial to make any appreciable difference in the lives of the people and, secondly, due to lack of maintenance, all efforts tend to deteriorate and revert to the original squalid conditions rapidly. Moreover, there is rarely any improvement in the health of the slum dwellers since the problems of waterlogging, contamination and defecation in the open are rarely addressed (Diacon 1997, 13).

A comprehensive range of physical improvements are included in the slum networking approach and they include improved roads and footpaths, storm drainage, sanitation and sewerage, water supply, street lighting, earthworks, soft landscaping and solid waste management. Though the comprehensiveness of the approach is definitely

commendable, what is indeed most significant is that the measures undertaken in the approach reflect a high degree of cost-effectiveness and synchronization. A short description of the individual improvements that follows is required to grasp the comprehensiveness of the efforts (Diacon 1997; Nicholson 1995).

3.3.1 Roads and footpaths: There are two major problems with conventional road building techniques – first, that they tend to be located in the ‘lie of the land’⁸ which creates potential for water forming pools, and second, that roads are raised above the ground level and slope outwards, causing water to run off to the margins and flood the surroundings. The slum networking approach attempts to overcome these shortcomings cutting the roads into the ground, and these slope from higher to lower levels, where storm discharge points are located (see Figure 3.2).

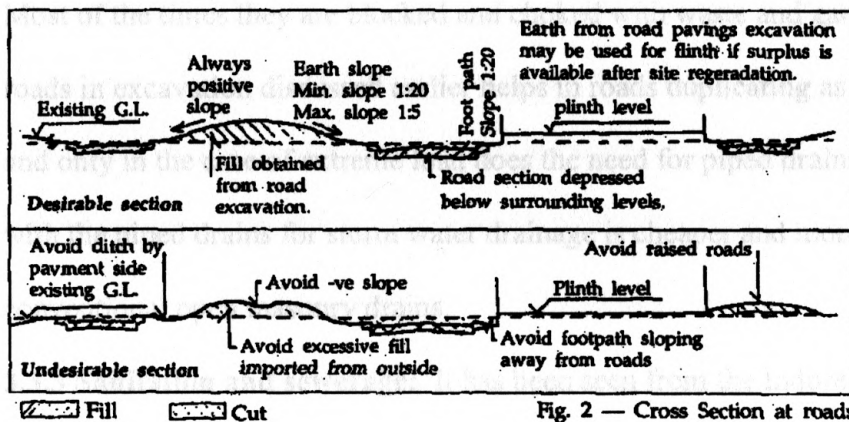


Figure 3.2 Cross section at roads

Source: from Parikh, H. H. 1995. *A Community-Based Sanitation and Environmental Programme: Experiences of Indore, Baroda and Ahmedabad.*

The advantages of this method are:

- Water never floods people’s homes as it drains off onto the road.

⁸ Rising and falling with the topography

- Since sub-base thickness is reduced in this technique and road filling expenses are eliminated, savings to the tune of 25 percent of the cost are achieved.
- Grading, landscaping, cutting and filling are inexpensive measures and the community can participate directly in these.
- Wherever possible stone, brick or concrete roads are used in place of asphalt. These are cheaper, more durable and can be constructed with local labor.
- Except for the major access roads, all internal streets are kept to the minimum width to allow the passage of emergency vehicles. The margins are graded and planted rather than paved.

3.3.2 Storm drainage, paving and landscaping: The conventional practice of constructing open storm water drains invariably does not perform upto expectations. Most of the times they are blocked and choked with waste and garbage. The laying of roads in excavation discussed earlier helps in roads duplicating as storm water channels and only in the case of extreme load does the need for piped drains arise. Using the roads with the piped drains for storm water drainage is cheaper and more sanitary than the conventional open masonry drains.

3.3.3 Sanitation and sewerage: It has been seen from the Indore experience that piped sewer systems designed according to the needs of the project are hygienic, affordable, and easier to maintain. Usually, sewage lines run separate from nallahs and often run along main roads due to which they have to be dug deeper and thus are more expensive, and require pumping. Using gravity based piped sewerage systems that run along the nallahs and the excavated roads cuts costs, increases efficiency and helps in better networking of the larger systems. Not only can the individual slums be interlinked but it

helps in linking all the slums in the city and, therefore, in evolving a city wide sewerage infrastructure. Since in most Indian cities like Indore, proper sewerage systems are absent, developing a system that incorporates the slums helps in creating a very affordable and truly effective system. By arresting the flow of sewerage into the nallahs and streams, it also helps improve the environmental quality.

An innovative way to treat sewerage has also been developed using reed beds over clay or plastic-lined pits. Reed beds have been proven to effectively cleanse sewer water and the use of lining prevents the seepage of pollutants into the soil. The reed beds can be planted with an indigenous aquatic plant called *Phragmites australis* that help break down sewage into clean water. The design of such systems needs careful and appropriate needs assessment and load calculations but once that is achieved the implementation of the system is highly cost effective. Slum networking also emphasizes on individual water connections and toilets in each house and executed the same ideas thereby quashing the general notion of community toilets due to density and maintenance problems in slums. Individual toilets are definitely more sanitary than the inadequate and overused community latrines. Soft loans are available to help the slum dwellers make these connections and construct the toilets.

3.3.4 Water supply: Slum networking incorporates the available water supply into the projects. Even hand pumps and wells are integrated into the system. New water supply is installed wherever there is none. In creating new networks, the emphasis is always on trying to create looped networks instead of branched networks to achieve equal water pressure throughout the area and eventually on a city-wide scale. Often, there exists a problem of adequate water pressure even though there is water supply.

3.3.5 Earthworks and landscaping: These are important elements of the slum networking approach. The earth that is obtained from the excavation of the roads is used for landscaping and grassing of areas instead of paving such areas. Apart from creating firm surfaces at a fraction of the cost of paving, these surfaces also help in better water absorption, improving the microclimate and reducing dust. By letting the community plant and care for trees, and pay them for doing so, instead of the government planting trees with cages called tree-guards around them for two-years, the cost of maintenance is reduced from Rs. 1200 to Rs. 250 per tree. After two years, the tree can sustain itself.

3.3.6 Street lighting: Street lighting is provided where there is none. The electricity lines are overhead. Slum networking has wanted to put the lines underground. This is safer, cheaper to maintain, more aesthetic and prevents electricity theft – a common practice in slums in India. However, due to the high initial investment in an underground system, this has not been realized in the projects so far.

3.3.7 Solid waste management: This is not a just a problem in the slums but a problem all over India. Waste tends to collect in side lanes, drains, and in sewer manholes and is neglected by municipalities and residents alike. This has been the least successful of all slum networking initiatives. An educational program amongst slum dwellers to collect and separate rubbish and to convince them of health hazards has not been very successful, and is exacerbated by a lack of municipal support in collecting garbage from collection points as agreed.

3.4 Community development

The slum networking approach realizes that mere physical improvement of the slums is not enough to improve the quality of life of the slum dwellers. This approach ensures

that there is an improvement in the social, economic, health, and education levels of the community also by roping in the active participation of the community. Community involvement is crucial to the success of such programs because it gives the inhabitants of the slums a sense of confidence and belonging. For community development, the first step is to identify Resident Community Volunteers (RCVs) who are then organized into Neighborhood Committees. There is one RCV for approximately 25 families (Diacon 1997, 21). The Neighborhood Committees begin by mobilizing the slum dwellers to participate in the project right from the construction stage. Then, community participation is extended to financial management and resolving problems within the community. Special care is taken to ensure the participation of women.

Building a community hall is the first construction work in each slum. This becomes the focus of the project and nerve center of all community activity. Initially it serves as the project office and eventually it is handed over to the Neighborhood Committee for future running and maintenance. It is from here that all community development programs are run and monitored. Neighborhood Committees are the links between the implementing agencies and the residents. NGOs play an important role in the community development aspect of the slum networking approach. They can be involved right from the very beginning, which is the mobilization of the people, and their presence continues much beyond the completion of the physical improvements. Their participation is crucial towards the development and success of all community development programs. Though, the description of the programs is beyond the scope of this report, the programs include the following.

3.4.1 Economic activities/ income generation:

- Workshops for developing vocational and entrepreneurial skills.
- Establishing cottage industries for housewives and linking them to the local industry and market.
- Setting up revolving funds for giving short term loans for raw materials, machinery and establishment.
- Providing technical scholarships to promising students.

3.4.2 Education: The educational support is designed to encourage better linkages between the slum dwellers and the mainstream education system through the following:

- Pre-primary education through the setting up of a kindergarten to help build the confidence of the children to attend primary schools run by the state.
- Non-formal education for those children who have dropped out due to pressures on family income or for other reasons.
- Adult education to improve the literacy levels of the slum dwellers.

All these programs are funded for three years by the sponsors, following which they are absorbed into the regular, established state programs.

3.4.3 Health: The health programs are also designed to dovetail into the state medical provisions. Training and management of field staff is undertaken by State bodies.

Training and basic infrastructure is provided for:

- mother and child care.
- family planning – The Government of India has been successful in operating an effective and far reaching family program for several years now.

- providing a medical officer, upgrading any existing dispensaries, providing essential drugs, training community health workers, and establishing linkages with local hospitals for referrals.
- health monitoring for maintaining records and creating a database of mortality, immunization, family planning usage, frequency and nature of illness, etc.

3.5 The Slum Networking project in Ahmedabad

3.5.1 Background: Ahmedabad is the largest city in the westernmost state of India – Gujarat and the seventh largest city in India. Gujarat is one of the most industrialized states in India and Ahmedabad is the largest center of industry and commerce in Gujarat. Ahmedabad has been a major industrial city for a very long time and as such has remained a magnet for people from rural areas and lesser developed towns who flock to the city in search for employment.

Ahmedabad is also a historical city and was once considered magnificent, but its ability to support its growing population began to decline in the wake of industrialization.

According to the 1991 census, Ahmedabad's population stood at 2.88 million, of which 1.17 million people lived in slums and *chawls*.⁹ The chawls were built with minimal facilities, primarily to house industrial workers and are today in deplorable conditions, much in need of restoration. It is estimated that about 500,000 slum dwellers in Ahmedabad have no toilet facilities and defecate in the open. About 70 percent of the limited number of public toilets that exist are non-functional at any given time. The

⁹ A term used for urban tenement shanties is western India.

slums that existed prior to 1976 have water supply through stand posts or individual connections, though the water pressure is generally poor. Slums that have sprung up since lack even that. Water is contaminated in many places. Most of the slums are not connected to the city's sewer system and some of the peripheral slums don't even have storm water drainage. In addition, the fact that most of the slums are unpaved, the situation during the rainy season becomes not just treacherous but the slums become virtual cesspools and breeding grounds for diseases. Many of the slums are on private lands and so the Ahmedabad Municipal Corporation (AMC) does not even clean up the garbage from these areas occupied illegally.¹⁰ Slums are located on municipal lands and government lands. For the municipal lands, the AMC has given ten years written security of tenure with the view that it is as good a permanent ownership that one can get, without changing national laws on ownership by squatters (Diacon 1997).

The declining trend continued until the plague epidemic hit Surat¹¹ in November 1994 and spread through much of western and northern India.¹² Thousands of people perished due to the epidemic and it caused the authorities in Gujarat to take stock of the situation. The incidence of the epidemic was traced to the existing squalor and filth in the slums and other parts of the city. As a result of the diabolical event, several Indian cities, particularly in Gujarat, embarked on projects that would improve the blight in the slums. The Ahmedabad project was one such project that began in April 1995.

¹⁰ Urban Management Center, "Slum Networking – A Holistic Approach for Improvement of Urban Infrastructure and Environment," 19 March 1999, <<http://www.hsd.ait.ac.th/bestprac/abi.htm>>(1 January 2001).

¹¹ A city famous for its diamond and textile industries in southern Gujarat.

¹² The Aga Khan Award for Architecture, "Slum networking in Ahmedabad," Case study, 1998, <<http://www.aka1998.org/forms/image.htm>>(6 February 2001).

3.5.2 The Project: After the demonstration of the slum networking strategy in Indore, Himanshu Parikh, the creator of the slum-networking concept, approached Sanjay Lalbhai, Managing Director of Arvind Mills¹³, to persuade the company to support a similar project in Ahmedabad. Lalbhai was impressed with the results of the Indore project and pledged Arvind Mills' support for a *pilot* project on a smaller scale to begin with. The pilot project was to be the improvement of the slums of Sanjay Nagar. After securing the commitment from Arvind Mills, Parikh approached Keshav Varma, the Municipal Commissioner of Ahmedabad Municipal Corporation (AMC) with the plan. Varma agreed to initiate a citywide project encompassing all the slums in the city and also pledged AMC's support to the pilot project. Incidentally, Varma was considered as one of the most dynamic and progressive Municipal Commissioners in the city's recent history (Chauhan and Lal 1999)¹⁴. Thus, there were to be three partners in the project – Arvind Mills, AMC, and the residents of Sanjay Nagar.

The three objectives of the pilot project were: (a) to improve the basic physical and non-physical infrastructure facilities within the selected slum areas, (b) to facilitate the process of community development, and (c) to build up a city level organization for slum networking and infrastructure development. The first step was to undertake the physical improvements and the second was to be community development, incorporating all the tenets of slum networking that were discussed earlier on.

¹³ An Ahmedabad based textile company that is one of the largest producers of denim cloth in the world.

¹⁴ This article is accessible on the net at <<http://www.epw.org.in/34-1011/sa5.htm>>. Most of the section on the project details have been distilled from this article.

Initially, an organization called SHARDA trust was to be responsible for the community development program but it soon realized that it did not have the requisite organizational setup for undertaking a project on that scale. Thus, the responsibility was entrusted upon SAATH, an Ahmedabad based NGO that had been working with slum communities since 1989. However, SHARDA trust continued to be associated with the project but not with the community development part. Another actor in the project was to be the SEWA bank (Shri Mahila Sewa Sahakari Bank), which is an internationally renowned cooperative bank that has helped to uplift the lives of poor women in India. The bank's mission was to provide financial services to the women in the slums. Each participant, except SEWA, were to share a part of the cost of one or the other component (this was a modification from the original plan due to the inclusion of SAATH). Even the slum dwellers were to make a contribution on a household basis and as such they were no longer just 'beneficiaries' but were stakeholders in the project. The cost sharing formula is shown in Table 3.1.

The Sanjay Nagar project got underway on August 5, 1996. Sanjay Nagar is located on a 1.75 hectare plot owned by the AMC. It comprised of 181 households with a total population of about 1200. Most of the residents belonged to a particular community whose major occupation is the small time retail vending of fruits and vegetables. The illiteracy rate among the residents was 51 percent. Only 37 percent were occupied in some occupation apart from vending, 15 percent had salaried jobs and 51 percent were vendors. There was no physical infrastructure apart from three public standposts and two blocks of public toilets (Chauhan and Lal 1999). Due to their illegal occupation on

public lands, the residents had never invested in upgrading the infrastructure or the dwellings on their own due to the constant threat of eviction.

Table 3.1 Cost-sharing in the pilot project

Cost Component	Cost per family (in Rs)	Participating organizations' percentage share			
		AMC	Slum dwellers	Arvind Mills	SAATH
Physical development	6000	33.33	33.33	33.33	0
Physical survey	30	100	0	0	0
Design and consultancy	120	100	0	0	0
Establishment	330	70	0	30	0
Community development	1000*	70	0	0	30
Community corpus	100	0	100	0	0
Total expenses per family (Rs)	7,580	3,081	2,100	2,099	300
Cost for 3300** families (Rs lakh***)	250.14	101.67	69.33	69.27	9.9

Source: Chauhan and Lal. 1999. Public-private partnerships for urban poor: A slum project in Ahmedabad.

* This amount was sufficient to run the community development program in Sanjay Nagar for one year.

SAATH decided to run it for two more years out of its own funds.

** This was the total number of families initially targeted in the pilot project which included families from two more slums apart from Sanjay Nagar.

*** 1 Lakh = 100,000

3.5.3 Ground rules for the project: There were no legal agreements between the partners. An allusion to the 'ground rules' was made in the resolution passed by the AMC during project approval. The lack of explicit definition of the organizational structure, individual roles and authority caused several problems in the implementation of the project. Some of the key features in the resolution passed by the AMC that are worth mentioning are:

- Arvind Mills was to be the main player in the project shouldering the bulk of the responsibilities. AMC sought private sector participation to install and manage the provision of services in the slums.
- As a departure from standard practice, the AMC acknowledged the need to collaborate with voluntary organizations and industrial houses to solve the

problem of slums and chawls in the city of Ahmedabad. It also acknowledged its failure or limited success in trying to address these problems with its own efforts.

- It agreed to play the role of a *facilitator* in the process – to enable legal and procedural convenience to expedite the implementation, apart from enabling the provision of physical services.

3.6 The positive outcomes: There were three positive outcomes of this project. The project was able to provide good quality basic infrastructure at a low cost; did not exceed the budget; and it involved people’s participation in the changes at all stages. Table 3.2 shows a summary of the infrastructure provided in Sanjay Nagar – an area that had none whatsoever.

Table 3.2 Infrastructure created in Sanjay Nagar

Type of Infrastructure	Quantity
Pathways (kms)	1,000
Electric poles (no.s)	18
Sewerage (kms)	1,184
Manholes (no.s)	9
Inspection chambers (no.s)	46
Gully traps (no.s)	181
Water supply lines	
Main pipe line (meters)	700
Connecting line (meters)	750

Source: Chauhan and Lal. 1999.

One of the main issues was the absence of a proper water supply system in Sanjay Nagar. The problem was grave because Ahmedabad has a hot and dry climate. After the installation of the services, the water supply has been quite satisfactory. The main water tap in each house receives water for about two hours daily at adequate pressure and the residents are able to collect enough water for daily use in about one hour. The water is also tested and treated before it is supplied. This is a vast improvement as compared to the water situation in slums generally, where people have to stand in long queues with

buckets and pots to fill water from just a handful of community taps, with water barely trickling out of those. According to Rajendra Joshi of SAATH, which runs dispensaries and childcare facilities, the incidence of tuberculosis and water-related ailments have reduced dramatically since the improvements came into being (Shah 1999).

The choice of materials for the project was appropriate for the specific needs of the settlement and there was no compromise with the quality of service and the intended performance. The estimated project cost was Rs. 6,110 per household and after completion it worked out to Rs. 6,171 per household.

The community was party to every decision that was made beginning with the design of infrastructure to payment of the contractor's bills. The residents also formed the 'Sanjay Nagar Residents' Association' which represented the voice of the people. It was also able to mobilize a community fund with a Rs. 100 contribution from each household for the maintenance of the infrastructure (Chauhan and Lal 1999). Once the major infrastructure was put in place, the residents felt a sense of security and have since taken up the task of upgrading their shelters on their own, of their own funds. A sense of belonging and a desire to live, rather than just exist, has been instilled in the community due to the combined enabling efforts of the various players.

Finally, the most important achievement was the self-sufficiency regarding finances. This is particularly impressive when viewed in perspective with the earlier projects. The Indore project was funded entirely by the British Overseas Development Administration

(ODA). Thereafter, in the Baroda project, the slum dwellers raised over 50 percent of the estimated amount, while the rest was met by the UNICEF, and by the Baroda Municipal Corporation and local industry to a lesser extent. In the Ahmedabad project, the costs are shared by the residents, the local industry and the AMC, thus eliminating the need for any foreign aid or development grant from international agencies or the government. To everyone's amazement, families invested from Rs. 25,000 to 40,000 to renovate their houses (Shah 1999).

3.6.1 The reasons for success: Apart from the innovative design and low-cost solutions, the main factors behind the success were efficient execution, good supervision and motivation. Good communication was maintained between the executing agency and the contractor. Adherence to the accepted design helped the project stay on course without accumulating delays or changes in the design that would have caused the costs to escalate. The dedication of SHARDA trust to provide capital to the contractor to keep the work going by securing loans was a key factor. It also persuaded the SEWA bank to expedite the grant of loans to the residents to meet their financial obligations. The trust decided to underwrite the residents' contribution for individual power connection. It is also important to acknowledge the dedication of the contractor who, inspite of situations where he could have stalled construction, decided to carry on with the work without compromising quality or exceeding the budget.

3.7 The shortcomings of the project: There were three prominent failures:

- Delay in completing the project

- Very little community development
- Inability to attract greater participation from the industry to expand the pilot project to a citywide slum networking project

Till 1999, the SHARDA trust had been able to upgrade only 181 households as against the target of 3,300.¹⁵ Due to this, the administrative costs were very high despite keeping the overheads to a bare minimum.

The NGO, SAATH, devoted most of its attention to community health and education as part of its community development plan. Though a pre-school for young children was started as early as October 1997, precious little was done for non school-going children, dropouts and adults. The least impressive of all areas was that of skill development and income generation. The NGO did not have any definite strategy to tackle the problem, mostly due to its lack of expertise and confidence in this area. Though the community association was formed, the youth and women's fora which were also part of the plan are non-existent.

Arvind Mills, which was so forthcoming with support in the beginning is not keen to participate in the citywide project. This is mainly due to the bureaucratic problems in dealing with the AMC as a partner. This has been a deterrent to the other industries in coming forward with support and only the Lion's Club had agreed to participate in the citywide project.

¹⁵ This figure also includes households from two other slums aside from Sanjay Nagar. The trust had earlier decided to go ahead with the development of these households, even without the support of the other partners.

3.7.1 The reasons behind the shortcomings: One of the main reasons was the lack of experience in dealing with a problem of this sort with several partners – private, public, and non-profit. Such problems are bound to arise with any collaborative effort but they can be minimized and even eliminated with experience. The major shortcoming of the project was the delay and this was caused mainly due to bureaucratic problems with the various departments of the AMC. Even though the AMC had established a special cell called the Slum Networking Project (SNP) cell for handling the matters of the project, the SHARDA trust had to deal separately with all the departments of the AMC for the physical developments. This required cooperation on behalf of the AMC employees but the trust encountered passive, uninterested, negative, and even hostile attitudes from the AMC officials in the other departments.

The second reason stemmed from the fact that a description of the exact roles to be played by the different partners and their functionaries was missing. For instance, the AMC engineer on site for coordination purposes, on several occasions, took on a proactive supervisory role, which was actually the responsibility of the contractor appointed by SHARDA trust (Chauhan and Lal 1999). Such clashes, aside from delaying the project, helps to propagate mistrust and dissatisfaction among the partners. Similarly, even the AMC officials, at times, felt that they were not treated as equal partners and their well meaning interventions and suggestions were considered to be improper interference by the others.

Finally, it is essential to note that just good intentions do not suffice in ensuring the success of a project of this scale. This was the pitfall in the case of SAATH. After taking the responsibility for the entire community development, it was unable to initiate and direct the employment generation activities.

3.8 Summary

Ahmedabad is a very large city with a large slum population and most of its slums are in deplorable conditions. After the implementation of slum networking in the cities of Indore, and Baroda, Himanshu Parikh, the person behind the slum networking idea, wanted to apply it to Ahmedabad. This was the first time that the private sector (Arvind Mills) agreed to play a major part in the process along with the other partners – the slum dwellers, AMC, and the NGOs. The greatest achievement of the Sanjay Nagar project was that it demonstrated that finances for slum development can be mobilized locally, and foreign aid can be precluded altogether, which is mostly the case. The project had good results with respect to physical upgrading of services but they were delayed. In terms of community development, the results were mixed with some areas like health and education doing well, while others like vocational training and employment generation still lagging behind. The project provides good insights into the problems that arise from public-private partnerships and how the public agencies must remove the cloak of bureaucratic intransigence in order to facilitate transparency and expediency in similar development projects. It also shows how NGOs have a crucial role to play in community organization and garnering people's support because community participation, financially and otherwise, definitely played a huge role towards the success of the Sanjay Nagar

project. This was made easier due to the participation of the AMC and its grant of the ten year security, which has led to many houses getting converted into permanent dwellings after the completion of the project.

CHAPTER 4

CASE STUDY 2: THE JAUNAPUR SLUM RESETTLEMENT PROJECT, NEW DELHI

4.1 Delhi and slums

Delhi is not just one city but a loose collage of numerous cities and urban areas of varying ages. The earliest cities comprised of present day Old Delhi and it is characterized by a certain kind of chaotic liveliness-street markets or *bazaars*, wayside temples, rickshaws, zig-zag lanes choked with people, and full of noise, color and entertainment. New Delhi was made the capital of India in 1911 and was designed by Edwin Lutyens and Herbert Baker. It portrays stately grandeur to the world with its wide tree-lined boulevards, tasteful architecture of its government buildings, large green open spaces, and cleanliness. However, poverty does exist behind these drapes of splendor. Outside that part of New Delhi, which forms the seat of the government, numerous squatter settlements have sprung up, dirty, crowded, and without basic amenities. Squatter settlements are not welcome in New Delhi and so the planners and bureaucrats, from time to time, keep moving them to resettlement colonies miles to the east, across the river *Yamuna*, or to the west and the south in organized 'resettlement colonies' (Pugh 1990, 175-177). The population of Delhi is estimated to be more than 11 million, of which 3 million are slum dwellers (Anangpur Building Center 1998).

4.2 The Jaunapur project

The Jaunapur project¹⁶ involves the resettlement of a squatter colony from the *ridge*¹⁷ area to the village of Jaunapur near the southern border of Delhi. A Supreme Court of India decree in May 1996 ordered the resettlement of 3600 families who had encroached on an area within the southern part of the ridge, within a time bound framework. This decision was the result of concern raised over the environmental degradation of the ridge. The initial court order wanted the resettlement to be completed by October 31, 1996. The responsibility was entrusted upon the Slum and JJ Department¹⁸ (SJJD) of the Municipal Corporation of Delhi.

Out of a number of proposals, the government of Delhi and the SJJD approved the scheme developed by the Nizamuddin Building Center (NBC). The NBC is an autonomous agency, whose status is similar to that of a non-government organization (NGO), under the umbrella of the Housing and Urban Development Corporation (HUDCO). The Jaunapur project is similar to the slum networking projects in some ways and also significantly different in many ways. The most prominent difference is that

¹⁶ The information about the Jaunapur project presented in this paper is based on field work including interviews, and on project reports prepared by the Nizamuddin Building Center (NBC), the agency that has planned and designed the resettlement scheme. The fieldwork and interviews with the principal planner of the NBC were undertaken as part of a case study for the author's ongoing Master's thesis in Architecture at the Kansas State University. The fieldwork was conducted between December 13, 1999 and January 15, 2000.

¹⁷ The *ridge* is a hilly and rocky tract that is considered to be the weathered vestiges of the ancient *Aravali* mountain range. Most of Delhi is actually built on the ridge due to which there are only certain pockets where it is still in its pristine state. Most of its large patches are located in the western and the southern parts. Considered by environmentalists to be the lungs of Delhi, they are densely vegetated (the *ridge forest*)-mostly short, thorny trees typical of drier climates, and are home to a large variety of birds and small wild animals.

¹⁸ JJ stands for *jhuggi-jhopdi* which means *slums and shanties* in the Hindi language, which is spoken in most parts of north India.

unlike the slum networking project, the Jaunapur project is stalled and the people have not been able to move to the new site, even though some pilot units have been constructed. Another difference is that unlike the Ahmedabad slum networking project, where there was the involvement of the independent consultant, private sector, the public sector, and the NGOs, the Jaunapur project involved the independent consultant and the government agencies. There is no private sector participation. However, the independent consultants, the Nizamuddin Building Center (NBC) earlier and now the Anangpur Building Center (ABC) resemble NGOs in their outlook and operation.¹⁹ The NBC was responsible for the entire planning and design of the resettlement project using many innovative, low-cost, and sustainable features that make the project unique. The salient features of the project, which has been recognized by the United Nations Conference on Human Settlements (UNCHS) under its best practices scheme, include the following:

- Low cost
- Site selection and planning
- Materials and construction
- Maintenance
- Employment

¹⁹ NBC and ABC are building centers. The concept of building centers is about fifteen years old. These are training-cum-production building centers targeted to improve the housing situation for the poor. The building centers achieve this through the research, development and propagation of low-cost building components and appropriate technologies that use local materials. They have undertaken the design and implementation of housing for the low income groups using the materials and technologies that they produce. On site training programs also provide the necessary skilled labor for the projects. The first building center was the Nirmithi Kendra, set up in 1986, in the southern state of Kerala. In 1988, the Ministry of Urban Development (Govt. of India) and the HUDCO established the NBC in New Delhi as a model building center. Thereafter, a National Building Center Program under the auspices of HUDCO was initiated and several such centers were established in various parts of the country. There are two kinds of building centers -- those that are set up by NGOs through HUDCO loans and government support, and those that are started by private entrepreneurs. The latter kind are few and ABC is one such building center which was started by Mr. Anil Laul, who was the chief consultant of the NBC before the birth of the ABC. It is yet to be formally recognized by the HUDCO and runs on a self-sustaining basis.

4.2.1 Low Cost

One of the most crucial aspects of any housing scheme for the poor is its affordability by the intended beneficiaries and also the cost recovery of the project by the government. The lower the cost of the project, the greater is its affordability and easier is the cost recovery. The initial project cost was estimated by the Public Works Department (PWD) at US\$ 3.5 million (Indian Rupees 140 million)²⁰ as merely the cost for land development but the NBC estimated the total cost of the project (based on their own plan and design) at US\$ 4.5 million (Indian Rupees 180 million). This figure includes the cost of infrastructure, such as roads, water supply and drainage, decentralized sewage disposal, street lighting, horticulture and the skeletal unit (support structure and the roof). The cost of land was not included. Land is being provided by the Forest Department of the Delhi Government, which is the land owning agency of the lands being cleared-the southern Ridge. The estimated cost as per the Engineering Department of the SJJD using the conventional system was US\$ 7 million (Indian Rupees 280 million). These figures are based on the report published by NBC, *Resettlement scheme of squatters from southern ridge to Jaunapur, Mehrauli* (1997).²¹

The major chunk of the funds is provided by the Forest Department of the Delhi government; partly by the Delhi government; and a small amount by the beneficiaries themselves. Each beneficiary family is required to pay US \$125 (Rs. 5000). Table 4.1

²⁰ Figures based on 1996 estimates when 1 US \$ was equal to approximately 40 Indian Rupees.

²¹ Anangpur is a new building center which was started by the former chief consultant of the Nizamuddin Building Center (NBC), Mr. Anil Lul. The project is now handled by the Anangpur Building Center

shows the break-up of the costing mechanism. Thus, whereas the cost per unit using the conventional approach would have been US\$ 2000 (Rs. 80,000), NBC's proposal reduced it to US\$ 1100 (Rs. 44,000) (NBC 1997).

Table 4.1 Break-up of resources

Resource	Contributor	Per dwelling unit	Total (4000 units)
Land	Delhi Government	61 sq.m	61 acres
Development funds	Ministry of Forests, Delhi State	Rs. 29,000 (US\$ 725)	Rs. 116 million (US\$ 2.9 million)
	Delhi Government	Rs. 10,000 (US\$ 250)	Rs. 40 million (US\$ 1 million)
	Beneficiary family	Rs. 5000 (US\$ 125)	Rs.20 million (US\$ 0.5 million)

Note: Table takes into account an additional 500 families that were added during the interim period between the initial survey of 3500 families and the publication of the table.

Source: Nizamuddin Building Center. 1997. *Resettlement scheme of squatters from southern ridge to Jaunapur, Mehrauli.*

Apart from paying the small sum, beneficiary families also contribute labor, and material for the walls, which will be transplanted from their existing dwellings. The Government is to assist these families with the transport of materials. This helps in minimizing costs substantially and is also the core principle of self-help. Cost reduction has also been achieved through the incorporation of a number of innovative, non-conventional yet environment-friendly ways of planning and building. These are discussed in the following paragraphs.

4.2.2 Site selection and site planning

The site that was selected for the resettlement is in an area that is considered wasteland by the development authorities. It is considered wasteland primarily because it is a rocky

(ABC). Initially it was the NBC, which was responsible for all activities concerning the project but now it is the ABC. Use of one or the other name indicates the phase being referred to.

and hilly (there is a difference of 32 metres, about 110 ft, between the points of highest and lowest elevations) tract with a little shrubbery as vegetation. It also lies outside the area served by municipality water and drainage. Parts of the site, and areas around it, either were or are still quarried for stone that is used for construction.

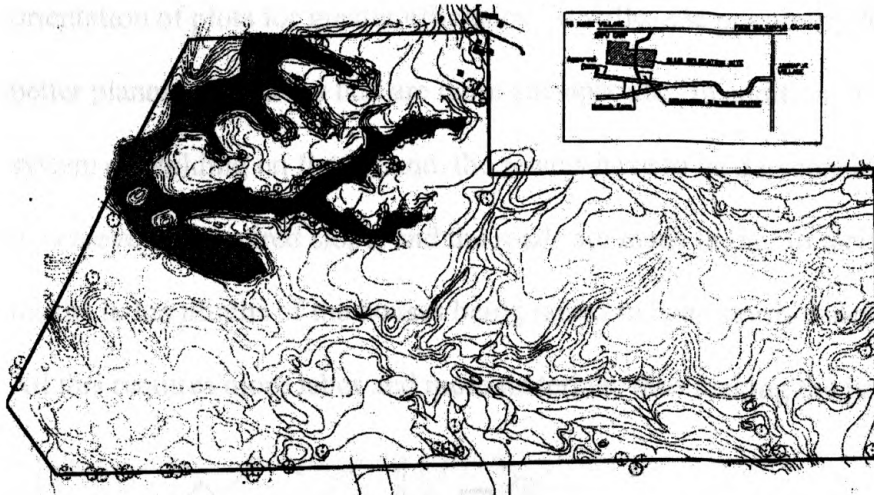


Figure 4.1 Site plan showing contours.

Source: Nizamuddin Building Center. 1997. *Resettlement scheme of squatters from southern ridge to Jaunapur, Mehrauli* (Project proposal).

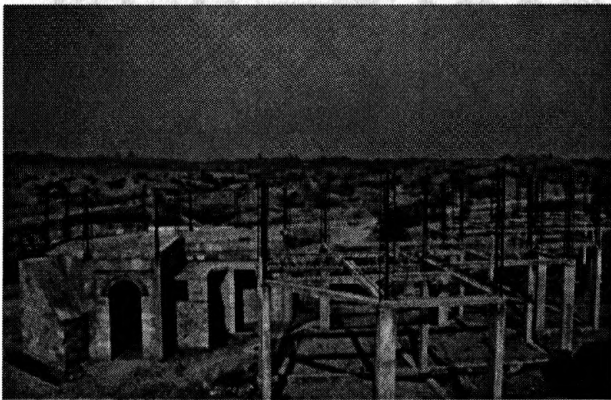


Figure 4.2 View of the site (Note the undulating terrain).

Source: Author

The deployed planning strategies seek to remedy some of the fallacies of contemporary planning styles – for instance, the tendency to build on flat land or flatten the land to build. Another flaw, as per traditional planning methods, is that services and sewer

systems are made to run parallel to the streets in order to standardize construction and make it faster. Streets require very less slope as compared to the slope required for efficient sewage disposal. However, this poses certain limitations. The orthogonal pattern of laying out streets and services naturally gives rise to the back-to-back, linear orientation of plots for greater efficiency. It stifles the possibility for innovation for better planning solutions that are more site-specific. In addition, in the conventional system of building on flat ground, the sewers have to be dug considerably deeper in order to achieve the required slope, and the roads are made higher to facilitate drainage. This results in the plinths of the houses being raised to keep storm-water from getting inside. All this requires more labor and more materials, thus making the process more expensive.

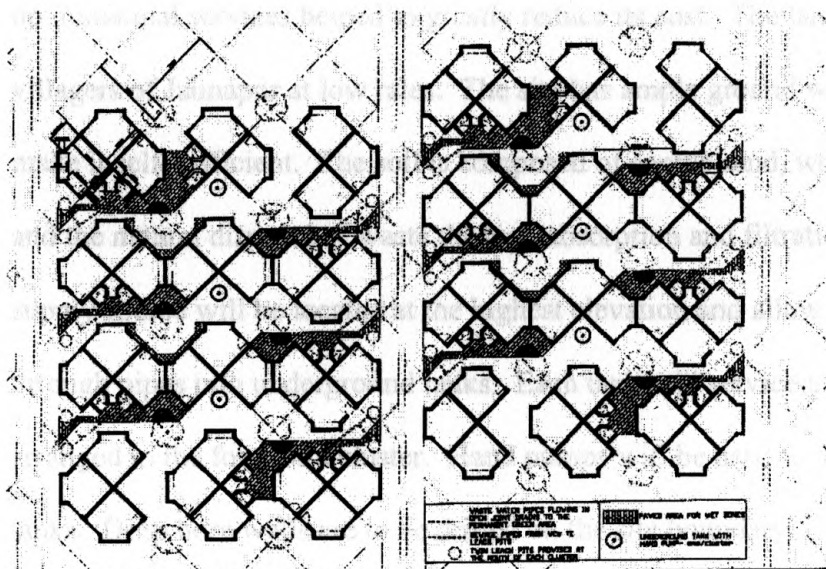


Figure 4.3 Cluster level plan showing arrangement of units around courts.

Source: Nizamuddin Building Center. 1997. *Resettlement scheme of squatters from southern ridge to Jaunapur, Mehrauli* (Project proposal).

Traditional site and services projects in the Third World follow the standardized model and, hence, they turn out to be unaffordable to the poorest sections of society. A centralized, bureaucratic approach delivering housing through established blueprints for implementation is not sensitive to realities of the people's demands, aspirations and

budgets. Site and services projects have been unsuccessful in many places since they increase people's dependence on the state for the provision and maintenance of 'self-help' housing (Sinha 1990, 42).

The project planner in an interview pointed out how traditional settlements, be it ancient Greek, Roman, or Indian, and even the early British towns in India were always located on high ground – based on the peculiarities of terrain, availability of ground water, and waste and sewage disposal. This concept has been followed in the Jaunapur project.

The site's undulating and rocky terrain, and its official classification as a wasteland with no municipal services helped to greatly reduce its cost. The land was bought from the villagers of Jaunapur at low rates. The site has ample ground water that is enough to make it self-sufficient. The soil is composed of coarse sand, which helps in percolation, and the natural disposal of waste through absorption and filtration. The central water supply source will be located at the highest elevation and allow water to flow by gravity through pipes into underground tanks. Each tank will service a group of dwellings arranged in the form of a cluster. Hand pumps will be used to draw the water out of the tanks. Deep bore wells are to be drilled on the site boundary. The considerable distance between the ravine (which forms the catchment area on the site) and the wells will help in the filtration through six water channels before recharging the cavities of the bore wells (NBC 1997).

The waste disposal system is also cost-effective and ecologically sensitive. A significant cause of pollution of water sources in cities is sewage. Conventional centralized systems are also very energy intensive and expensive. In Jaunapur, the main streets would follow the natural course of water as per the lowest drainage levels, while the houses would be placed on the ridges. These would be fed by secondary streets, which would in turn be fed by the courts in the dwelling clusters. Drains will run alongside these streets and they will carry waste water from baths, kitchens, and also the surface run-off. A particular feature is the separation of the waste coming from the water closets and waste water from all other activities. The waste from the water closets will be taken to leach pits. Each group of clusters will have a separate leach pit. This is more efficient and manageable than a common treatment facility for the entire site. Water from the leach pits, after the solid waste settles down, will gradually be allowed to seep through the soil and reach the catchment area, getting filtered and treated naturally. The drains will be permanent but will not be impervious in nature. The lining material will be stone and will have open joints to facilitate the absorption of water by the soil, and its return to the catchment area for recharging. A self-sustained, low-cost, recyclable solution, hardly dependent on mechanical systems, is thus created (NBC 1997).

4.2.3 Material and construction

All over the world, buildings are built on the ground level or below it. In Jaunapur, the

above ground level is 100 feet above sea level. The ground level is 100 feet above sea level.

4.2.4 Material and construction

The material used for the construction of the buildings is brick and concrete. The construction is done in a way that the buildings are built on the ridges. The main streets are built on the ridges and the houses are built on the ridges. The drains are built on the ridges and they will carry waste water from baths, kitchens, and also the surface run-off. The waste from the water closets will be taken to leach pits. Each group of clusters will have a separate leach pit. This is more efficient and manageable than a common treatment facility for the entire site. Water from the leach pits, after the solid waste settles down, will gradually be allowed to seep through the soil and reach the catchment area, getting filtered and treated naturally. The drains will be permanent but will not be impervious in nature. The lining material will be stone and will have open joints to facilitate the absorption of water by the soil, and its return to the catchment area for recharging. A self-sustained, low-cost, recyclable solution, hardly dependent on mechanical systems, is thus created (NBC 1997).



Figure 4.4 . View of the internal streets (Note the use of concrete and stone slabs. Easy access to drains below is provided at regular intervals).
Source: Author

Catchment areas (spread beyond the site as well in our case) are usually good reserves of moisture due to the abundance of ground water. One of the proposals is also to encourage social forestry²² around this area by planting indigenous species like Kanak, Champa, Neem, and Pipal to name a few. These plants are well adapted to arid climates and require less moisture, and their parts are used to make a variety of traditional household products. Their most crucial use, however, is their ability to digest and break down the complex organic fat molecules that are found in waste water (due to the presence of soaps and detergents) into simple organic molecules that can be easily decomposed.

4.2.3 Materials and construction

All over the world, traditional architecture and planning represents vernacular styles that have evolved over centuries due the prevalence of wisdom gained through experience.

²² Social forestry schemes were introduced by the Government of India for restoration/rehabilitation of ecologically and environmentally degraded areas through tree plantation in association with agri-crops, on under-used lands and wastelands etc. This endeavor also holds promise to fulfill the overall national objective of raising the land base biomass productivity. In many areas, communities manage it themselves and it provides an additional source of income to the poor.

Before the growth of today's modern, technology dependent societies, every geographic region, due to uniqueness of its climate, natural resources, terrain, and vegetation-all of which are interdependent, necessitated a particular way of living. This *way of living* and the idiosyncrasies of societal behavior helped to create, what we call as *cultures*. Today development is characterized by the standardization of planning, design and construction methods to a large extent, and the obliteration of traditional wisdom. India is also a victim of the standardization syndrome. The *international style*²³, as well as Le Corbusier's style-of exposed reinforced concrete (RCC) structures and brickwork, have had a tremendous influence on Indian architecture. The ubiquitous building with a RCC structural frame and brickwork, is representative of urban Indian architecture of the second half of the twentieth century. In India, RCC and brick are the still the most popular building materials as compared to other contemporary materials like steel, glass, and aluminium (in the west), mainly because of cost-effectiveness and the absence of a prefabricated materials industry. Even though an RCC house is beyond the means of most poor people, the paradox is that, that is exactly what the poor desire. This is the fallout of state provided housing changing people's expectations of a house. The desired model becomes the middle-class, capital-intensive house built to last many years. The labor-intensive, high maintenance, temporary kind of housing is not what the poor want – it is associated with rural and squatter communities (Sinha 1990, 40).

²³ According to Webster's Third New International Dictionary, it is defined as functional architectural design employing the latest of building techniques and avoiding traditional or regional influences.

Lessons from previous experiences with site and services projects has shown that in many instances, the residents cannot build the complete house in brick and concrete as envisaged due to a paucity of funds. The RCC roof especially, takes long to be erected. Having kept these things in mind, the Jaunapur project aims at reducing costs by using non-conventional materials and innovative techniques, but at the same time providing each house with the permanent structural skeleton including the roof. The skeletal system consists of plinth beams, structural framework of columns, and funicular shell roofs. The suggested material for the walls is hollow core concrete masonry blocks that will be produced on site. Complete toilet cores and services like sanitary lines, roads and paths, electrification and landscaping will also be provided. Cost reduction has been achieved in the following ways (NBC 1997):

- Prefabricated welded trussed girders have been used for the RCC structural framework in the plinth beams, columns, and tie beams. As compared to conventional RCC beams and columns, these are much easier and faster to construct, and use much less steel for reinforcement, thereby yielding cost savings.
- The roofing system of funicular shells is made from waste stone. A funicular shell is the equivalent of an inverted three-dimensional 'catenary' developed on a rectilinear base. The shells are made in situ with stone waste and brick masonry, and demoulded every 48 hours. Costs are minimized (as compared to the conventional RCC roof) by the elimination of steel, using waste stone and brick, and yielding a pleasant surface that precludes internal plastering.
- The hollow core concrete blocks that have been used for walls in the pilot units will be produced on site. The simple technology (hand-operated moulds) has been

developed by the NBC and will be offered free of cost. Use of stone waste and aggregate gives a pleasing permanent finish. The advantage over using a conventional brick is that it is much faster to prepare and requires much less production space- at a comparable cost. The residents can use any other material that they want for the walls. If they cannot afford a permanent material, they can use the temporary material that they are using now until a point where they can.

- Stone-faced cement paving panels and Jack arch RCC drain covers lend aesthetic appeal while minimizing the use of steel and cement, deriving the strength from the shape.

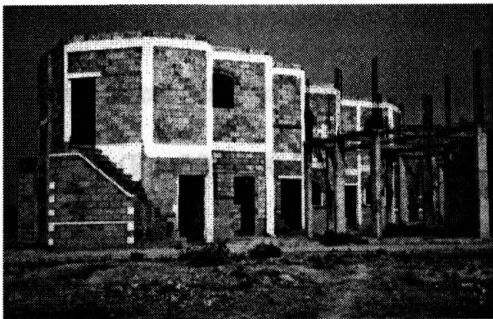


Figure 4.5 View showing the exposed structural framework and the use of hollow concrete masonry with stone aggregate finish.

Source: Author



Figure 4.6 Close-up of the structural framework. (Note the use of slender prefabricated welded trussed girders as reinforcement-cheaper than conventional reinforcement).

Source: Author

Most of the stone that will be used for the project will be quarried from the site itself.

The stone waste left after constructing the foundations, roads and other similar purposes can be used in making the roofs and masonry blocks. By using simple innovations in techniques, reducing the number and quantities of materials to be imported or transported, and developing apt specifications, major cost reduction has been achieved.

The main construction material, stone, is in abundance on the site itself and those who wish to use it for their walls. A small portion of the site can be quarried to meet the

demand. Though the use of innovative techniques and materials have helped to cut costs, there are other less apparent yet very useful environmental implications – conserving resources, reducing the use of energy-intensive products like high quality steel and also lessen pollution.

4.2.4 Maintenance

Maintenance is an important issue in state aided projects and it is one department that makes cost recovery significantly difficult in the traditional system of housing delivery. Maintenance costs invariably keep on escalating due to a variety of reasons. According to the project planner, initially the Delhi government had made an estimate of US\$ 750,000 (Rs. 300,000,000) for a period of three years, as a deposit required for the maintenance of the project which was brought down to US\$ 200,000 (Rs. 80,00,000) by the NBC. The project planner added that the aim was to encourage community participation for the management due to the simple systems employed and that detailed calculations, taking every item into account, have shown that the households by just paying US\$ 1 (Rs.40) per month can take care of the maintenance themselves.

Maintenance costs soar due to reasons like improper design (load-wise) of roads, and improper supervision during installation of mechanical services, apart from faulty cost estimates of the buildings, and of course inflation. In the Jaunapur project, some of these possibilities have been eliminated. The roads, for instance, need no maintenance. They are to be constructed out of rough marble and granite, and will be tougher than

conventional asphalt roads. Since the sewage system is also localized, the only maintenance required is the cleaning of the pits. The water supply system discussed earlier is also self-sustained and depends on eight tube wells that will be coupled to always provide a standby. Simple maintenance work of such nature can be undertaken by the residents themselves with minimal training. Electricity is the only department that cannot be internally handled by the residents themselves.

4.2.5 Employment

One of the widely criticized shortcomings in state aided self-help housing for the poor is that they are often transplanted to areas outside the city, away from their sources of employment. Planners and designers have found it very difficult to recreate the same kind of existing employment opportunities in relocation projects. A review of various basic housing projects all over the world revealed that the main project components that have been used to create employment and generate income in communities are the following: a) employment in the project itself; b) attracting industries and manufacturing enterprises to the project; c) providing credit and technical assistance to small-scale enterprises; and d) skills training (Laquian 1983, 88).

According to Burgess (1996), housing is a means of subsistence that is necessary for the reproduction of the labor force and is therefore a good whose cost enters directly or indirectly into the production of all commodities. People who live in squatter settlements are mostly rural migrants who come to the city seeking employment avenues. They usually squat around those areas where they find employment – it eliminates travel time

and expenses. In time, however, a lot of other small-scale jobs and services are born in the settlement, which comprises what is known as the 'informal sector'. It is almost like a miniature version of the formal services and employment network that exists in the cities. The disruption of such a network is difficult to stitch together in a new location immediately.

The Jaunapur project is fortunate to a degree in terms of recreating the employment structure. Most of the people who are going to be moved work as *kumhaars* (potters) or on small kilns that have come up on the ridge. They mostly sell their wares through temporary shops that are set up on pavements. The site of their relocation is very close to the road connecting Delhi to Gurgaon (a fast developing industrial city in the neighboring state of Haryana). This stretch is dotted with numerous farmhouses that belong to the rich and is also becoming a destination for a lot of ethnic handicraft products like earthenware, clothing and handmade paper products. The resettlement of the people will therefore provide them with a market that is tailor-made to suit their skills. Many women living in squatter settlements also seek part time employment to bolster the family income. They generally work as construction laborers or as domestic help in middle and upper class households-if they are close to residential areas. The presence of so many farmhouses near the site offers good employment prospects for some women. As part of a growing larger social change, it is becoming a trend in Delhi for the women from rich families to start some enterprise of their own, which is usually small-scale in nature, dependent on cheap labor. Some of these enterprises are producing and marketing home-made food products like pickles and snacks, fashion clothing involving traditional

embroidery and motifs, ethnic furniture and other similar businesses. These small businesses, many of which are export oriented, are fast growing in number and offer employment opportunities to the people who will be relocated. It should turn out to be a mutually advantageous situation – cheap labor for the entrepreneur and good jobs for the poor. Though it is yet to be seen, the prospects for economic and social development for the people to be relocated seem promising.

Another advantageous factor is that the site is not very far from the major commercial hubs of the southern part of Delhi, and it is very well connected by bus. The main form of public transport in Delhi is the bus, which is very cheap²⁴, and a lot of private operators also operate buses on city routes under permit from the Delhi Transport Corporation. Banks offer loans to private operators to buy buses. Some of the people in the village of Jaunapur already operate such buses and the relocation of 3600 families will definitely provide the incentive for more people to follow suit. This will help those people who have jobs in Delhi to commute regularly in buses that originate and terminate from the place where they stay. Thus, most of the employment indicators associated with successful housing projects seem workable in the Jaunapur project.

4.3 The achievements of the project

The project was stalled shortly after it took off and so it is difficult to assess whether the intended goals of the project would actually have been realized. The concept behind the project is definitely laudable and it has been internationally recognized as an innovative step towards the design of human settlements by the UNCHS, and also by the Hanover

2000 Expo. One encouraging development, if not an achievement, was that an agency like the NBC, which is dedicated to the cause of making housing and building technology more accessible to the poor, was given the freedom to plan the design all aspects of the project. In this aspect, it enjoyed a similar advantage like the slum networking projects where the project details were devised by a single consultant. Very often, in government housing projects, several different public agencies are involved in the designing of different aspects of the same project and due to the nature of bureaucratic officialdom, there is not much coordination or dedication to the project, resulting in inconsistencies, incompatibility and insensitivity in the product. When the onus of creating a solution for such problems lies on a single body with the requisite skills, the outcome can definitely be expected to be more fruitful than a collection of partial solutions. This, I feel, is particularly noteworthy because of the case being in the capital, New Delhi, where the development agencies have a reputation of being notoriously bureaucratic.

The NBC, though under the umbrella of the HUDCO, due to its mission and

The other notable achievement, which has contributed to slashing the cost of the project, is the choice of picking a wasteland for resettling the squatters. This called for clever design solutions to overcome the challenges posed by the terrain. The design of a gravity based self-sustaining water and sewage system was a crucial factor towards the crystallization of the design. The dependence on city agencies for water supply and sewage would have definitely prolonged the beginning of the implementation phase by a few years. By making it an independent settlement, it also eliminates the problem of maintenance of infrastructure that is provided by public agencies. On paper, at least, it appears not just to be an ingenious solution to several problems but also a feasible one. It

²⁴ Fares depend on distance, with a maximum fare of Rs. 5 (US\$ 0.125) on regular city buses.

remains to be seen, however, whether the touted solutions would actually deliver the goods, and what additional hurdles crop up once the settlement starts to function.

4.4 The shortcomings

The biggest shortcoming of this project is that its implementation remains unfinished, thus reducing the project to a promising proposal. After having studied the project details and the simplicity of its approach, one wonders why the progress of a project of this nature should ever be arrested. This is even more perplexing when one sees the minimal involvement of different government agencies – usually seen as a cause for clash of interests. A detailed discussion with the project planner, Anil Laul, and a review of some of his articles helped in understanding why without organizational change in the government agencies, such projects will more likely be doomed than succeed.

The NBC, though under the umbrella of the HUDCO, due to its mission and organizational structure was meant to function like an NGO. According to Laul, however, like several other NGOs in India, it is actually a GONGO or a Government Owned Non Government Organization. NGOs were encouraged to participate in the field of development for the poor to overcome the sluggishness and lack of reach that are representative of government agencies. The same NGOs have to deal with the government on a continuing basis and their most immediate need is to obtain a parcel of land and a building to operate from. Next, they have to rely on funds from the government regularly. This is more so in the case of development NGOs. It is, actually, because of these needs that NGOs transform into GONGOs. Several NGOs are headed

by retired senior government officials or their wives, who, apart from their experience and credibility, are able to muster funds from the inefficient government system. This helps the NGOs wriggle snake their way around the bureaucratic hassles described earlier, since the official knows the intricacies of the system. Inadvertently, many GONGOs fall prey to the same ills that they were supposed to remove (Laul 2000).

The Jaunapur project, like all other slum related projects, is the responsibility of the SJJD. The SJJD is placed under the Municipal Corporation of Delhi (MCD). Prior to that it was placed under the Delhi Development Authority (DDA), the main land owning body in Delhi, so that land could be made available to the SJJD directly and delays could be avoided in slum rehabilitation projects. It was, subsequently, transferred back to the MCD by the Delhi Government because the SJJD was unable to implement any project unless the MCD provided basic services in the parcels of land. Making land available was probably considered an easier task than providing the services. In this project, the financing was to be met through funds provided by the slum dwellers, the Forest Department and the Government of Delhi. The two government agencies are the land owning agencies whose lands are being freed of encroachment. The sums of money have been transferred to the SJJD's accounts but the project has not taken off because the SJJD cites a lack of funds.

According to Laul, the SJJD is the real cog in the wheel, and it deliberately delays projects because it has a vested interest in doing so. The sums of money that are deposited by land owning agencies with the SJJD lie in fixed deposits in banks accruing

interests. The interests provide a source of funds for the SJJJ as long as the projects are not implemented and are even used to pay salaries of its employees (Laul 1999). The SJJJ is habituated to prolonging each project on various grounds. For instance, it delayed the Jaunapur project by nine months to verify the ability of the proposed water supply and sewage treatment system to avoid contamination. It involved the services of the National Environment Research Institute (NERI) at a cost of Rs. 30,00,000. Then it also raised the issue of providing at 300 liters of water per capita in the project, as opposed to the Delhi average of under 100 liters per capita per day. At the time the site visit was undertaken, a survey of ground water availability was being undertaken by SJJJ which involved another Government Agency, the Ground Water Board. Several months were expected to elapse before a decision would be made. All these tactics of procrastination help to hike up the cost of the project, which is even more pronounced in Delhi – a city with very high real estate values, leaving the SJJJ with inadequate money to finance the project and thereby asking for more. The SJJJ has not even paid the dues to the contractors for the pilot project. In addition, when several years go by without implementation, the population in the slums to be rehabilitated also increases significantly. Thus, fresh surveys have to be undertaken and the almost everything has to be reworked – buying more time for the agencies that prefer stagnation (Laul 1999).

4.5 Summary

The Jaunapur Project aims for environmental, financial and employment sustainability through the implementation of the resettlement project. It appears to be a well-developed plan but, unfortunately, its progress in fulfilling the desired goals cannot be monitored as

it was stalled shortly after the construction of some pilot units. The stalling is due to the intransigence and stakes of certain government departments. The important lesson to learn is that housing for the poor in the Third World is a very complex matter. It has several control factors and involves many players. Successful implementation of a project requires cooperation, concession and commitment from all involved parties.

The project reiterates facts that are well-known as traditional and cultural wisdom. It has been theorized by experts, on Third World development, for quite sometime now. To shift from the conventional *modus operandi* is always a polemic proposition due to the hardened bureaucratic structures of governments in developing countries. Nevertheless, it is possible but it requires a willingness to do so and there is no guarantee of success. Every country, region, and case is unique owing to its history and culture. Sustainable planning and design endeavors have to look for characteristics from within the society that can enhance the possibility of creating housing systems that are simple yet efficient and affordable. The Jaunapur project is a good example of such an exercise, as well as a good example of non-implementation of well-intentioned projects. It would be unwise to imagine that simply replicating the Jaunapur model in another context will be as apt.

CHAPTER 5

FINDINGS AND CONCLUSIONS

5.1 Summarizing the findings

The preceding chapters give us an adequate feel of the housing policies and housing delivery systems at work in India today. In particular, it helps to appreciate the substantial involvement of NGOs in making decent shelter more accessible to the poor through a variety of efforts. A study of the evolution of India's housing policies over the years has enabled us to appreciate that today, probably, there does exist a sense of urgency and willingness in the state's efforts to improve the living conditions of the urban poor. Considering the fact that there did not exist a structured National Housing Policy prior to 1987, let alone beneficial policies for the slum dwellers, the steps taken by the government thenceforth are surely creditable and augur a sense of optimism. From 1987 to the spread of the slum networking projects across the country – within a span of ten years – reflects celerity and alacrity on the part of governing bodies at various levels to at least acknowledge the severity of the situation. It also shows acceptance, by the state, of the necessity to involve various players, such as NGOs and the corporate sector, in providing housing for the poor. In particular, the state's acceptance of the dire need to invite the private sector in the housing game for the poor and taking encouraging steps to enable the same is a welcome change. This is amply evident from the policy statement²⁵ of the Ministry of Urban Development (Government of India) which states that,

“...no significant headway can be achieved without *massive participation*²⁶ of the private sector. This called for creation of an enabling environment by way of legal and regulatory reforms and fiscal

²⁵ Available at <www.urbanindia.nic.in>

²⁶ Author's emphasis

concessions to encourage the non-governmental sector to take up land assembly, housing construction, and investment in infrastructure services.”

It is also important to note that the state is willing to allow the non-government sector to take up land assembly housing construction. The unavailability of land for housing projects for the poor, or the heavy control of the state over available land is one of the major reasons for failure in such projects. This is the key drawback in the Jaunapur project as the government department (SJJD) has control over the land and the finances and the NGO (or GONGO) responsible for the design and implementation of the project has no authority over these issues.

Of the two projects studied, the slum networking project in Ahmedabad has definitely been more successful than the Jaunapur project, simply because, at least, a part of the project has been implemented to the fullest and the results are there to see. The Jaunapur project continues to have the potential to be a successful project, but is not being completed. However, even the slum networking projects have not escaped criticism, in spite of the general notion of success that prevails about them.

5.1.1 The slum networking projects and the criticisms

Apart from the shortcomings that were mentioned in the earlier chapters that discussed the case studies, there has been considerable external criticism from different quarters about these projects. The slum networking projects have attracted a lot of attention due to their ingenuity, external financial involvement, new concepts, and widespread national and international acclaim. Needless to say, they have also attracted criticism. Noteworthy among these are those that have come from academicians and scholars.

Specifically, the slum networking projects have been severely criticized by Gita Dewan Verma (Verma 1997, Verma 1998). She aimed to expose the realities that existed behind the mystical picture of these slums, vindicated by international awards, that was portrayed in various newspapers, magazines, and journals. She undertook impact assessment studies of three slum projects in India, including the Indore slum networking project, on behalf of the British Government's Department for International Development (DFID, formerly the Overseas Development Administration or ODA), which funded those projects. The Ahmedabad slum networking project was not funded by foreign aid, but instead it had private sector funding. Nevertheless, in terms of the physical and implementation details, it resembles the Indore and Baroda projects. Thus, the drawbacks of the projects studied by Verma can reasonably be surmised to be attributable to the Ahmedabad project also.

Verma argues that actually the Indore project was a failure. Based on her impact assessment study, she says that the project failed to live up to its expectations and fell short of the targets that it had set for water supply, sewage connections, landscaping and even road improvements (Verma 2000). She attributes some of these failures to 'flawed assumptions' about the probability of the slum dwellers accepting the changes, and some to the perennial problems of corruption, procrastination and even a lack of willingness to perform on the part of the government officials in charge of administration and implementation. However, she acknowledges that some progress has been made in the fields of community development but emphasizes that those are due to programs different from the efforts of the slum networking projects. A detailed study of her criticisms will

reveal that most of the problems that she mentions are due to lapses in implementation, which is the responsibility of the public authorities. This is not to discount the fact that design and conceptual flaws were also found. However, it is important to remember that the Indore project was the first slum networking project and so it is reasonable to not expect a hundred percent fulfillment of the goals. It should be looked at as a learning step, and the lessons learnt from it should be applied in subsequent projects. Thus, looking at the results optimistically, I feel that despite its failures, the slum networking projects on the whole represent a powerful concept and tool, which when implemented properly can definitely yield favorable results. Interestingly, and also ironically, based on the findings of the team led by Verma, the DFID considers the project impacts to be very successful. The DFID has the following to say (DFID 1998):

“In summary, the project impacts were very significant in terms of improvement in the ‘quality of life’ and/or environmental dimensions of urban poverty. The project has been much less successful in addressing the problems of survival and security, e.g. livelihoods or income, ill health and debt which were also identified as important dimensions.”

The Government of India has embarked on a national program for urban renewal to enable and propagate sustainable environments with technologically appropriate infrastructure development. This program is to encompass several different aspects of the urban environment and all of these are intended to have a special focus on the poor and disadvantaged communities. The Government of India has taken notice of the slum networking projects and it has decided to implement slum networking in various cities through the Mission for Application of Technology to Urban Renewal and Engineering (MATURE) which is a sub program of the national urban renewal program. The executing agency for MATURE shall be the Department of Science and Technology,

Government of India. Direct funding is to be made available by the United Nations Development Program (UNDP) and the funding shall be used to initiate and demonstrate pilot projects in the cities of Allahabad, Almora, Mumbai, Bhopal and Delhi to begin with. Pilot projects will then be extended to two more cities in each geographical location. The seed funding and the pilot projects will be used to leverage other sources of funding from stake holders, the private sector, government departments, and financing agencies. The emphasis will be to identify and adopt appropriate technologies and design methods to create information databases, and to utilize them by innovative techniques to derive the goals envisaged in the project (DST 1997). The MATURE program realizes the need to involve several parties in the process to achieve the goals. One of the most interesting and promising elements in its mission work plan is that it identifies and lists NGOs as the first in a list of partners for the pilot projects. It signifies a distinct change in attitude from the times when NGOs were listed last, if listed at all.

Another positive outcome of the government realizing the effectiveness of slum improvement projects involving NGOs and the private sector as key players is that the Government of India is working towards creating a National Slum Policy. This was stated by the Union Minister of State for Urban Development, Mr. Bandaru Dattatreya, and quoted in the newspaper, *The Financial Express*. According to the minister, the draft of the policy had been sent to all the states, municipalities, and NGOs for suggestions to give it a final shape (Indian NGOs.com 2000).

5.1.2 The lessons from the case studies

After having analyzed the case studies, a few points stand out as being characteristically responsible for the successes and the failures. These can very well be considered to be the lessons to be kept in mind for improving the housing process in the future. The lessons can be listed as the following:

- It is apparent that the government alone cannot solve the housing problems of the poor. The involvement of the NGOs, the private sector, different government agencies and even foreign aid donors in the housing process is imperative. The presence of several players, however, causes frictions due to various reasons which hamper the execution of the project. This was amply evident in the both the case studies. The need is to create an implementation environment where the roles of each player are clearly laid out, and the failure of any party, or individuals of a party, to not execute their roles in the spirit of the agreement should have punitive consequences.
- The involvement of a single entity in the conceptualization and design of a project yields better results than the presence of several entities, as is the case in most government led projects. In both the projects studied, the design and planning of the projects was the responsibility of a single agency which helped create highly innovative, non-traditional, yet effective solutions. The involvement of an autonomous consultant, aside from being more adept at the job, also ensures dedication towards the successful materialization of the desired goals.
- The need to get the private sector involved is undisputable. The private sector can play a major role in providing much needed finances and technical and

managerial expertise. Whenever the government agencies are involved in financing, the results usually are not satisfactory. This is also obvious from the Jaunapur experience. Private sector entities usually consider this as charitable or benevolent work and this waxes their overall corporate image. Apart from that, incentives in the form of development rights, tax benefits and other such concessions should be made available to the private sector to make their involvement a more inviting prospect.

- Unlike what has usually been the case, it is not necessary to depend on foreign aid for housing projects for the poor. Both the case studies have demonstrated that it is very much possible to raise funds from the available sources. The Ahmedabad project proved that not only is it possible to generate considerable funds from the beneficiaries, provided they are stakeholders, but it is also possible to do so in very short periods of time as compared to the routing of funds through different rungs of the hierarchy of a bureaucratic government.
- One of the keys to successfully housing the poor is to keep costs as low as possible. Low cost was the major contributing factor in both the case studies being regarded as successful. The mantra behind the low cost was the design of appropriate low cost technology, using locally available materials, that is often unconventional. Constant innovation and research is necessary on the part of agencies responsible for planning and designing settlements for the poor, to constantly challenge existing technology with improved and cost-effective variations.

• Community organization and participation is paramount if any slum development project is to succeed. Even Diane Diacon²⁷ averred that the one thing that she would hope to see more in the future is increased involvement of community-based organizations. For this to happen, it is essential that the slum dwellers understand the process of development and the benefits that they shall get eventually. This understanding is necessary if they are to trust the government's urge to intervene in the problems of their area. NGOs are the most effective tool in building this trust through the community organization and explaining of the motives behind the programs. Community organization and mobilization of community resources was crucial in starting and sustaining the Ahmedabad project. Even in the Jaunapur project, in spite of the fact that the project is stalled, and no people have been moved yet to the new site, there is evidence of strong community feeling which makes one feel optimistic about the eventual outcome of the project. The intended beneficiaries of the Jaunapur project, upon the insistence and efforts of Anil Laul and team and after the intentions of the project were made clear, had organized a protest march and requested an assurance from the Additional Commissioner of Delhi. In the light of delays, they wanted to be assured that only the original intended beneficiaries be the eventual beneficiaries also.

²⁷ Deputy Director of BSHF and author of several documents on slum networking. She mentioned the need for increased community involvement in reply to the author's query about the changes required to improve the present state of affairs.

5.2 The future: Suggestions for enhancing NGO participation and efforts

The lessons learnt from the experiences of the case studies as well as those from similar projects in other parts of India, which were gathered from the review of literature for this research, help in framing a set of suggestive measures for making the role of NGOs in shelter related activities for the urban poor more fruitful. Most of these suggestions imply slight changes in postures of the different players and not any radical changes. This is because the importance of the various players, and of the contributions that each can make, is fairly well established and well accepted. Nevertheless, the gaps between intentions and implementation continue to hamper the successful outcomes of projects. Some of the suggestions that are listed hereunder seem to stem naturally from the assessment of the housing policies and analysis of the projects. These are:

- 1. NGOs need to be smart and not hostile in dealing with the state and government agencies.** As Sen (1992) found in his research on NGOs involved with housing in India, the strategy of pressurizing the state to foster change has had little effect in India. The NGOs that are willing to take advantage of positive elements contained within state policy are likely to succeed in producing more projects or expanding the scope of existing projects. Politicians are wary of NGOs because they play an important role in forming opinions among the poor and also because they often have independent access to funds for development (Center for Science and Environment 1998). Displeasing the local politician can often have detrimental effects on a project because politicians have substantial control over government officials. In the case of an NGO in Bombay, having a good rapport with the government officials made conditions for development much more favorable – after it stopped confronting

the government (Desai 1995, 274-276). Thus, whereas it is very important for NGOs to build up public opinion and organize communities, they should do so with tact – without taking an inimical stance against the government.

- 2. There is need for developing an environment of trust amongst the players.** The people, the NGOs and other players have always suspected government motives or commitments. This is primarily due to the failure of governments to deliver the goods in various development projects and also due to the rampant corruption that exists in government circles. However, change cannot occur in an environment of suspicion and mistrust. The government has shown lately that, through its changing policies and their concentration on the urban poor, it genuinely wants to work towards improving the quality of life for the disadvantaged segment of society. It is true that what exists on paper is different from what gets done, but it would not be prudent for the other parties to not come forward and utilize the winds of change to their benefit. Also, it is not the government that is always to be blamed. There also exist several bogus NGOs, whose commitment is to making money and not to genuine development. Government officials tend to be suspicious of NGO motives because they feel that NGOs are not accountable to the people, as opposed to political parties and trade unions, and that they tend to misuse funds. Government officials say that several NGOs have a dubious status because they are launched by relatives of politicians or top bureaucrats (CSE 1998). This view was also shared by Anil Laul, the chief planner for the Jaunapur project who coined the acronym GONGO for such NGOs. Similarly, government officials don't trust big business houses who launch NGOs because they do so to evade taxes by benefiting from the

tax relief provisions for NGOs. This may not apply to housing oriented NGOs directly. The bottom line is that, for genuine development to take place, all players must have a genuine commitment to the purpose, and so they must clean up their acts before any positive outcomes can be expected.

3. The Government needs to relax its hold on the implementation of projects.

Experience from projects from all over the world, and not just India, have shown that governments must change their role to that of enablers of the process rather than guiding the process. They must be able to provide serviced land and other infrastructure at low prices so that housing projects for the poor can be feasible. Experts like Anil Laul (of the Jaunapur project) and Arputham Jockin²⁸ are of the opinion that, unlike what the government would like people to believe, there actually is no shortage of land – there is just mismanagement of land (IndianNGOs.com). The government should change policies that abet speculation resulting in high land prices. Mukhija (2000) has shown that a particular slum redevelopment project in Bombay was successful because the state government amended the land development regulations to enhance the potential land values and allowed the slum dwellers to share in the high development values. The Indian government has not been able to deal with NGOs properly. On the one hand, it encourages NGOs, and on the other, it makes policies that hamper their work. Many NGOs work with foreign funds. The Government of India has provisions that can be used to control any organization that receives donations. In particular, NGOs in India have strongly criticized the Department of Economic Affairs' (DEA's) decision to route all

²⁸ Arputham Jockin is the President of the National Slum Dwellers Federation (NSDF) and is also the recipient of the prestigious Ramon Magsaysay Award.

bilateral official grants through the Union budget, except in the case of those bodies which are substantially funded by the government. Under this new rule, if a major project has to be funded by an international donor, there has to be a provision for it in the Union budget (CSE 1998). Such moves definitely hamper the implementation of many well-intentioned projects. There also needs to be an institutional change in the organizational character of the government and its agencies that will overcome the bureaucratic sluggishness and intransigence. At times, it is simply the convoluted structure of governmental organization that creates impediments in the way of smooth implementation of projects.

4. **Judicial intervention to ensure successful implementation of projects.** Several projects like the Jaunapur project are run aground because one or more of the partners default on their responsibilities and commitment towards the project. In most instances, it is one of the government agencies that is at fault. There is no special legal provision that can arbitrate such disputes expeditiously nor are there any punitive measures. Undertaking a conventional litigation process to solve such disputes is highly time consuming and expensive – especially for the communities and the NGOs, and in the end it is the poor who have to suffer. Thus, special judicial remedies need to be established to prevent the concerned parties from impeding or not contributing to the progress of such projects. To some extent, the courts have also realized this need. For instance, in a landmark judgement, the Gujarat High Court directed the State Government to earmark certain land acquired under the Land Ceiling Act and frame a uniform policy to allot it to approximately 1,500 families of slum dwellers in the cities Ahmedabad and Baroda. The court put

additional pressure on the municipalities of these cities to ensure that further encroachment of vacant plots and pavements by squatters did not take place, implying that alternative land had to be made available. The court directed the municipalities, under a time bound framework of three months, to divide the city into areas with one officer in charge of each area. It is to be the officer's responsibility to prevent encroachment and the officer would be personally answerable, accountable and responsible for any encroachment (IndianNGOs.com). Thus, the court indirectly made the state government direct its municipalities to make land available for housing slum dwellers.

5. Improving networking and connectivity. Today, there are several NGOs engaged in development related projects, not just in India but worldwide. Some of these NGOs are part of a larger network of international NGOs while some of them are large NGOs that have an international presence. In today's scenario, it helps NGOs to build a network and reach out to other NGOs and to people in general to help create an awareness of their efforts. Communication technology has become highly advanced making information accessible and affordable. Unlike yesteryears, most NGOs now use phones, fax and modem-based communication on a regular basis to stay connected (Madon 2000). The projects that were studied for this research are fairly well documented and information about them can be obtained from the internet. The consultants for both the projects can be reached by email. In fact, the chief consultant for the Jaunapur project has made the details of the project available on ABC's website, which also tell about the problems facing the project. When such details are accessible to the public, pressure on the government to perform can be

expected to rise. Apart from learning and making information available to others, networking with international NGOs helps to also provide funding for projects. This is important now as it has been observed that international development aid from traditional donor agencies is on the decline (Malhotra 2000, Smillie 1997). Slum International Limited (run by Arputham Jockin) is an NGO that is working in 32 cities of India, and in 11 countries across the world. Its networking helped it get huge sums for slum development programs in Bombay. It has expressed its ability to get the required loans for a similar project in Bangalore,²⁹ if the government is willing to grant land tenure (IndianNGOs.com). This shows that if NGOs have the financial muscle, they can try to coerce the government into agreeing to some of its own terms.

NGOs have to challenge the framework within which mainstream development work takes place (Clark 1991, 235-236). However, most NGOs, being grassroots activists, are poorly equipped in research and analysis tasks, and are not confident in the macro-economic jargon of government decision makers. They must, therefore, build “alliances” with dissidents in other fields like economics, planning, and agriculture to challenge the sacred cows of development policies. Such collaboration can also provide the foundation for a compelling international movement for real change. The maxim for such a compact is the reverse of a popular saying – “Think locally, act globally”.

²⁹ The capital city of the southern Indian state of Karnataka.

6. Learning from experiences. Each project throws up unique challenges, and unique solutions are found in the course of implementation. It is important for NGOs to properly document these experiences for themselves and for dissemination among other NGOs, the government, and people in general. Past experiences constitute a vast repository of ideas for tackling problems in the future. They help in forewarning NGOs of possible problems and enable them to devise improved tactics to negotiate the possible hurdles. Development projects succeed by networking and learning from a history of negotiation, coalition and change in the behavior of NGOs in response to interaction between the agency and other organizations, be they development agencies, academics or partners (Madon 2000). An NGO called VIKAS in Ahmedabad conducted a series of workshops among slum dwellers to educate them about various aspects of slum development, to strengthen community based-organizations, and then to finally elicit the responses from the informed slum dwellers to better understand the problems of development. The findings of the workshops were documented in writing as well as visually. One of the main purposes behind this exercise was to share the findings with other partners in the development process – the government, other NGOs, academicians, researchers, and community based organizations (VIKAS 1996). Although, every NGO does not have to do what VIKAS did, a systematic documentation of the experiences of a project and the subsequent sharing of the same with interested parties can definitely help in improving the existing processes of implementation.

5.3 Conclusion

We have seen that India has come a long way since the earliest days of her impractical state-aided housing for the poor. NGOs have come to play a crucial role in the housing delivery process aimed at the urban poor. They have the potential to become powerful agents of change. We had earlier noted how the World Bank had guided India's housing policies for the poor. The policies of the World Bank on issues of poverty and the environment, in turn, were influenced by international NGOs, such as Oxfam and Survival International Agencies, based on their experiences (Clark 1991, 87-88). Similarly, the willingness of the Government of India to readjust its outlook towards the issues of the urban poor and refresh its policies is, primarily, due to the advocacy efforts of the Indian NGOs. However, due to government controls and bureaucratic hurdles, the experience for the NGOs has also often been frustrating and unfruitful. In spite of this, the participation of NGOs in housing development has been increasing steadily. The results are definitely optimistic, though they can be far better. The most encouraging aspect of all this change is that the government has accepted the fact that it cannot deal with the problem alone, and has also demonstrated a willingness to change its policies. Decentralization and sharing of powers among development partners is happening but a lot still remains to be done. The government and NGOs need to complement each other in the development process and not confront each other. While the government definitely needs to alter its posture on issues of development, NGOs should also change their *modus operandi* accordingly – to take advantage of the state's allowances. The future looks promising if the government, the private sector, and the NGOs can strike a meaningful

dialogue in the development partnership. How soon this promise takes shape, depends on how fast the players adapt themselves to the changing needs of the hour.

REFERENCES

- Anangpur Building Center (ABC), "Role of government agencies in the future development of Delhi," 1998, <http://www.anangpur.com/govt_planners.html> (19 March 2000).
- Babbie, E. 1999. *The Basics of Social Research*. Belmont, CA: Wadsworth Publishing.
- Bhattacharya, K. P. 1990. Government intervention policies in India. In *Housing Policy in Developing Countries*, ed. Gil Shildo, 93-95. London: Routledge.
- Burgess, R. 1996. "The limits of self-help housing programs". *Development and Change*. 16: 271-312.
- Center for Science and Environment (CSE). 1998. The Power Game. *Down to Earth*. 7(8). Also available at <http://www.oneworld.org/cse/html/dte/dte980915/dte_cover.htm>
- Chauhan, U., and N. Lal. 1999. Public-private partnerships for urban poor: A slum project in Ahmedabad. *Environmental and Political Weekly*. XXXIV (10 and 11).
- Clark, J. 1991. *Democratizing Development*. London: Earthscan.
- Department for International Development (DFID), "Does DFID assistance reduce poverty in India?", 7 November 1998, <<http://www.lboro.ac.uk/garnet/UrbanKaR/KAR7.html>> (2 February 2001).
- Department of Science and Technology (DST), Government of India. 1997. *Mission for Application of Technology to Urban Renewal and Engineering (MATURE) sub-programme draft II*. A program support document of the UNDP sponsored program of the Government of India.
- Desai, V. 1995. *Community participation and slum housing: A study of Bombay*. New Delhi: Sage publications.
- Diacon, D. 1997. *Slum Networking: An innovative approach to urban development*. Coalville(UK): Building and Social Housing Foundation.
- Diacon, D. 1996. Slum Networking: an innovative approach to urban development. In *Ekistics*. 376: 30.
- Edwards, M., and G. Sen. 2000. NGOs, social change and the transformation of human relationships: a 21st century civic agenda. *Third World Quarterly*. 21(4).
- Gordenker, L., and T.G. Weiss. 1997. Devolving responsibilities: a framework for analyzing NGOs and services. *Third World Quarterly*. 18(3).

- Gugler, J. 1997. "Introduction to Part V – Housing and the environment." in Gugler, Josef, ed., *Cities in the developing world*. New York: Oxford University Press.
- Hardoy, J. E. and D. Satterthwaite. 1997. "Building the future city". in Gugler, Josef, ed., *Cities in the developing world*. New York: Oxford University Press.
- IndianNGOs.com, "Slum related news," <<http://www.indianngos.com/slumnews.htm>> (6 February 2001).
- Laul, A., "The Delhi Slum and JJ Department: A misadventure into a dismal abyss," 1999, <<http://www.anangpur.com/slum.html>> (10 February 2000).
- Laul, A., "NGOs – The GONGO syndrome," 2000, <<http://www.anangpur.com/ngo.html>> (5 February 2001).
- Laquian, A. A. 1983. *Basic housing: Policies for urban sites, services, and shelter in developing countries*. Ottawa: International Development Research Center.
- Madon, S. *International NGOs: Networking, information flows and learning*. Working paper for Development Informatics working paper series. Manchester (UK): Institute for development Policy and Management. Also available at <<http://www.man.ac.uk/idpm/diwpf8.htm>>
- Malhotra, K. 2000. NGOs without aid: beyond the global soup kitchen. *Third World Quarterly*. 21(4): 655-668.
- McGee, T. G. 1971. *The Urbanization Process in the Third World*, 10. London: Bell and Hyman.
- Mukhija, V. 2000. *Squatters as developers? Mumbai's slum dwellers as equity partners in redevelopment*. Ph.D dissertation, Massachusetts Institute of Technology.
- Nicholson, L. 1995. Slum Networking: An alternative approach to urban development. *Open House International*. 20(2): 29-38.
- Nizamuddin Building Center (NBC). 1997. *Resettlement scheme of squatters from southern ridge to Jaunapur, Mehrauli* (Project proposal). New Delhi: Nizamuddin Building Center.
- Ogunshakin, L. 1994. Urban housing policies in the Third World. *Ekistics*. 366, 170-175.
- Palmer, E. K. and C. V. Patton. 1998. Evolution of Third World Shelter Policies. In *Spontaneous Shelter*, ed. C. V Patton, 4. Philadelphia: Temple University Press.
- Parikh, H. H. 1995. *A Community-Based Sanitation and Environmental Programme: Experiences of Indore, Baroda and Ahmedabad*. Ahmedabad, India.

Planning Commission (Government of India). 1997. *Ninth Five Year Plan*. New Delhi: Government of India. Also available at <<http://www.nic.in/ninthplan>>.

Pugh, C. 1990. *Housing and Urbanisation: A study of India*. New Delhi: Sage Publications.

Pugh, C. 1994. Housing policy development in developing countries: The World Bank and internationalization, 1972-93. *Cities*. 11(3): 159-180.

Rodwin, L., and B. Sanyal. 1987. Shelter, settlement and development: An overview. In *Shelter, settlement and development*, ed. Lloyd Rodwin. Boston: Allen & Unwin.

Sanyal, B., and V. Mukhija. 1999. *Decentralized Conflict: Lessons from a case of contending property rights in Mumbai, India*. A report prepared for the Management Development and Governance Division, UNDP. Cambridge: MIT.

Sen, S. 1992. Housing NPOs, the state and the poor: The case of India. *Third World Planning Review*. Vol: 149-150.

Shah, P.F. 1999. The Magic of Slums. *Humanscape*. VI(1).

Sinha, Amita. 1990. "A critique of state-aided self-help housing in northern India." *Open House International*. 15(1): 37-43.

Smillie, I. 1997. NGOs and development assistance: a change in mind-set? *Third World Quarterly*. 18(3): 563-577.

The Aga Khan Award for Architecture, "Slum networking in Ahmedabad," Case study, 1998, <<http://www.akaal1998.org/forms/image.htm>>(6 February 2001).

Turner, J. F. C. 1976. *Housing by people*. London: Marion Boyars.

UNCHS. 1990. *Global strategy for shelter to the year 2000*. Nairobi: UNCHS.

Urban Management Center, "Slum Networking – A Holistic Approach for Improvement of Urban Infrastructure and Environment," 19 March 1999, <<http://www.hsd.ait.ac.th/bestprac/abi.htm>>(1 January 2001).

Verma, G. D., 1997: *ODA SIP Impact Assessment Study – Indore – Quantitative Study Report*, Draft submitted to University of Birmingham/ UPO, DFID, New Delhi.

Verma, G. D. 1998. "Indore slums: Findings of impact assessment study". *The Hindu*, 26 November 1998 (available on The Hindu's internet edition).

Verma, G. D. 2000. Indore's habitat improvement project: success or failure? *Habitat International*. 24: 91-117.

VIKAS, 1996. Partners in development – the urban poor of Ahmedabad. *Environment and Urbanization*. 8(1): 223-233.

World Resources Institute et al. 1998. *World Resources: A Guide to the Global Environment*, 146. New York, Oxford: Oxford University Press.

Zeisel, J. 1984. *Inquiry by design* , 201. Cambridge: Cambridge University Press.