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REPORT ON

THE INFRASTRUCTURE FINANCE SYSTEM COMPONENT

OF THE

FINANCIAL INSTITUTIONS' REFORM AND EXPANSION PROJECT

PREPARED FOR

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INFRASTRUCTURE FINANCE SYSTEM COMPONENT

1.0 EXECUTIVE SUMMARY

An insufficient level of financing, coupled with a lack of appropriate long-term debt instruments, is the major reason why the state of infrastructure development in India, especially at the local level, is woefully deficient. The supply of funds, which in many countries is met through the bond market, is unable to satisfy the demand for new and improved urban environmental infrastructure and services. Increasing the supply of funds through an expanded bond market, while at the same time enhancing the capacity of local governments to satisfy the demand for urban infrastructure, especially for low income families, is the gist of this project.

The goal of the project is to broaden and deepen India's debt markets, while the purpose of the project is to assist in the expansion and strengthening of the debt market through financing urban infrastructure projects, including low income families.

The development of a market-oriented infrastructure finance system is designed to support the development of the debt market by using Housing Guaranty (HG) funds to complement the issuance of debt instruments to finance urban infrastructure projects. A financial intermediary (FI) will channel the HG funds, along with a matching amount of locally raised funds or debt, to municipalities or private sector entities ("Eligible Borrowers") to finance selected infrastructure projects which meet the eligibility criteria. The FI will borrow $125 million in tranches of $12.5 million to $25 million under the HG authority from a qualified US investor, which will be used to generate a equivalent value in rupees. The FI will raise a matching amount of rupees or more, thereby creating a lending pool of at least $250 million to be used to make loans for eligible infrastructure projects.

The Project proposes two Indian financial intermediaries for implementation of this project: the Housing and Urban Development Corporation and Infrastructure Leasing and Financial Services Limited. During the preparation of this project, both institutions were analyzed to ascertain their capability to function as the FI. Assessments of their capabilities reveals that they have very different, almost complementary, strengths and weaknesses. On the one hand, HUDCO has an in-depth knowledge of the world of municipal infrastructure, has good working relationships with local governments and officials and has a good record of requiring some internal cost recovery in its projects. But, it has little to no knowledge of what is involved in designing or floating a commercial bond issue, or in structuring a project around the requirements of the bond market. Moreover, it's internal operations and management requires some reorganization and restructuring of the institution to undertake this project. A one to two year gearing up period is considered necesrary before HUDCO would be capable of properly utilizing the HG funds.

On the other hand, ILFS is beginning to gain experience in developing and financing commercially viable urban infrastructure projects and has a strong interest in undertaking more of the same types. It would be able to undertake immediately the role of the FI, as contemplated by the project, with minimal assistance. But, it has little contact with the average municipality, needs to improve its capacity to relate to municipal governments and officials and is currently not well equipped in undertaking the training role that will be needed if debt financing is to become a major means of raising funds for municipal infrastructure in the future.

ILFS will undertake the role as the initial FI, with HUDCO or its infrastructure wing, receiving substantial TA and training support to develop its expertise in this area, thereby becoming at a future date a full-fledged competitor of ILFS. Annual evaluations will determine whether HUDCO had developed the needed capability for it to be recognized as a FI for the remainder of the project. This approach has several advantages. It makes use of ILFS' expertise to demonstrate quickly the viability of the whole debt market approach to the financing of infrastructure. At the same time, it develops the skills of HUDCO, which is, potentially, a far more important provider of municipal infrastructure. In addition, it encourages healthy competition in the field of infrastructure finance.

The National Institute of Urban Affairs (NIUA) is the appropriate entity to act as the policy change advocate for the policy reform agenda contemplated under this project. It has no institutional interest in the project itself. It has been designated by MOUD as the institution for developing into an apex institution to conduct research and provide training on privatization of municipal services and implementation of infrastructure projects with private/public partnerships. A through assessment of the Institution indicates that it is fully qualified to carry out its role under this project, although it will require additional technical assistance.

As a result of this analysis and appraisal, a relatively large number of projects were identified that fit all the criteria. Among them were three typical, yet illustrative projects including a solid waste project in State of Gujarat, which converts fuel pellets from garbage; an infrastructure improvement in Tirrupur, Tamil Nadu; and a water supply scheme in Madras. It should be pointed out that one of the purposes of this project, when it is implemented, is to identify and develop actual projects, which may or may not include these three illustrative projects.

The technical assistance and training will be delivered through a management support services contractor, contracted and managed by A.I.D. specifically for the debt market project component. The technical assistance and training will be used to ensure that the participating institutions attain the appropriate skills and capabilities to carry out this project successfully. TA and training will be directed at several different levels of this project:

- To the financial intermediary, and similar institutions, to ensure that this key institution is able to fulfill its mandate as the implementing agency and to develop the appropriate financial techniques and instruments for packaging commercially viable infrastructure projects;

- To the local authorities and bodies and private sector institutions to ensure that they are able to design and develop commercially viable urban environmental infrastructure projects for financing by the FI.

- To the MOUD and its resource institutions, as well as other Central and State governmental agencies, to ensure that the proper environment and requisite policies exist to develop the debt market and the urban environmental infrastructure component of this project.

2.0 PROJECT BACKGROUND AND RATIONALE

2.1 BACKGROUND

An insufficient level of financing, coupled with a lack of appropriate long-term debt instruments, is the major reason why the state of infrastructure development in India, especially at the municipal level, is woefully deficient. The supply of funds, which in many countries is met through the bond market, is unable to satisfy the demand for new and improved urban environmental infrastructure and services. Increasing the supply of funds through an expanded bond market and the capacity of local governments to satisfy the demand for urban environmental infrastructure, especially for low income families, is the gist of this project.

a. The Urban Infrastructure Environment. India's urban population, broadly defined as the population of mainly non-agricultural settlements of over 5,000 persons, has been growing rapidly. Over the past five decades, while total population grew from about 360 million to over 840 million, the urban population grew from about 60 million to nearly 220 million, or twice as fast as the national population. Urban population growth is expected to continue unabated in the 1990s. According to the National Commission on Urbanization, India's population of over one billion is likely to contain 350 million city dwellers by the end of this century. The Commission also envisioned that there would be forty cities with a population exceeding one million, compared to twelve such cities in 1981. The continued rapid growth of the urban population will undoubtedly pose a major challenge to urban authorities over the next decade and beyond.

India's burgeoning population has placed growing strains on the nation's infrastructure, especially in the cities and towns where the situation is especially unsatisfactory. In 1985, it was estimated that more than a third of the urban population did not have access to safe drinking water while more than three fourths did not have access to hygienic methods of excreta disposal. The serious and growing inadequacy of urban infrastructure continues to be a key constraint to overall growth of the economy. The costs of deteriorating infrastructure are hampering India's economic growth. Waterlogged streets and poor drainage add to the costs of transportation, while inadequate public water supply, power, sewerage and drainage adds to the costs of operating businesses, running homes or managing offices. These factors inhibit both foreign and domestic investment and, to that extent, reduce the possibility of success in achieving a buoyant financial market.

The changing form of urban living and the transformation of urban economic structures and activities also places new demands on infrastructure. India will continue the process of graduating from a rural environment to an urban one, and in the process will face up to a highly competitive environment, one in which India is only one player on the global economic field. With economic liberalization unleashing the driving forces of private enterprise, India is poised for tumultuous economic growth. This poses a central challenge to cities to provide the appropriate environmental infrastructure so that they will be able to cope with this growth. With the restructuring of the nation's economy, a reshaping of the city's infrastructure base is imperative, especially to provide access by low income families to improved infrastructure services.

The organization, provision and maintenance of urban infrastructure in Indian cities has been mainly a function of the public sector. A variety of institutions, with the municipal governments being at the core, are involved in the development of urban infrastructure. By and large, these local bodies depend on financial allocations made by the Central government or state governments. While these allocations have remained at average levels, the state of local finances has neither improved nor kept up with the needs for both population and economic growth. Thus, one of the major problems of urban infrastructure has been the continued dependency on public government funds.

Although the allocation approach to infrastructure finance has slightly improved with the loan financing approach implemented by the Housing and Urban Development Corporation (HUDCO), this dependency on government capital makes it impossible for local governments to meet all but a fraction of their infrastructure needs. It is clear that not only is this total dependency on the public sector counterproductive, but it will ensure that the need will continue to grow, not abate. There is an urgency, therefore, for local governments to create a conducive urban environment for urban infrastructure and to seek out alternatives to financing urban infrastructure projects which can tap private capital, through the development of commercially viable projects that will ensure the recovery of investment capital and the recycling of funds. Although the challenge of urban infrastructure needs to be met in a variety of ways, including new and improved technology, organization and management, innovative finance is a major area where new ground can be broken.

One new view is that by combining the resources of the public and private sector to attack the problem of developing urban environmental infrastructure, governments will be able to leverage existing resources dramatically and raise funds in a free and competitive debt market. However, there are major issues which must be recognized and dealt with before urban infrastructure services can be successfully financed in a competitive investment environment through equity participation and the issuance of marketable bonds. The infrastructure issue pivots on the close collaboration of the public sector, particularly the state and local Government, and the private sector to negotiate, design, implement, and package commercially viable projects, that include below median income families. The other issue is the ability of the an embryonic open bond market, such as exists in India, to underwrite and process infrastructure bond issues in an environment with enough transparency and transaction efficiency for an active bond trading in a secondary market to emerge.

b. The Debt Market. During the past decade, the development of the securities market in India has centered on equity shares, which offered attractive opportunities to portfolio institutional investors seeking diversification and higher returns. Conversely, India's bond market has lagged in depth, diversity of instruments and yields. The volume of purely corporate bonds is negligible compared to corporate equity shares as well as to bonds issued by government institutions for a captive audience of investors who are obligated to buy them to satisfy government regulations. A free operating bond market, as defined in industrial countries, does not exist in India with any degree of depth. Most debt transactions applicable to infrastructure are in the form of bank loans or private placements with institutional investors.

The need for an expanded and open bond market in India is clear. The developers of large projects, including infrastructure projects, need large sums of money that normally banks are unwilling and unable to provide. Moreover, corporate capital structure must have a debt component to attract equity investment, since debt enhances the firm's return on equity and preserves stockholder control. In the absence of a comprehensive debt market, long-term capital investment is sorely constrained, resulting in disinvestment in infrastructure and public services and decapitalization of industry.

The GOI has now embarked on the critical task of instituting changes in a financial system which is outmoded and beset by inefficiencies, some inevitable, some deliberate. It is inevitable that problems have resulted from the rapid growth of financial transactions in a system not prepared to cope with the volume and sophistication. On the other hand, some problems have been created by design to preserve large profits which feed on the mere confusion of the system. However, there are many positive indicators in India's financial markets. Distinct pockets of opportunity for sustained economic and social development through the use of the debt market are in existence, which is a different concept from the purely speculative and reckless transactions common in India's emerging markets.

Among the encouraging signs is that the demand for debt in India appears to be robust. The amount of financial resources available in India surpass the level of other developing countries. The domestic savings rate, international transfers from Indian non-residents, repatriated Indian capital, and international portfolio investments have contributed to increase the size of the Indian capital market. In particular, the potential demand created by a high rate of domestic savings is a positive sign that additional resources will be available for viable investments. Complementing the supply of funds is the existence of a number of institutions which appear to be committed to the development of new instruments and the improvement of financial markets.

There is widespread evidence that the Government's policies are having a marked effect on the bond markets. Just recently, and for the first time, three bonds totaling Rs 20 million were listed and sold on the over the counter market. The issuer of these bonds was the Unit Trust of India, while the market maker was ILFS. The successful floating of this bond issue provides evidence that privately issued bonds for trading have a place in India's debt market, and that bonds backed by commercially viable infrastructure projects can be underwritten.

In India today, a unique opportunity exists to stimulate the use of the securities market to encompass projects which are as socially commendable as they are commercially viable. The success of the housing finance system in India, which is strongly supported by USAID, provides an worthwhile example of the use of long-term funds to support the economic development and growth of a key sector of the economy, while tackling a dire social problem--the housing shortage. It is an example which should be replicated through the implementation of this project.

2.2 PROJECT RATIONALE

a. The Indian Context. A primary aim of the project is to broaden and strengthen the debt market, yet a corollary aim is to attack the problem of inadequate urban environmental infrastructure in municipalities. The two aims are complementary. Funding for the improvement of infrastructure can only be supplied if the bond market begins to flourish. However, there will only be a demand for the monies generated by the sale of bonds if there are a series of viable infrastructure projects being identified and executed.

To introduce the concept of financing infrastructure projects through loans and bonds which need to be repaid will not be an easy task. Traditionally, funds for such purposes have come from Central or State sources and they are often not repaid or even accounted for as project expenditures. There is a widespread expectation on the part of local government authorities that these funds will flow as of right. However, given the on-going changes in government policies, this flow of funds is not expected to continue at the same level as in previous years.

India is a myriad mix of attitudes about government. The old adage that "all generalizations are false, including this one" should be observed in approaching any specific situation. But, for purposes of describing the situation about government attitudes in India, some generalizing is necessary. Some years ago, one expert wrote that there were two basically different sets of belief which characterized politics and government in India. One was the liberal, democratic ethic of western political thought, which permeates the Central government establishment, the courts and the civil service. The second was an older set of traditional beliefs which is built around loyalties to caste, clan and kinship ties and is dominant in municipal government and pervasive in the smaller towns and cities and the rural panchayats.

He found that the two sets of beliefs came into conflict most dramatically at the level of the state government which was, at that time, and continues to be, the channel for contact between Central Government institutions and local governments. While this conflict of beliefs is not new today, there is good reason to believe that it will take on increasing relevance in governing municipalities. With the enactment of the 74th Amendment to the Constitution (see following section for description of this Amendment), local governments will now be recognized as constitutionally mandated, and direct links between Central and local institutions will come into being.

The very nature of this project will enhance the establishment of such a link. Loan funds, raised on the national level, will be made available directly to local agencies on business based conditions including the proviso that a strict accounting system be established, that the costs for which the funds are used be recovered and that the monies be repaid to the lender, with interest. Although the funds may still have to be formally funnelled through the State, in accordance with the Local Authorities Loans Act of 1914, and State permission will certainly be required, the State will no longer have the discretion to approve or deny loans as in the past.

For the project to be successful, it will need to demonstrate to both state and local officials that funds taken under these conditions can ease the existing shortage of funds for infrastructure. But, it will need to do more than that. It will need to find a way to bridge a gap between fundamental attitudes and instill among local leaders an acceptance of the need to recognize and accept values which may be foreign to them. That task cannot be lightly undertaken. It will require imaginative and committed work, over the life of the project, not only by the Indian people and institutions undertaking the project, but also from the Indian policy change advocate, and the technical assistance and training component of this project.

Fortunately, there are a few local authorities and institutions where the climate for using commercially viable loans for infrastructure already exists and they can be used to demonstrate the technical and financial feasibility of the approach being proposed in this project. But it will take agile minds and effective techniques to interpret these demonstrations in such a way as to make them persuasive to officials of other local bodies where the climate does not yet exist.

b. Private/Public Partnerships. Bringing the private sector and the public sector, in all its forms, to work together toward the identification, design, planning, implementation and financing is a paramount task. It requires that a premium be placed on identifying and structuring projects that are commercially viable and that serve the mutual needs of government, the private sector, and most importantly, the users of the services. One of the greatest difficulties will be the missionary work needed to garner commitments from governments at all levels in addition to the private sector to initiate and implement a strategy and concomitant framework that seeks to promote a sharing of the risks, rewards and responsibilities of sustained infrastructure development and investment.

This new view of infrastructure provision and financing is beginning to be understood by many GOI officials although some still resist the idea of relinquishing responsibilities which traditionally have been exclusively in their domain. Moreover, many in the private sector customarily have seen public services as unprofitable undertakings not worth pursuing relative to more attractive investments. Therefore both the government and the private sector must undergo a learning process while negotiating, physically implementing, and financially packaging every project.

The learning process is intensive and highly specialized, but most rewarding in the end as shown by the experience of countries that have embarked successfully on public/private approaches to infrastructure development. Lessons, new technology and strategies have been accumulated in other countries, which should be heeded in India, as the GOI embarks on unprecedented financial liberalization plans and integration into the world economy. In this respect, India is in a privileged position among other developing countries to successfully develop and finance urban infrastructure projects. While other developing countries struggle to obtain scant private funding domestically and abroad, India has a robust source of local financial resources. The only problem is accessing those resources in the magnitude required by infrastructure projects and at a cost that renders the project commercially viable. The answer is to improve local government capacity to manage, identify and develop urban infrastructure with the private sector and to seek financing in the debt market.

<u>c. Changes in the Operating Environment.</u> It cannot be stressed too strongly that important changes have and will continue to occur in the financial markets and in the participating institutions during the life of this project. In the last two years, India has witnessed a dramatic liberalization in its financial and economic systems. From an insular, inward looking and centrally planned system, it is being restructured rapidly to meet the emerging global competition. This liberalization is reflected in actions such as the dismantling of the allocated system of credit, the entry of foreign investment institutions in the Indian capital markets and the progressive decontrol of the financial system. In particular, the government is carrying out a comprehensive reform of the financial sector, including making a wider choice of financial instruments accessible to investors and issuers. Further, the GOI envisages a complete ban on generalized loan waivers, improved recovery and recycling of public savings, continuation of the phased reduction in the Statutory Liquidity Ratio, phasing out of ceilings and floors on bank deposit and lending rates, and the strengthening of institutions and procedures for bank supervision. A recent report by the Ministry of Finance discussed in much detail how the government's policies are transforming the country and what

it expects to do over the next three years to continue this liberalization process.

The role of the different government bodies--central, state, local--are being transformed not only because of the financial changes as indicated above but also by the enactment of Amendment 74 to the Constitution in 1992. This Amendment has now secured the requisite approval from a majority of the States, and is an integral part of the Constitution. In general, the purpose of this Amendment is to begin the process of devolution of powers to the people at the grass-roots level. It is expected to have a profound impact on how the different governments carry out their responsibilities and functions as well as how they relate to each other.

The necessity of this Amendment lies in the recognition that the rural nature of India has changed noticeably since independence, where today, about one-quarter of population lives in urban settlements, or more than 200 million people. Insofar as these urban areas contribute substantially to the economic development of the country, it is necessary for the people and their representatives to be fully involved in the planning and implementation of programs at the local level. If democracy in Parliament and the State Legislatures is to remain strong and stable, its roots much reach down to the villages and cities where the people live. The Constitution of India has made detailed provisions for ensuring protection of democracy in Parliament and in the State Legislatures, and therefore democracy in these institutions has survived and flourished.

Unfortunately, the Constitution did not make local self-government in urban areas a clear-cut constitutional obligation. As a consequence, democracy in municipal government has not been stable. While the municipal legislative acts of States provide for regular elections in municipalities, they are frequently suspended and superseded for indefinite periods of time, thereby contributing to the general weakness of municipal bodies. Moreover, the general position with regard to financial resources of municipal bodies is very unsatisfactory. Over the years, there has been a steady encroachment on the assigned functions and revenues of local urban bodies by specialized agencies of the State Governments. As a result, many urban local bodies have become debilitated and are not able to perform effectively.

The weakened status of urban local bodies has caused a political reaction resulting in a constitutional guarantee to safeguard the interests of the urban local bodies in order to provide for:

- regular and fair conduct of elections to these bodies;
- holding of elections, with a specified time limit in case of supersession;
- adequate representation of Scheduled Castes/Tribes (SC/ST) and women in the elected bodies;
- placing on a firm footing the relationship between the State Governments and the urban local bodies with respect to:
    - functions and taxation powers of the urban local bodies;
    - arrangement for revenue sharing between the State Governments and the urban local bodies; and

- involvement of elected representatives at the grass-roots' level in planning at the district and metropolitan levels.

Implementation of this Amendment is expected to have a major impact on this project. Specifically it should result in an improvement in the position of municipalities with regard to those powers and responsibilities necessary to enable them to function as effective institutions of self government. The State Legislature will by law have to specify what powers and responsibilities will be given to the Municipalities for the preparation and implementation of plans for economic development and social justice. The Constitutional Amendment further envisages that the municipal responsibilities will go beyond the traditional provision of civic amenities. They will now be expected to play a crucial role in the preparation of plans for local development and in the implementation of development projects and programs including those specially designed for urban poverty alleviation and management of the urban environment. The Twelfth Schedule of the Constitution, which is added to this Amendment, lists the municipal functions, which include essentially all those functions normally associated with a municipality in the US and many other developed countries.

On the financial side, it is less clear how the new Amendment will change the existing situation. The States will still be left with the right to specify by law all matters relating to the imposition of taxes; however, the municipalities, as elected bodies, are sure to have more input in making financial decisions. Financial matters affecting municipalities include:

- taxes, duties, fees, etc, which could be levied and collected by the Municipalities, as per the procedure to be laid down by State law;
- taxes, etc. which would be levied and collected by the State Government and a share passed on to the Municipalities;
- grants-in-aid that would be given to the Municipalities from the State; and
- constitution of funds for crediting and withdrawal of moneys by the Municipality.

The last major part of the Amendment relates to the responsibility for district or regional planning. Provision has been made to set up a District Planning Committee in each district, whose role is to take an overall view of development in the district and decide on allocation of investments between the rural and urban institutions. These committees would be involved in such matters as the sharing of water and other physical and natural resources, integration of development of infrastructure and environmental conservation, and decisions on the extent and type of available resources, whether financial or otherwise.

In addition, the Amendment specifies that every urban area with a population of 1 million plus must constitute a Metropolitan Planning Committee, with broad responsibility for urban planning. To a large degree, these Committees would be democratically elected and, like the District Committees, would be responsible for the preparation of Metropolitan Plans and the coordination and allocation of financial resources.

The enactment of the 74th Amendment is only the first step in the process of devolution of powers to the people. Within the course of the next year, the State Legislatures will have to amend or repeal the existing laws on the subject so that their legislation will be in conformity with the provisions of the Amendment. During this period, it is expected that there will be a much wider debate on the various provisions of the Amendment, and a greater involvement of the citizens and their representatives in the transition process. Regardless, it is clear that municipalities will have a stronger role in the planning, development and implementation of all development projects, included those relating to urban infrastructure, and this project will have to recognize and take into consideration this new and generally healthy factor.

d. Relationship to the Mission Strategy. In March of 1992, the USAID Mission in New Delhi announced a revision in mission strategy to reflect its support for the economic changes introduced by the Rao Government during the previous year. The Government's liberalization measures, it noted, held the promise of transforming the Indian economy into a modern, efficient one, able to stand on its own in an increasingly competitive world. The announced strategy was devised to bolster the measures undertaken by the Government. In keeping with USAID global policy, this strategy would focus on three themes or objectives. One would promote an improved financial and regulatory environment, the second would encourage increased productivity of Indian enterprises and the third would endorse the need for smaller, healthier families. While the strategy built on past mission activity, it also meant that some on-going efforts in other areas will be phased out. For the foreseeable future, the touchstone of acceptability will be the three themes noted. The infrastructure finance component of this project supports all three objectives.

Improved Financial and Regulatory Environment: The project is directly relevant to the first of the strategy objectives. In developing the debt market as a source of urban infrastructure finance, it is contributing to the improvement of India's capital market. It is also illustrating the potential of a new area for private investment, and of new types of instruments in which to invest. As a corollary, it is directing the attention of potential investors towards the enormous opportunity which is offered by India's unsatisfied and continuing demand for basic urban environmental infrastructure.

Much of the urban infrastructure finance today comes in the form of grants and subsidized loans. Either it is made available directly by Central and State Governments to local authorities for implementation, or it is channelled to HUDCO in the form of low interest borrowing required of banks, insurance companies and other institutions subject to the Government's Statutory Liquidity Ratios (SLRs). The Center and the States are tightening their economic belts and will not be able to fund local infrastructure projects as they have in the past, while the Government is committed to reducing the SLR requirements. The thrust of this project is to promote an alternative, market-based source of funds which will be available as the other sources decline.

This project is a natural extension of the Mission's past efforts in the area of housing finance. Infrastructure is an essential precondition for the development of housing. The experience of supporting the expansion of the housing finance industry from one company to more than 250 in ten years, could well be replicated in the market for financing infrastructure projects. Many of the lessons learnt under the housing project would be applicable to developing the infrastructure market. Moreover, the focus on infrastructure will have even greater and more direct benefits for low-income communities.

Increased Productivity of Indian Companies: The Mission Strategy Framework noted that Indian business efficiency is hampered by two major constraints: energy shortages and environmental degradation. Although this project does not address the energy issue, it does cover the environmental issue. A major source of environmental pollution is directly attributable to the lack of adequate urban infrastructure. The Mission identified, as an example, the way in which industrial sites are threatened with hazardous waste contamination. Water pumped from groundwater sources sometimes has to be treated and recycled before being used, thus adding to costs and lowering efficiency. Other examples have quantified the costs to business of water-logged streets, congested traffic and the unhealthy living conditions of employees. Moreover, 80 percent of urban pollution in India is derived from household waste. One of the primary results of this project will be a method of financing infrastructure which should respond to the needs of industry and shelter. In addition to the financial inducements, lowering the level of environmental degradation and thus enhancing industrial efficiency will add to the attractiveness of this project to investors.

The project will improve the productivity of enterprises in another way, as well. By subjecting infrastructure projects to the fiscal discipline of the financial marketplace, it will put a new premium on the need for project accountability and efficiency. To the extent that foreign, in particular US, contracting firms are attracted to the larger Indian infrastructure projects, they will also introduce project management systems, new to India. The cumulative effect of the activities under the project will be to improve the ways in which Indian contracting companies do business.

Smaller, Healthier Families: The project does not directly address India's family planning program or any of the related USAID initiatives. But it is concerned with the need for healthier families, and healthier families are a necessary precondition for smaller ones. One of the main reasons for large families in India today is the parents' desire to bear sons to look after them in their old age. As the Mission statement points out, however, mortality under five years of age is ten time higher than that of any other group within the country. Clearly, one son is not enough; many children are needed to guarantee old age security.

One of the major causes of death of low-income children is the unhealthy environment of their communities. Water-born diseases are especially deadly and their spread is directly linked to the paucity of potable water supplies and the lack of sewage disposal systems. Only if the infrastructure available to low-income communities is improved, will child mortality decrease. And only if child mortality decreases, will there be any realistic possibility of slowing India's rapid population growth.

To the extent that the project can succeed in generating substantial funding for infrastructure, the living conditions of the nation's poorer families will improve. Many urban infrastructure projects will benefit these families. Even where a debt-financed project does not directly target the low-income, they benefit indirectly. Every project so financed means that there are fewer potential demands for tax-financed grant funds. These, in turn, can be applied to projects that are needed, but are not revenue producing. One of the effects of this project should be to improve the living conditions of India's poor and, in particular, of children. By so doing, it would contribute to the aim of encouraging smaller, healthier families.

2.3 GOAL AND PURPOSE

The goal of the project is to broaden and deepen India's debt markets. The purpose of the project is to assist in the expansion and strengthening of the debt market through financing urban infrastructure projects, which benefit low income families.

3.0 PROJECT DESCRIPTION

The development of a market-oriented infrastructure finance system is designed to support the development of the debt market by using Housing Guaranty (HG) funds to complement the issuance of debt instruments to finance urban infrastructure projects. A financial intermediary (FI) will channel the HG funds, along with a matching amount of locally raised funds or debt, to municipalities or private sector entities ("Eligible Borrowers") to finance selected infrastructure projects which meet the eligibility criteria. The FI will borrow $125 million in tranches of $12.5 million to $25 million under the HG authority from a qualified US investor, which will be used to generate a equivalent value in rupees. The FI will raise a matching amount of rupees or more, thereby creating a lending pool of at least $250 million to be used to make loans for eligible infrastructure projects.

The FI will finance viable infrastructure projects that are designed and developed by either the public sector, i.e., a municipal corporation, authority, board, etc, or a mixture of private and public sector entities . Eligible borrowers are further defined as borrowers which develop projects meeting the criteria for an eligible project as stipulated by the financial intermediary. Eligible projects will encompass the entire gamut of urban infrastructure development, with the principal emphasis on water, sewer and solid waste projects. All projects must be financially viable to qualify for a loan from the financial intermediary. Urban infrastructure projects which are also commercially viable, meaning they meet all the criteria to be financed in the debt market at market rates, will be given preference under this project. Such projects may be developed through a private sector entity using limited and non-recourse financing including some of the techniques such as Build, Operate, Transfer (BOT) or Build, Own, Operate (BOO). (See Section 4.4 for a detailed description of these methods)

Municipal government entities, or private sector companies acting in a cooperative arrangement with a municipal entity, as mentioned in the previous paragraph, or a special vehicle created for this purpose, will develop, design and build eligible urban projects, either directly or through contractual arrangements with third parties. The construction of the project, including acquisition of goods and services, will be financed either by the developing agency using its own or borrowed funds or by underwriting a public debt issue, or by combining resources from several sources.

The project's approach is to select up to four localities in one or two states which are willing to implement basic policy reforms (already adopted by the Ministry for Urban Development) which are required to achieve the project's goal and purpose. Illustrative projects have been identified in the States of Maharastra, Karnataka and Gujarat, and Tamil Nadu. In practice, it is recognized that initially only a few of the larger municipalities have the wherewithal to fulfill the expected eligibility requirements to develop a project or to act in accordance with a private sector entity to develop commercially viable projects.

Technical assistance and training will be provided to the municipalities and local agencies to improve their capacity and capability to participate in the program, with the TA and training targeted to the municipal bodies with the largest potential for participating in the project, commensurate with their need. It is anticipated that the amount of capital available under this program will only satisfy a fraction of the need and demand for infrastructure projects in India (see section 4.2 on need and demand).

The various public offerings will test a number of different debt instruments and mechanisms tailored to the needs of specific kinds of projects, including, but not limited, to zero coupon bonds to guarantee high risk issues, swaps and options to increase investment choices, stand-bys to cover short-term shortages, forfeiting convertibles to straddle export credits, etc. To ensure the replicability of these debt instruments, they will be applied to several different types of infrastructure projects. Therefore, the capital available for his project will be spread over a number of different project types and entities to utilize the entire financial program proceeds. As with the previous HG Housing Finance Programs in India, it is expected that the availability of a relatively small amount of HG authority will be the catalyst for increasing investments over time in infrastructure projects through the issuance of varied debt instruments by the financial intermediary and, in the future, other financial institutions which recognize the potential and worth of this type of financial transaction. This process is expected to develop an urban infrastructure finance system in India.

Technical assistance and training are important components of this program. A portion of the technical assistance and training will be channeled through the National Institute for Urban Affairs, under the terms and conditions of a cooperative agreement with USAID. The role of NIUA will be to act as the policy reform advocate through a multi-year program of promotion, case studies to identify lessons learned, and dissemination of successful examples of policy change. A competitively bid contract will also be awarded and managed by USAID, to a US consulting firm to provide project management support services as well as the delivery of TA and training in all functional areas. It is expected that the US consulting firm will also be able to contract Indian consultant services, both individual and institutional, in specialized areas of expertise. Recipients of the assistance and training under the infrastructure finance system development component fall into the following general categories:

- to the financial intermediary, including similar institutions, to ensure that this key institution is able to fulfill its mandate as the implementing agency and to develop the appropriated financial techniques and instruments;

- to the municipal entities and private sector to gain the expertise to design, develop, implement and maintain commercially viable infrastructure projects for financing by the FI;

- to the Government of India and selected governmental agencies to ensure that the proper environment and requisite policies exist to develop the debt market component of this project and to replicate the success generated by the FI in other public and private institutions.

The project will also provide for the creation of an umbrella Steering Committee, composed of representative institutions of the debt and equity project components, USAID, and the US private sector. The purpose of this Committee will be to annually the progress towards achieving the project's goal and purpose, and make suggestions for improvement.

The financial intermediary will assume overall responsibility for eligible projects for HG loan funding. USAID will neither approve nor disapprove individual projects, borrowers or on-lending transactions. Rather, USAID's monitoring and evaluation aspects of the program will be designed to ensure conformity with conditions and covenants established between USAID and the financial intermediary, and the framework of the various agreements between the financial intermediary and the borrowers/developers of the individual projects. These conditions will include the establishment of 1) the criteria for an eligible project, 2) provisions regarding loan servic'ng, program monitoring, evaluation, audit and so forth, 3) use and co-mingling of the HG funds and the proceeds from the local debt issues. The DA funds will be available to provide TA and Training as well as management support services for the Program.

4.0 IMPLEMENTATION PLAN

4.1 INSTITUTIONAL FRAMEWORK

It is anticipated that the borrower of record of the HG will be the Ministry of Finance or a financial institution designated by the Ministry. Since the FI will conduct its operations in rupees and therefore will not produce hard currency earnings, it will be necessary for the GOI, or a financial institution approved by the GOI and USAID, to carry the foreign exchange risk associated with the HG loan. This may be done through any mechanism mutually agreed on by the GOI and USAID, including a swap arrangement with another financial institution.

The GOI will provide a guaranty to USAID to indemnify USAID for any losses incurred under USAID's guaranty to the US investor. The mechanism for providing the GOI guaranty and other guarantees will be as agreed between the GOI and AID before the first HG borrowing proceeds. As explained more fully in the section of Project Procedures (4.5), projects undertaken with HG funds will be structured financially to include at least an equal amount of Rupees to be raised from local/domestic sources.

Two Indian institutions are identified as financial intermediaries for implementation of this project: the Housing and Urban Development Corporation and Infrastructure Leasing and Financial Services Limited. During the preparation of this project, both institutions were analyzed to ascertain their capability to function as the FI. Their operations were analyzed from several points, including an assessment of their strengths and weaknesses, and the technical assistance and training needs they would require to carry out the role as FI.

ILFS will undertake the role as the initial FI, with HUDCO or its infrastructure wing, receiving substantial TA and training support to develop its expertise in this area, thereby becoming at a future date a full-fledged competitor of ILFS. Annual evaluations will determine whether HUDCO had developed the needed capability for it to be recognized as a FI. This approach has several advantages. It makes use of ILFS' expertise to demonstrate quickly the viability of the whole debt market approach to the financing of infrastructure. At the same time, it develops the skills of HUDCO, which is, potentially, a far more important provider of municipal infrastructure. In addition, it encourages healthy competition in the field of infrastructure finance. The following two sections provide this assessment, while a more descriptive analysis of both institutions is provided as an Annex.

a. The Housing and Urban Development Corporation (HUDCO) is a public corporation in the portfolio of the Ministry of Urban Development, whose main objective is to finance or undertake housing and urban development and related programs. In operation since 1970, it has a strong track record of loaning money to public agencies for housing and urban projects, with an increasing emphasis in more recent years on urban environmental infrastructure projects. Financial and operational reports indicate that it has had an enviable measure of success in recouping its loans and it continues to report profits each year.

HUDCO was established under the Companies Act of 1956 and is wholly-owned by the Government of India (GOI). Acting through the

Ministry of Urban Development (MOUD), the GOI appoints the Chairman/Managing Director and the five other directors who make up the governing board of the corporation. The corporation charter does provide for annual and extraordinary general meetings of all those holding corporate shares, but for all practical purposes, the effective control of the organization is in the hands of its board of directors, all of whom are government civil servants. There is no legal barrier that would prevent HUDCO from undertaking the role and activities of financial intermediary, as contemplated by the proposed project.

The organizational structure of HUDCO has evolved and developed in response to the demand for projects it is responsible for funding. In 1989, the GOI directed HUDCO to increase its lending for urban projects and as a result, a separate wing was established to focus on urban environmental infrastructure programs. This wing, under the charge of an executive director, has developed extensive guidelines and criteria for appraising infrastructure projects, and assists potential borrowers in designing projects that satisfy those requirements. The infrastructure wing officials take the position that projects which they finance must be self-supporting and that the cost-recovery aspects of loan administration constitute an important element in their lending practices. Through its housing and infrastructure loan programs, it has established strong relationships with municipal and State bodies throughout the nation, resulting in a thorough understanding of the needs and functions of municipal entities.

Much of HUDCO's loan resources have been derived from borrowing from public institutions, such as banks, the Life Insurance Corporation of India and other large institutional investors, and equity contributions from the GOI. In the past, these financial institutions have been required by law to invest their Statutory Liquidity Reserve in agencies, such as HUDCO, which are engaged in activities that are deemed to be socially desirable. This requirement has ensured HUDCO a ready supply of below market rate funds. But the GOI, in the process of liberalizing its controls on the economy, has pledged to decrease the Statutory Liquidity Reserve from a high of 38 percent to 25 percent by 1996-97 (it is 36.5 percent today). The consequence to HUDCO will be the possibility that it will find it harder to raise money and the funds it does raise may be more expensive due to competition for loan funds.

In the future, State Governments will be increasingly strapped for funds, as they, too, feel the effects of economic liberalization. They may be unable to continue the same level of grants to local authorities for municipal infrastructure projects. Moveover, as States tighten their belts, they may be less willing to provide guarantees to Municipal borrowing. Without a State guarantee, lending to HUDCO will be a riskier proposition, and therefore, lenders may raise interest rates, adding to HUDCO's cost of borrowing. Of course, HUDCO can continue to counter this potential problem, in part, by a rigorous insistence upon the design of self-sufficient projects and a direct connection between project costs, cost recovery and loan repayment.

A proposal was made some years ago to separate the infrastructure wing from HUDCO and constitute it as an independent national infrastructure finance company or bank. In the event that HUDCO faces a financial crisis in future years, this would help to isolate the infrastructure operations from any separation associated fallout. If this separation were to occur, all performing loans in the existing portfolio would be transferred to this wing; however, since the facility has been operating as a semi-autonomous body for such a short time it is probable that a number of non-performing loans, if any, would be limited or remain with the main HUDCO operation. Furthermore, the lending practices of the infrastructure wing have been relatively rigorous in demanding real cost recovery and loan repayment. It is likely that an independent infrastructure bank would be able to ride out any financial crisis that could affect its parent company for the reasons mentioned above.

There would, however, be costs involved in creating an independent infrastructure institution as described above. Some of the organizational costs of the infrastructure unit might be defrayed, for instance, by arrangements with HUDCO to contract for the services of its regional offices or for covering its administrative support. Nevertheless, some costs would be incurred if the infrastructure wing were spun off, which would have to budgeted and allocated, presumably by the Central Government. Approval for such an action would have to go through a government sanctioning process which could be expected to require considerable time. A thorough and detailed assessment of this possibility is needed.

To participate in this HG program, HUDCO needs assistance in two specific areas, regardless of whether or not a separate infrastructure unit is set up. First of all, it would require some technical assistance and training to upgrade its internal operations and management, including the reorganization, and possible spin-off, of an infrastructure operation to carry out the project. Concurrent with its organizational changes, it must develop financial engineering skills to provide assistance to municipalities to design commercially viable projects--not just financially feasible projects--thereby ensuring that the municipal bodies which will participate in the project can design projects that will be accepted for financing in the open market. Given the requisite assistance in selected areas, and from the point of view of designing and implementing effective infrastructure projects, HUDCO is qualified to carry out the role of financial intermediary.

Secondly, it would need considerable technical assistance to develop an internal capability to structure and negotiate the underwriting of project-specific bonds. At the present time, it does not have a financial operation or department with the ability to design and market commercially viable infrastructure projects through the sale of bonds to the investing public to be traded in the open market. Nor does it have staff members with knowledge of this type of financing, and of how to develop the financial instruments and procedures necessary to carry out this type of financial operation. A World Bank financed study of HUDCO by the National Institute of Public Finance and Policy will provide much more information about HUDCO's financial condition and needs, when it is completed next Spring.

In summary, HUDCO's strengths lie in its ability to develop and finance financially viable municipal infrastructure projects, its good relations with municipalities and States which trust HUDCO, and its understanding and in depth knowledge of the infrastructure sector. Its weaknesses consist of its lack of knowledge and capacity in the development of commercially viable projects and its lack of understanding and capability of the capital and debt markets. Given the dedication of its staff and sufficient time, HUDCO could gain the necessary expertise to develop commercially viable projects for sale in the debt market. It is expected, however, that a minimum of one year, and more likely two years, of specific technical assistance and training as mentioned above, coupled with some reorganization and restructuring of the institution, for HUDCO to reach the level where it could operate effectively to develop commercially viable urban environmental infrastructure projects.

<u>b. Infrastructure Leasing and Financial Services, Ltd (ILFS)</u> is a publicly held corporation, with 51.7 percent of its shares held by public institutions and corporations, and the remainder held by private companies in India and foreign investors. It was created initially as a joint venture by the Central Bank of India, the Unit Trust of India and the Housing Development Finance Corporation Ltd (HDFC), however a recent inflow of fresh equity has led to a redistribution of ownership, as shown below:

SHAREHOLDER	PERCENT OF SHARES
■ Central Bank of India, & Affiliates	32.2%
■ Unit Trust of India	19.5
■ HDFC Ltd	11.9
■ IFC, Washington DC	11.4
■ ORIX Corporation, Japan	20.0
■ Employees, others	5.0
■ TOTAL	100.0%

Of the fifteen current Board members, seven represent the public sector, while another seven represent the private sector and foreign investors, with the 15th member being the firm's Managing Director. All the institutions listed above have representatives on the Board, while other directors have been named from the Industrial Development Bank of India, the Birla Group, Maruti Udyog Ltd, the Ministry of Transport and the Ministry of Information and Broadcasting.

ILFS is a non-banking financial institution, whose business purpose is to provide a comprehensive range of financial services in a number of areas including: corporate finance, consisting of leasing, asset financing, financial advisory services, project financing and capital markets; market operations, including securities trading and brokering; management of mutual funds; venture capital; and finally, the commercialization of infrastructure projects. Since its beginning ILFS has attempted to develop a string of international relationships to obtain additional financial resources and technical knowledge which it uses to improve its finance products and expand and development new services.

During its five years of operation, ILFS has focused its attention on developing financial products that bring a more immediate return, ensuring that the company is profitable while permitting it to diversify. This too has given the company the time required to organize itself to undertake the financing of commercially viable infrastructure projects, including the development of the appropriate legal, financial and operational structures needed to support these kinds of projects, arrange for putting such structures in place and finally implementing the projects. This developmental work has meant that ILFS has been the pioneer in this critical segment of the financial market. But, it has only been in the last two years that the economic and financial environment has been suitable to the introduction of debt backed by commercially viable projects of the type ILFS is putting together.

In the infrastructure commercialization area, ILFS is directing its efforts to four sub-areas: power, telecommunications, surface transport and serviced land, including urban environmental infrastructure. Only the last sub-area is considered appropriate for financing under the HG Program. At the present time, ILFS is implementing its first infrastructure project in the area of surface transportation. The Rau-Pithampur Link Road in Madhya Pradesh State is a 11 km. toll road which will provide an alternative to a 34 km. non-toll road linking the two towns. Not only will this be ILFS's first infrastructure project of any nature, it will also be the first toll road in the country. Its cost is Rs 80 million, of which ILFS is providing equity for Rs 20 million, with bonds being issued for Rs 60 million to five institutional investors. ILFS has fully guaranteed the bonds.

This project was completed and in operation in August of this year; ILFS will be able to learn whether its financial and economic assumptions and structure were accurate and the operation will truly work. ILFS has set up a Trust to own the project and issue the bonds, the first time in the country that such a financial instrument has been used for an infrastructure project. In addition to this project, ILFS has a number of other transportation projects in its pipeline, such as city by-passes, a city light rail system, bridges and highways. The self-financing features of toll systems, coupled with the lower probable risk element, are clearly the reasons why ILFS has focused its first efforts in the transportation area.

ILFS is also working on a number of serviced land projects, which it defines as projects in the areas of water and sewer, solid waste and land development. Although ILFS has identified some projects of this nature, it is going ahead with the planning of only a few, apparently hesitating until the feasibility of commercially viable transportation projects is more evident. The most advanced of the land development projects is the Tirrupur Development Program in Tamil Nadu State, which consists of the development of a comprehensive water and sewer cum roads project for a city with a large number of export oriented textile manufacturing plants.

As a Bombay based company, with a highly educated and sopnisticated staff, ILFS states that it needs to improve its capacity to relate to municipal governments officials. The ability to communicate requires a basic level of shared experience and, between the municipal official and the employee of ILFS, there is a considerable gap that needs to be narrowed. Considerable effort and energy have to be put in by ILFS to be an effective vehicle to "spread the gospel" of debt financing of infrastructure among the municipal bodies of India. It has received a large number of requests for financing from municipalities and other organizations. But can currently respond only selectively to those which are large enough, or well enough presented, to suggest that the proposal is commercially viable.

As the pioneer in this field, ILFS is currently financing and will continue to finance the most viable of commercial projects, for evident business reasons. In spite of being the only player in town, ILFS has not been able to respond to the majority of the loan requests it receives because of its limited resources.

Finally, ILFS is a new institution and in spite of its impressive array of backers from the public and private sectors as well as from abroad, it still is in the process of making its reputation in the financial and business sectors. ILFS will have to work hard to gain the confidence of the vast bulk of municipal bodies, those same bodies that it will have to work with if it is going to generate the commercially viable projects it needs to make the bond market work, which in turn will make a measurable impact on the infrastructure deficit. In addressing these perceived needs, technical assistance to ILFS will need to be focused on assisting the institution to develop a wide array of financial instruments, or how to reach and communicate with municipalities, and on ensuring that ILFS develops and implements the kind of projects that sew widespread benefits.

ILFS is the only institution in India in a position now to develop commercially viable infrastructure projects. From the standpoint of making sure that demonstration projects in the area of urban environmental infrastructure are also commercially viable, using marketable financial investments, ILFS appears to be more qualified, at this time, than any other institution in the country to be the financial intermediary for this project. Not only does the institution have the capability, but it is desirous of undertaking a selected number of such demonstration projects. It has developed a pipeline of project proposals, some of which appear to be appropriate for financing projects under the HG program.

ILFS should be able to provide, rather quickly, demonstration projects that meet the requirements of the debt market. ILFS would thus be able to illustrate the utility of commercial debt instruments as a means of raising money for the types of infrastructure projects illustrated here. The conditions precedent for success, in terms of cost recovery and loan repayment out of project revenues, would be emphasized. Moreover as a result of the implementation of these projects, it should be able to formulate and operationalize a number of financial instrument models. But if debt financing is to become an important component of the resources raised for infrastructure in the future, many deviations from the ideal will be required. In order to make the approach politically palatable to local municipal and State officials, the required measures of fiscal discipline will need to be introduced gradually and on an almost individualized basis.

It should be noted, perhaps as a measure of excessive caution, that the financial regulatory climate in India today is rudimentary. As a result of the economic liberalization policies of the Government, opportunities for new financial activities are opening up all the time. New financial companies, with bright and knowledgeable employees, are on the cutting edge of India's new financial revolution. As such, they are well ahead of any regulatory structures or institutions, both in terms of timing and comprehension. Until they face competition that is equally competent, there is no effective way to safeguard the public welfare.

c. Two financial intermediaries. The above assessment of HUDCO's and ILFS's capabilities reveals that they have very different, almost complementary, strengths and weaknesses. On the one hand, HUDCO has an in-depth knowledge of the world of municipal infrastructure, has good working relationships with municipalities and municipal officials and has a good record of requiring some internal cost recovery in its projects. But, it has little to no knowledge of what is involved in designing or floating a commercial bond issue, or in structuring a project around the requirements of the bond market. A one to two year gearing up period is considered necessary before HUDCO would be capable of properly utilizing the HG funds. Furthermore, if separation of the infrastructure wing is considered a wise precondition for its establishment as the FI, this time period would be needed for reorganization and restructuring.

On the other hand, ILFS is beginning to gain experience in developing and financing commercially viable urban infrastructure projects and has a keen interest in undertaking more of the same type of projects. It would be able to undertake immediately the role of the FI, as contemplated by the project, with minimal assistance. But, it has little contact with the average municipality, needs to improve its capacity to relate to municipal governments and officials and is currently not well equipped to undertake the training role that will be needed if debt financing is to become a major means of raising funds for municipal infrastructure in the future.

ILFS will undertake the role as the initial FI, with HUDCO or its infrastructure wing, receiving substantial TA and training support to develop its expertise in this area, thereby becoming a full-fledged competitor of ILFS. At the end of an appropriate period, an independent assessment of HUDCO's potential as FI unit will be undertaken. If it is determined that HUDCO has, by that time, developed the needed capability, it will also be recognized as a FI for the project.

This approach has several advantages. It makes use of ILFS' expertise to demonstrate quickly the viability of the whole debt market approach to the financing of infrastructure. At the same time, it develops the skills of HUDCO, which is, potentially, a far more important provider of municipal infrastructure. In addition, it encourages healthy competition in the field of infrastructure finance.

d. The National institute of Urban Affairs (NIUA) has been identified as the appropriate entity to promote, analyze and disseminate the policy reform agenda contemplated under this project. It has no institutional interest in the project itself and can fulfill the role of policy change advocate. It has been designated by MOUD for developing into an apex institution to conduct research and provide training on privatization of municipal services and implementation of infrastructure projects with private/public partnerships. Moreover as a disinterested party, it will be able to carry out its role in an unbiased manner. A through assessment of the Institution indicates that it is fully qualified to carry out its role under this project, although it will require additional technical assistance, as is described more fully in the later section on TA.

The specific role of the NIUA in this project will be to act as the policy change advocate; to fulfill this roll it will:

- Act on behalf of the MOUD as the agency for development of urban policy, including the preparation of studies and analyses leading to reform and changes in urban environmental infrastructure policy and programs;
- Promote the project's policy change agenda with the state and local governments, and the private sector;
- Through the preparation of case studies, evaluate the impact of the policy reforms vis-a-vis the urban environmental infrastructure projects at the demonstration locations;
- Disseminate the project's policy and programmatic findings and conclusions through publications such as a project news letter, manuals, periodicals and books; through workshops, seminars, and audio-visual presentations.

NIUA, a non-profit public institution, is the policy research arm of the Ministry of Urban Development. It also has a close relationship with the States, the municipalities and financial institutions working in the urban sector. Since its creation in 1976, it has developed a wealth of relevant practical, scholastic and research experience principally in the areas of urban planning and development, municipal finance and development, urban studies and environmental planning. NIUA has had many years of experience in working with USAID and other international agencies and consulting firms.

NIUA is experienced in carrying out training programs, seminars, conferences and other types of policy dissemination activities throughout India some of which will be similar to that required under this project. Through contracts with clients, it carries out studies and other consulting assignments, utilizing its own staff as well as outside consultants. Its professional staff is of a high caliber, and it will be able to hire or contract other professionals to fill any part- or full-time staffing gaps necessary to carry out this project. NIUA has already identified additional resources required to carry out its role in this project.

NIUA will move early next year to a new institutional complex being built solely for institutions and companies working in the housing and urban sector. In its new facility, NIUA will be able to coordinate more closely with other institutions in related fields, including the financial intermediary for this project, which will also have space in this institutional complex. The new facilities will provide NIUA with about double its existing space, and thereby it will be able to accommodate the needs of its expanding operations and staff, part of which will be required to meet the needs of this project. It will also provide more adequate teaching, research and library facilities, as well as better and more appropriate equipment.

e. The Ministry of Urban Development (MOUD) is the central government agency responsible for urban policy and the provision of centrally funded financial and technical assistance to cities and towns throughout India. It will continue to function as USAID's counterpart technical Ministry with respect to this project. The Ministry of Finance will approve, on behalf of the GOI, the Implementation Agreement with USAID. A representative of MOUD will serve on the Steering Committee. It will provide policy direction for urban environmental infrastructure throughout the country, and through NIUA will undertake the necessary analyses and studies to develop this policy.

f. State Governments play a major role in the financing and sanctioning of infrastructure projects. While all state governments rules and regulations with respect to municipal borrowing are not identical, in general, state governments must approve all borrowing on the open markets, and except for municipal corporations and authorities, other municipalities may only borrow from state governments. In addition, state governments fix interest rates and the timing of municipal borrowing, in consultation with the Reserve Bank, and sometimes with the Finance Ministry. A State Government may provide a guaranty to borrowing made by a municipality entity. In fact, all of HUDCO's loans to municipal entities have a state guaranty. While states governments may not initiate projects, they may use their authority to halt or limit the financing of a project. To the extent it is necessary for State Pollution Control Boards to interact with the project, their participation will be weighted.

g. Municipal Governments and agencies, along with the FI, will be responsible for identifying and developing projects that are commercially viable, and then bringing those projects to the Financial Intermediary for financing. The level of expertise within these bodies vary widely, even among the 77 municipal corporations which govern the largest cities and the myriad city and state public authorities and utilities which provide many of the urban services. Therefore, the technical assistance and training directed to the municipalities will have to be tailored to particular needs of each participating municipality or local body.

4.2 INFRASTRUCTURE NEED, DEMAND AND SUPPLY

Rough estimates of the need for core urban infrastructure only (water and sewer, solid waste, storm drainage, roads and street lighting and land preparation) has been prepared. One estimate attempts to cover both the present backlog of these core public services as well as projections for the 10 year period beginning in 1991. This estimate gave an investment range from a low estimate of US$12.1 billion to a high of US$20.2 billion. It is based on per capita needs and therefore is clearly on the low side since it ignores the infrastructure needs of industrial and commercial activities, especially with respect to water. Further it should be stated that this estimate neither includes inter-urban and rural needs nor other urban infrastructure needs such as education, health and recreation facilities, all of which would certainly increase significantly these investment figures if included in this estimate.

It is clear that the $250 million to be provided under this project for infrastructure purposes over the next few years will only provide a pittance toward the overwhelming need as indicated above. The demand, as reflected by the institutions contacted during the preparation of this report, is estimated at Rs12 billion or about $400 million worth of core urban environmental infrastructure projects. The three projects given as illustrative projects have a total cost of $321 million, part of which will be financed by debt. As the projects proceeds, and as word of its success in communicated, more projects will be identified and prepared. It should be stressed that the very purpose of this project is to assist in the identification and development of commercially viable projects at demonstration localities. This, in turn, will ensure that the supply of viable and sound projects will be generated by the financial intermediary and the participating municipal bodies.

4.3 ILLUSTRATIVE INFRASTRUCTURE PROJECTS

USAID contracted the services of an Indian consulting firm to investigate and identify a selected number of illustrative infrastructure projects that might be eligible for financing under the proposed HG component of this project. (See Urban Environmental Infrastructure Finance Studies, by H.U. Bijlani and P.S.N. Rao, dated June, 1993). Based on a set of site criteria prepared in consultation with USAID and MOUD, the consultant selected three States and two municipalities in each of these States, for a total of six cities, as possible project sites. The selected sites were:

New Bombay & Pune, Maharashtra
Bangalore & Mysore, Karnataka
Baroda & Rajkot, Gujarat

The consultant then prepared a set of criteria to select a few illustrative urban environmental infrastructure projects in those six cities that would be appropriate for inclusion in this program. With these criteria in hand, the consultant visited each of the cities listed above to ascertain the project potential. As a result, the consultant identified thirteen illustrative projects, of which at least one project was located in each of the target cities. Moreover, the types of projects represented the gamut of infrastructure projects, from water and sewer to transportation.

After identifying these illustrative projects, USAID and its consultants, in consultation with the MOUD, further analyzed them to determine whether they fit within the eligibility criteria for participation in the HG program; and moreover, whether they were commercially viable projects, as defined in this project. This analysis revealed that four to six of the original thirteen projects appeared to meet all the selection criteria. Subsequent visits to Bombay and Baroda revealed that there were, in additional to the projects previously identified, other projects also fit the more rigorous selection criteria. Moreover, the ILFS, whose office in Bombay was visited, identified a number of projects in other States that it is now appraising. Finally, toward the end of the project analysis phase of this project preparation, the MOUD requested that USAID should also consider the State of Tamil Nadu as a project site.

As a result of this analysis and appraisal, a relatively large number of projects were identified that fit all the criteria. Among them were three typical, yet illustrative projects which are listed below. It should be pointed out that one of the purposes of this project, when it is implemented, is to identify and develop actual projects, which may or may not include these three illustrative projects.

Project: <u>FUEL PELLETS FROM GARBAGE PROPOSAL</u>

Sponsor: ILFS

Investment: $66 Million

Expected Net Present Value of Cash Flows (in millions $):

Discounted at 12%	$ 94
at 16%	$ 82
at 20%	$ 70

HIGHLIGHTS OF THE PROJECT:

The proposal calls for establishing a facility to tap the dormant energy in Municipal Solid Waste (MSW) for useful purposes. This project involves the expansion of a plant that converts solid waste into free burning fuel pellets.

The burning characteristics of the fuel can be tailor-made within a certain range by resorting to blending other waste material. The process is flexible enough to accommodate different blends and produce fuel pellets of different characteristics and thus take care of changes in supply and in demand. Once fuel pellets are made from the garbage, this fuel can be used in a conventional steam power plant for steam and power generation. Thus, the development of a primary source of energy from garbage viz. fuel pellets can either be limited to the energy only, or the go ahead can be given to generate steam and power, depending on the local requirements.

The basic problem that is being solved here is in the realm of providing a clean environment in urban centers. The burgeoning problem of garbage disposal is converted into an energy asset.

Project: VEERANAM WATER SUPPLY SCHEME

Sponsor: ILFS

Investment on improvement of existing system: $30 Million

Investment on pipes and distribution system: $150 Million

Expected Net Present Value of Cash Flows (in million $):

Discounted	at 12%	$310.0
	at 16%	$256.0
	at 20%	$205.0

HIGHLIGHTS OF THE PROJECT:

One of the interesting characteristics about this project is that it was on the drawing board for more than 20 years. Finally, the city of Madras has reached a critical stage of water shortage, and faced with scant public funding, is undertaking this project as a public/private partnership. This is another illustration of the increasing receptivity of municipalities to enter into commercial agreements with the private sector in the face of a crises.

Madras city depends on a single monsoon for meeting the drinking water requirements of nearly 5 million citizens. Even in years of normal monsoon, per capita availability of potable water at 70 liters per day is the lowest among metropolitan cities in India. On account of the failure of the 1992 monsoon, the city is currently grappling with serious water shortage, and the per capita availability has fallen to a low of 35 liters per day. There is thus a need for a reliable supplementary water source to meet the requirements of this fast-expanding metropolis.

Project: TIRRUPUR INFRASTRUCTURE IMPROVEMENT PROJECT

Sponsor: ILFS

Investment: $75 Million

Expected Net Present Value of Cash Flows (in millions $):

Discounted	at 12%	$ 125
	at 16%	$ 98.3
	at 20%	$ 79

HIGHLIGHTS OF THE PROJECT:

The most remarkable characteristic of this area is that, in spite of being one of the busiest manufacturing center of export goods in

India, it has no water and sewer system, and inadequate roads. The population is mostly composed of workers in the manufacturing industries, to a large degree textile manufacturing for the export market.

People now pay water tank trucks Rs. 30 per 1000 liters. Once this project is operational, they will pay only Rs. 2 per 1000 liters. Commercial consumers will be charged Rs. 15 per 1000 liters. A mechanism has been devised by the sponsor whereby the water charges will provide a cross-subsidy for the sewage.

The Government of Tamil Nadu, Tirrupur residents and industry, and ILFS have provided the necessary equity investments. Bonds will be issued to cover the balance in the same fashion as the Madhya Pradesh model trust.

4.4 FINANCIAL ENGINEERING ASPECTS

The array of interest rate techniques, instruments and protection devices has expanded rapidly in the last few years and will no doubt continue to do so in the future. These devices can be used with many types of borrowings in project financing to recast the interest rate and currency risk.

The Indian market has the necessary liquidity to accept these strategies and many more. Also some Indian professionals who operate in the securities markets already have the expertise to adapt new instruments to the local environment. However, these finance professionals consist of only a handful of people who work in a competitive financial environment and are not inclined to divulge their expertise. The level of financial sophistication needed to design techniques and instruments to conform to the project and the investor is available only at the highest level of finance in India and is not generally available to private sector developers, investors, and government agencies at the national, state, or municipal.

Following is the description of some suggested financial techniques and instruments that could be used in India for infrastructure financing.

- Co-financing and complimentary financing is traditionally used in connection with international development bank loans, but it is applicable in cases where financing comes from different sources, whether official funding is involved or not. The idea is for the donor agency to provide seed money for the project to encourage the participation of private and official investors by enhancing the solvency and perceived credibility of the project.

- Bankers acceptance securities to back up letters of credit extended through the construction period. The letter of credit guarantees payment to the supplier of goods and services, while the issuance and backing of the letter of credit is performed by a bank. The document generated is a security called "Bankers Acceptance", which is traded in the debt market.

- Global Depositary Receipts (GDR) are similar to the American Depositary Receipts (ADR) in that they are certificates of ownership of securities issued in the country of origin but they are traded globally as well as domestically. This mechanism, as proved by the extensive use of ADRs, is an important mechanism to stimulate local markets and obtain international funds.

- Caps, floors, swaps, options and callable swaps are all interest rate protection devices. The purpose is to enable a project to match assets and liabilities, whereby a project can reassemble the payment streams on debt to match the income streams on an asset. Caps or floors enable the issuer to lock in a defined upward or downward risk exposure to floating rate. They can be either attached to a floating rate debt issue or purchased separately. Swaps enable an issuer to lock in a specific funding rate. A swap is an option on a swap which gives the owner of the swaption the right to enter into a swap at a certain rate at some defined time in the future.

- A variation is the Stripped Floating Rate Note with a Cap. These capped notes were developed to provide issuers and buyers with different advantages. The issuer is protected if interest rates rise above the cap. The buyer receives a higher rate for the benefit accrued to the issuer. The caps which represent a privilege, or an asset to the issuer, can be stripped and sold back to the investment banker. In turn, the stripped caps can be resold to another lower graded company (such as a infrastructure project) which could have not otherwise have obtained capped rate financing. This strategy only applies when there is probability of raising interest rates.

- Zero coupon bonds are deep discount bonds. The issue price of the bond at the time of purchase is much lower, depending on term and discount rate, than the par value received at maturity. This opens a wide range of possibilities for using these bonds in project finance, from guaranteeing another obligation with equal maturity, to covering zeros into regular bonds or equity once the project is well underway and producing profits sufficient to cover redemption or conversion. The key feature is that a small disbursement is needed to purchase a zero coupon bond at a time when the project has no cash flows. The small disbursement buys a guarantee for another investment until the project is capable of retiring the debt.

4.5 BOO/BOT INFRASTRUCTURE TECHNIQUES

Build Own Operate (BOO), Build Own Transfer (BOT) and other variants are infrastructure development/finance techniques whereby the government grants long-term, irrevocable concession agreements or franchises to private investors, authorizing them to build, own, operate needed infrastructure, in return for an exclusive contract to provide services over a time period sufficient to amortize the capital investment costs. These private/public sector partnerships permit governments to share a greater amount of risk with the private sector and to introduce and promote market discipline in project identification, financing, management, and implementation. These techniques are only a few of many that may be used to develop commercially viable infrastructure projects.

To be successful, such concessional agreements will require the government agency(s) involved in these agreements to detail minimum performance parameters of the desired facility, and provide reasonable and plausible guarantees to the investor that it will be able to capture and retain a revenue stream in sufficient amount to service his capital loan, provide funding for adequate operations and maintenance, and pay dividends to shareholders from the profits. Since all or most of the project financing would be non-recourse, or limited recourse debt not supported by sovereign guarantees, there must be assurances that the political and financial risks as well as the opportunity to earn a reasonable rate of return given the market conditions being faced, are recognized as legitimate cost components of the concession agreement.

The present conditions in India indicate that the essential characteristics for the successful implementation of public/private partnerships utilizing BOO/BOT techniques exist, notably:

- A desire to promote investment in non-traditional sectors;
- A growing demand placed on existing infrastructure and a recognition of the importance of new, more efficient systems;
- A growing reputation as an attractive investment location;
- A firm commitment by the GOI to promote market-oriented approaches to economic development;
- A high savings rate; and
- Most importantly, the depth of the capital market has increased considerably since the early 1980's.

To develop BOO/BOT type projects, special advisory services or technical assistance are required to inform the political leadership, promote public awareness and gain popular approval for the inauguration of such programs. This involves more than the mere preparation of invitations to bid or advertising "Requests for Proposals" to solicit the interest of prospective investors to provide the desired facilities. In fact, lessons learned from a number of countries where interest has been shown or attempts have been undertaken to pursue a BOO/BOT course of action, suggest that an explicit program and set of procedures establishing a publicly perceivable or transparent framework for carrying out the program, should first be put into place.

Design and installation of such a program will be performed by knowledgeable and experienced specialists with credible expertise. Professionals with hands-on, market-tested, international experience in each of the relevant disciplines will be required, especially experienced, senior-level policy advisors, supported by legal, financial, engineering, and production experts. These multi-disciplinary teams will identify the most promising investment prospects to include: performing pre-feasibility analyses of a prospective portfolio of "BOO/BOT-able" projects;

defining the constraints and developing remedies for their resolution; and carrying out the related public awareness tasks of designing executive seminars for policy-level officials, and broader based public information programs for the implementing ministry officials, domestic and foreign investors, managers, banking, capital market, and administrative officials whose coordinated interaction will be needed to implement the program.

Finally, the BOO/BOT framework in India must include but not necessarily be limited to:

- An approving public policy and institutional framework;
- A legal structure that minimally includes basic contract law, protection of property rights including intellectual property, some mechanism for dispute resolution, and information about corporate tax, import licensing, customs clearance, and related business practices;
- The existence of minimum financial and capital market structures required for the conduct of business activity including established Reserve Bank of India regulations and procedures for foreign exchange remittances;
- An authoritative and technically capable government mechanism for project identification and pre-feasibility determination, i.e., setting of priorities;.
- A system for establishing agreed performance specifications to permit the conduct of a project solicitation, evaluation and competitive award process; and procedural arrangements for receiving, validating and assessing unsolicited proposals; and
- A plan for confirming investor compliance with the conditions incorporated in his proposal, throughout the construction and thereafter, by performance monitoring.

4.6. PROJECT PROCEDURES

The development of the debt market program requires that two actions be initiated in parallel. On the one hand, commercially viable projects must be prepared so that the debt market will have a physical object or project to finance. On the other hand, the debt market, along with its appropriate instruments, procedures and institutions, must be developed and in-place so that the projects can be financed. The following procedures attempt to show how this will occur.

The financial intermediary or FI is responsible for pulling these two disparate operations together and as such it is the centerpiece institution of the project. Once USAID authorizes the HG Loan, the MOF, the FI and USAID will sign an Implementation Agreement which stipulates the terms and conditions under which the program will be implemented, including conditions precedent to subsequent HG authorizations, borrowings and disbursements. After this Agreement is signed and the requisite conditions stipulated in the Agreement are met, the financial intermediary will enter into negotiations to borrow up to $25 million (the first annual tranche) from a US investor, under current market terms and conditions, with the full faith and credit guaranty of the U.S. Government. The FI will sign a loan agreement with the US Investor to complete this transaction. The GOI or its designated institution will counter-guaranty USAID against any losses resulting from the latter's guarantee. The FI will arrange the matching counterpart funds, the source of which may be derived from a bond placement, private or otherwise, or from any other source that the FI might be able to tap.

At the same time, the FI will identify projects that satisfy its eligibility criteria. Based on these criteria, the private or public sector agency or group that is promoting the project will prepare all the documentation necessary to bring the project to the development stage where the FI can be assess its feasibility. Like any other commercially viable project, commercial engineer designs, construction technology, long-term investor commitments, myriad risk assessment and coverage contracts, and provision for other contingencies must be in place before the project is underway.

Depending on the financial engineering techniques applied, project construction or acquisition can then begin. In the case where the developer has used its own funds or borrowed funds to finance construction, the project can be underwritten, i.e. bonds issued and sold, only after construction has been completed. It may be necessary in some cases for the project to demonstrate its feasibility by generating a flow of income that demonstrates, inter alia, project viability before a public offering can be made. It is expected that the project will be commercially viable from income generated from user fees or charges.

The proceeds from the public offering must be sufficient to retire the project funding or the construction loan, where existent, and these recycled funds will then be available to fund additional infrastructure projects, which in turn will be underwritten when those projects are considered viable. Depending on the size of the project, more than one project may be packaged in a public offering to reduce underwriting costs.

When market conditions are appropriate, the financial intermediary will originate and issue bonds which will be sold by brokers and bankers to both individuals and institutions. The financial intermediary and its financial advisor, plus brokers and bankers, will structure the bond offering to raise the maximum amount at the lowest cost, contingent on government regulations. Ideally, the bonds will be sold on the open market at market rate terms and conditions, however, initially, they be privately placed, with the possibility of trading in the secondary market. In the event the financial intermediary is able to obtain a government guarantee for the bond issue, then the interest rate and other lending terms and conditions will reflect the current rate for government PSUs.

A trustee arrangement will be made with a qualified institution to collect the loan repayments and make payment to the US investor. The financial intermediary may also undertake the role of trustee.

4.7. Eligibility Criteria.

To qualify for financing from the financial intermediary, a project must meet the following criteria:

- Types of Projects: In conformity with the 74th Amendment and the 12th Schedule, the types of urban projects eligible for loans under this project are expected to be limited to:

  - Water supply, including for residential purposes;
  - Sanitation and solid waste management;
  - Slum improvement and upgrading; and
  - Integrated area developments.

  Other areas of responsibility by municipalities listed under the 12th Schedule do not generally involve the construction of facilities and therefore they are excluded from the above list of eligible project for HG funding. Nevertheless, the above projects must fulfill USAID's criteria with respect to the HG Median Income requirement to be eligible.

- Financial: The project must be financially feasible, that is, the borrower must prepare a financial analysis for each project that demonstrates that the project loan is feasible and can be amortized fully over the life of the project. In the case of a commercially developed project, the financial analysis must show that the project is commercially viable, and that the project can be financed by a debt instrument issued and sold in the open market. These analyses must stand up to a thorough evaluation by the financial intermediary, which must approve the project.

- Loan Limits: Given the annual limit of $25 million in HG authorization and a matching amount from local counterpart agency resources, the program will have at least $50 million to loan annually for eligible projects. In this case, the $250 million program could be implemented over a 6 to 7 year period, including a 1 to 2 year start-up and project design period. To carry out the purpose of the project, the full $250 million will be utilized to test a number of different debt instruments to cover the wide variety of infrastructure projects to be carried out in a minimum of 4 municipalities in 2 states. This being the case, a variety of projects of varying sizes should be funded with the pool of infrastructure money.

- Technical Feasibility: The project must fulfill all the normal and usual technical and engineering requirements, as stipulated in the federal, state and municipal laws and regulations applying to a particular project.

- Beneficiary Access. The project must demonstrate that it will benefit the vast majority of the population of the urban area in which the project is located. In this way, assurance can be given that the poorer half of the population will benefit from the project.

- Environmental: Each project must meet all environmental guidelines established by government agencies and authorities under which the project falls, as well as the guidelines from the FI.

- Public/Private Partnerships; Operations, Maintenance and Cost Recovery: Municipalities must agree to participate in the technical assistance and training activities required to increase their capacity to negotiate public/private partnerships, and to operate, maintain and recover the costs of eligible projects.

4.8 PROJECT BENEFICIARIES

There will b a number of identifiable project beneficiaries. In the first instance, the 15 million investors in the Indian financial markets will have an opportunity to diversify their investment portfolios by investing in bond issues backed by revenues from infrastructure projects. Another winner will be the tax paying population in general, which will benefit from the increased use of private sector funds to finance infrastructure rather than from the usual tax coffers, i.e. taxes may decline.

More important is the benefit to poor families. Because the project is expected to fund large infrastructure projects which will benefit most, if not all, of the population in urban centers, it can be inferred that at least half of the beneficiaries will be poor families, i.e., families with incomes below the median. For example, the construction of a water reservoir or pipe line which feed water into a city's water systems will serve the entire city, including its poor people. The benefit of potable water in areas not now served will be improved health, particularly among poor families.

Finally, municipal governments in general will have benefitted by the project in that they will have independence of action to undertake infrastructure projects with their own funds, thereby expediting the development process. They will also begin to have access to funds for infrastructure as the normal sources of funds decline. Third, they will develop the fiscal discipline will lead to improvements in city management; <u>ergo</u> they will be better able to provide urban services at lower cost.

4.9 TECHNICAL ASSISTANCE AND TRAINING

The technical assistance and training component will be used to ensure that the participating institutions attain the appropriate skills and capabilities to carry out this project successfully. TA and training will be directed at several different levels of this project:

- To the financial intermediary, and similar institutions, to ensure that this key institution is able to fulfill its mandate as the implementing agency and to develop the appropriate financial techniques and instruments;

- To the local authorities and bodies and private sector institutions to ensure that they are able to design and develop commercially viable urban environmental infrastructure projects for financing by the FI.

- To the MOUD and its resource institutions, as well as other

Central and State governmental agencies, to ensure that the proper environment and requisite policies exist to develop the debt market and the urban environmental infrastructure component of this project.

Technical assistance and training will be delivered through two management support services contractors: one each for the debt market and equity components. The contract will provide an on-site management support coordinator and home-office backstop support to coordinate activities in the U.S. The contractor will be responsible for the delivery of technical assistance and training including studies, training, and tours.

Working with USAID and NIUA as required, the contractor will develop an annual implementation plan for the delivery of the technical assistance and training. The implementation plan will be amended annually through the life of the contract to ensure that the planned activities remain current and appropriate to the goals and objectives of the project. The implementation plan amendment will result from an annual evaluation, which assesses the impact of the previous year's activities, and recommends a course of action for the following year.

The specific activities to be undertaken in the approved implementation plan will be generated through Requests for Services (RFS). The implementation plan will include a brief description of technical assistance and training activities and a schedule for implementation. For each activity, the contractor will prepare a scope-of-work and budget to be approved in advance by USAID. USAID will issue an RFS to the contractor for each activity which shall serve as the order to proceed. The contractor will ensure that scopes-of-work and budgets are generated in sufficient time to meet the approved implementation schedule.

At the conclusion of each year's activities an evaluation, by an institution or individual other than the contractor, will be performed. The evaluation will assess the impact of the technical assistance and training activities towards achieving the goal and objectives of the project; assess the impact of the overall program on the Project's proposed policy change agenda; and make recommendations on a set of activities to be undertaken during the following year which, as required, will bring the project back on target.

Technical assistance and training will be required in a variety of areas, all of which are specifically related to the need to generate commercially viable urban environmental infrastructure projects, and to prepare the financial intermediary and other involved institutions to provide the financial instruments and mechanisms to undertake this crucial role. Activities listed below are not all-inclusive, and will be updated and modified as the TA and Training program evolves. However, it gives an overview of the areas where assistance is needed.

a. Areas of Technical Assistance and Training

- New debt market instruments, procedures, etc.
- Bond underwriting

- Debt market development
- BOO and BOT concepts and procedures
- FI organization and management
- Legal and regulatory aspects of infrastructure finance
- Use and benefits of private debt for infrastructure
- Urban infrastructure planning, finance & management
- Urban Environmental infrastructure policy
- Environmental policy and impact assessment
- Infrastructure loan application preparation
- Design of self-sustaining infrastructure projects
- Financial management, cost accounting, etc.
- Municipal revenue generation for self-sustainment
- Private sector participation in infrastructure projects
- Privatization of infrastructure
- Program information dissemination
- Preparation of documentation and manuals
- Land and Geographic information systems

b. Illustrative Technical Assistance and Training activities include:

- Policy seminars and technical advice to state municipal bodies and other local authorities to appreciate the benefits of applying for bond financed assistance, as well as to identify potential projects, to prepare loan applications, to establish viable methods for cost recovery, to devise loan repayment schedules, to organize project based accounting systems and other techniques and procedures required to carry out the program. Assistance in the privatization of infrastructure and the establishment of joint ventures with private developers in the development of urban infrastructure.

- Training of trainers at the center and regional level to assist regional training institutions to continue the provision of training activities in specific areas. Regional training institutions to be involved to the degree that leaving training skills and techniques at the local level is desirable. Provide regional training institutions with skills to reconcile local values with external techniques and methods.

- Lectures, conferences and workshops to acquaint state and local officials, NGO leaders and other influential participants from public or private organizations with the program and its possibilities. Programs for sharing experiences by using successful projects to demonstrate those possibilities.

- To municipal bodies, assistance leading to the design of their own programs and identification of their own roles and responsibilities.

- To HUDCO in restructuring and reorganizing its infrastructure wing to be able to develop with municipal bodies commercially viable projects, and to develop the financial capability to underwrite and service infrastructure backed bonds, with the view of helping HUDCO become a financial intermediary.

- To ILFS, assistance and training in those areas of finance, such as underwriting, financial engineering, design, construction and management of BOO/BOT techniques, debt instruments, identification of U.S. joint-venture partners, and other aspects where such assistance is required.

- To the MOUD and other GOI central and state governments, TA and training in the development of policies that promote the development of commercially viable urban infrastructure projects, and the enacting of laws and regulations supporting the development of this key economic sector, and in the development of policies for land development, land titling, and land information systems.

- Assistance and training in the environmental aspects: to developers, i.e. municipal bodies, private companies, etc. in the need for project environmental evaluations, as well as how to prepare these evaluations; to financial intermediaries, in the preparation of environmental guidelines for the development of urban infrastructure projects; to the Central and State Governments in the design and monitoring of environment laws and regulations relating to urban infrastructure projects.

5.0 COST ESTIMATES AND FINANCIAL PLAN

5.1 Program Funding.

The entities involved in the Program and the financial contribution of each one is as follows:

- The US Lender will provide the $125 million HG loan to the FI, or its approved designee;

- The FI will mobilize $125 million in rupees, an amount equal to the HG loan; and

- USAID will provide a $7 million grant for Technical Assistance and Training, and will guaranty the loan to the US Lender.

5.2 Host Country Contribution.

- The FI will provide matching funding equal to no less than 25 percent of the HG funds.

- The FI will also provide staff assistance, office space and other facilities.

- The NIUA will provide staff, office space and facilities in-kind equal to 25 percent of the Cooperative Agreement under this component.

5.3 Estimated Program Costs and Breakdown.

a. NIUA will be awarded a Cooperative Agreement to act as the projects policy change advocate. A five year grant for approximately $1 million will be used by NIUA to promote, evaluate and disseminate the project's policy change agenda as set forth in the attached Policy Matrix (see Annex 7).

b. Management Support Services (MSS) Contract. It is anticipated that a competitively bid contract, estimated to cost about $5.4 million over a four year period, will be awarded to a US Consulting Firm. The US Consulting Firm will be use these funds as follows:

c. In-country support and backstopping. Approximately $1.6 million over four years to cover the costs of one long-term Expatriate Program Manager, two long-term Indian Professionals, local administrative support and services, and 30 days per year for coordination and backstopping in the U.S.

c. Short-term Technical Assistance. In addition to in-country support and backstopping, the US Consulting Firm will provide an array of short-term TA in a number of skill areas as described in the Section on Technical Assistance. This short-term expertise will be provided both by expatriate and Indian experts, from the Consulting Firm as well as from other firms and/or individuals whose services will be contracted by the US Consulting Firm. The cost of short-term TA is estimated at $2.5 million over the life of the project, of which about 20 percent will be in local currency.

d. Training. To be derived from two sources:

(1) The US contracting firm will develop and carry out an array of training exercises, in the US, India, the region and other countries as illustrated in the section on TA and Training. The budget for this item is estimated at $820,000, of which about 40 percent will be in local currency.

(2) HSMI and its regional affiliates will develop training programs in areas identified in the implementation plan for demonstration states and municipalities to plan, maintain, operate, and recover costs; for environmental and economic impact analysis; and foe entering into public/private partnerships. This training will also include the development of new techniques for training research and methodology, and the design of core curriculum and training materials for this specific activity. The cost is estimated at $480,000 over four years.

e. Evaluations and Monitoring. The sum of $300,000 will be retained by USAID to pay for annual evaluations, mid-term and final evaluations, periodic monitoring and audits.

f. Contingencies. Contingency costs will equal about 10 percent of the project cost or $700,000, including inflation.

6.0 PROJECT IMPLEMENTATION, MONITORING, AND EVALUATION

6.1 CONDITIONS AND COVENANTS

The Condition Precedent to <u>investor selection</u> will include the following:

a. USAID and the GOI will agree in writing to the process by which loan funds guaranteed under the Project Authorization will be guaranteed and disbursed to the FI. USAID proposes that the Implementation Agreement specify:

(1) that the foreign exchange risk will be borne by the GOI, or its nominee banks, through a mechanism to be agreed with USAID; this risk will not be borne by the FI;

(2) that the GOI, or a financial institution authorized by the GOI and approved by USAID, will guaranty repayment of the dollar loan;

(3) that the FI will be the borrower of record, having the authority to receive, hold, use, or disburse the proceeds of the USAID guaranteed loans;

(4) the criteria and procedures to be employed by the FI for appraising and selecting urban infrastructure projects to be financed under this program;

(5) the basic parameters for the provision of debt market instruments for financing urban infrastructure projects (underwriting standards, broker/dealer arrangements, etc);

(6) the policy agenda in the area of urban environmental infrastructure to be carried out over the life of this project;

b. The Conditions Precedent to the <u>first disbursement</u> includes:

(1) the preparation of a Master Implementation Plan to be prepared by the participating institutions, to include the first year Implementation Plan (action plan), for approval by USAID;

(2) the development of Environmental Evaluation Guidelines by the FI for projects to be financed with HG resources, to be prepared prior to the FI assessing those projects, and which will be submitted to prospective "Eligible Borrowers" in sufficient advance time for the borrowers to prepare such Environmental Evaluations for prospective projects;

c. Before <u>subsequent disbursements</u> of the HG loan, the FI will update the Master Implementation Plan, will document progress towards meeting the program objectives, and will verify financial operations. The FI will also be current in the preparation of the annual Implementation Plans.

6.2 USAID MANAGEMENT

Management and administration of the debt market component will be the responsibility of RHUDO/South Asia and will be accomplished through periodic visits to and meetings with the MOUD, NIUA, the FI and other program participants, as well as visits to sites where the project activities are being implemented. RHUDO/South Asia will serve as USAID/New Delhi's technical support office for urban programs by providing briefings to the Mission on program progress and by seeking policy guidance from the Mission. RHUDO/South Asia will provide day-to-day support for program development and administration.

6.3 PROGRAM MONITORING AND EVALUATION

Program monitoring will be the responsibility of RHUDO/ South Asia. Annual implementation plans and evaluations will be used to monitor progress towards the project's purpose level indicators. These indicators are described in the project's logical framework.

In addition, the annual evaluations will ascertain the progress of the on-going authorization and to determine future authorizations. Each evaluation will determine if there are any material changes required in the implementation of the project. Expatriate consultants will conduct the evaluation jointly with USAID. Any consultants or consulting firms involved in the implementation of this project will be excluded from participating in any of these evaluations.

6.4 NEGOTIATING STATUS

Pursuant to approval of this Project Paper, USAID will authorize a $14 million HG loan and send a Letter of Advice to the GOI and the FI. A program Implementation Agreement will then be negotiated and signed with the FI and, after all Conditions Precedent have been met, the FI will seek guidance from its investment advisor on entering the U.S. capital market, once approved by USAID to precede. The FI will keep the USAID Office of Housing informed of every development and the timing of its borrowing. The Office of Housing will facilitate the borrowing process, to the extent permitted by USAID policy, and will encourage U.S. lenders to participate in the program.

The contracts to be executed in connection with this HG loan are:

- The Implementation Agreement between USAID and the FI.
- The Loan Agreement between the U.S. lender and the FI.
- The Guaranty Agreement between USAID and the U.S. lender.
- The Host Country Guaranty Agreement between USAID and GOI.

The contracts and agreements to be executed in connection with the implementation and management of this project are:

- The Cooperative Agreement between USAID and NIUA for policy promotion, analysis and dissemination.
- The Contract between USAID and a to-be-identified US Consulting Firm to provide management support services.

6.5 PROGRAM IMPLEMENTATION SCHEDULE

Assuming approval by GOI of the FI as the implementing agency, the anticipated sequence of events is outlined below:

- Approval of the $125 million Paper; By August 31, 1993 authorization up to $14 million HG signed.

■ Issuance of Letter of Advice to GOI.	By August 31, 1993
■ Draft Implementation Agreement prepared by USAID and sent to FI.	By September 30, 1993
■ PIO/T's for grant to NIUA	By October 31, 1993
■ PRO/AG and RFP prepared for contracting US Consulting firm.	By October 31, 1993
■ Implementation Agreement signed.	By November 30, 1993
■ Cooperative Agreement with NIUA signed.	By November 30, 1993
■ Contract with US consulting firm signed	By January 31, 1994
■ FI certifies first projects for financing	By February 28, 1994
■ FI seeks US Investor	By February 28, 1994
■ US Consulting firm staff arrives	By March 31, 1994
■ Draft Master Implementation & 1st Year Plans prepared	By April 30, 1994
■ FI negotiates and signs HG loan	By April 30, 1994
■ Guaranty Agreements negotiated and signed	By April 30, 1994
■ Implementation Plans approved	By May 31, 1994
■ FI draws down authorized disbursement of HG loan.	By May 31, 1994

PROJECT ANNEXES

1. INSTITUTIONAL/ADMINISTRATIVE ANALYSES.

Housing and Urban Development Corporation

HUDCO was incorporated in April, 1970, by the Government of India as a wholly owned government corporation under the Companies Act of 1956. In its Memorandum of Association, as amended in 1987, HUDCO's objectives include, among other things, the following:

"to provide long term finance for construction of houses for residential purposes or finance or undertake housing and urban development programs in the country; and

"to administer the moneys received, from time to time, from the Government of India and other sources as grants or otherwise for the purpose of financing or undertaking housing and urban development programs in the country."

Ancillary objectives provide more detail about the way in which the finance is to be provided and used:

"to borrow, for the purposes of the Company with the previous consent of the President [of India], foreign currency from any Bank or financial institution in India or any foreign country;

"to borrow or raise money or to receive money or deposit or loan at interest or otherwise in such manner as the Company may think fit and, in particular, by the issue of debentures or debenture stock, perpetual or otherwise and convertible into shares of this or any other company and to secure the repayment of any such money borrowed, raised or received or owing ...

"to enter into any contract or arrangement for the more efficient conduct of the business of the Company or any part thereof and to sublet any contracts from time to time;

"to enter into any arrangements with the Government of India, or any local or State Government in India or with any authorities, local or otherwise ... and to obtain from them any rights, powers and privileges, licenses, grants and concessions which the Company may think it desirable to obtain ...;

"to guarantee the payment of money unsecured or secured, to guarantee or to become sureties for the performance of any contracts or obligations;

"to lend money on the mortgage of immovable property or on the hypothecation or pledge of movable property or without security to such persons and on such terms as may seem expedient ...;

"to receive grants, loans, advances or other moneys on deposit or otherwise from a State or Central Government, Banks, Companies, Trusts or individuals with or without allowance of interest thereon;

"to subscribe for, underwrite, purchase or otherwise acquire and to hold, dispose of and deal with the shares, stocks, securities and evidences of indebtedness or the right to participate in profit or other similar documents issued by any Government authority, Corporation or body or by any Company or body or persons and any options or rights in respect thereof; [and]

"generally to do all such things as may be deemed incidental or conducive to the attainment of the above objects or any of them and to carry on any business which may seem to the Company capable of being conveniently carried on in connection with any of the Company's objects or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property or rights."

It is evident that there is ample legal authority under its charter for HUDCO to undertake the activities contemplated under this project.

The Chairman/Managing Director and all members of the Board of Directors are appointed by the President of India, acting through the Secretary of the Ministry of Urban Development. Before appointing the other members, the Chairman must first be consulted, except in the case of government representatives to the Board. At the present time, all Directors are Central Government civil servants. The Chairman/Managing Director and the other full-time directors, who also hold management positions with HUDCO, act as the management of the corporation.

All shareholders in the corporation are entitled to vote at the annual general meeting or any extraordinary general meeting. At present, all shares are held by the Government. The shareholders receive and consider the profit and loss account, the balance sheet and the report of the directors and auditors. Dividends are declared at an annual general meeting, yet to date, no dividends have been distributed. Extraordinary general meetings may be called by the President of India, by the Board of Directors on their own or when demanded by holders of one-tenth of the paid-up capital.

The Board of Directors is elected by the shareholders. The Articles of Association state that "the board of directors of the Company shall be entitled to exercise all such powers and to do all such acts and things as the Company is authorized to exercise and do ... [except] any act or thing which is directed or required ... to be exercised or done by the Company in general meeting." Specifically, the directors are authorized, among other things, to acquire property, to appoint officers and other employees and fix the conditions of service, to invest moneys, to borrow monies, to establish local boards for managing any of the affairs of HUDCO in any region, to delegate powers, and to make bye-laws.

A meeting of the Board of Directors must be held quarterly and the Chairman/Managing Director will ordinarily preside. The board may take any action at this meeting which the directors are authorized by its corporate authority to take. But, the Chairman/Managing Director is required to reserve for decision by the President of India, any proposal or decision which is, in his opinion, of sufficient importance to warrant it. Some examples are specified, such as any proposal or decision relating to the establishment of a subsidiary company.

At the present time there are six directors. Three are appointed by the Ministry of Urban Development to represent the Government of India, of which two are serving officers in the MOUD and one from the Ministry of Finance. The other three directors serve as full time officials of HUDCO; the Chairman/Managing Director, the Director of Finance and the Director of Corporate Planning. The latter two report to the Chairman/Managing Director. Below this level of management, there are eleven executive directors or managers dealing with either staff or line functions. One of these is the Executive Director, Projects, while another is the Executive Director, Infrastructure.

One zonal office of HUDCO is located in Madras, and is headed by an Executive Director, Southern Zone, which oversees the activities of the three large regional offices located in the south of India. There are ten other regional offices in other parts of India and six, smaller, development offices. The heads of the regional offices are titularly responsible either to the Executive Director, Southern Zone or to the Executive Director, Projects, however, in practice, they too have direct access to the Chairman/Managing director on important matters. HUDCO prides itself on having a open and minimal bureaucratic style.

Over the years, HUDCO has accumulated a capable staff with expertise and depth. It employs 113 professionals, who are provided with research and secretarial support. Most of the staff is assigned to one or another of the five operating divisions of the institution: Design & Development, Infrastructure, South (eg. Madras), Projects and Works. They report to the executive director in charge of their division.

The Board issued a list of powers which it has delegated to the Chairman/Managing Director. These are divided into six sub-categories: budget and appropriations; borrowing; establishment; works; purchases and contingencies and miscellaneous. These powers include authorization to approve loans; to borrow money; to create positions and appoint and promote officials; to sanction projects and accept contracts; and to purchase equipment and raw materials. A detailed office order from the Chairman/Managing Director, in turn, re-delegates power to various specified officials. It authorizes certain types of decisions, with financial ceilings for individual instances. Within the limits set down by the delegation, staff members are able to act without previous approval.

The infrastructure directorate is the largest single department, employing ten engineers, one architect, four finance specialists, two lawyers, one documentation expert and two administrators. They act under their executive director, who in turn reports to the Chairman/Managing Director. Both are, in practice, governed by the generous delegation and redelegation orders which allow many decisions to be taken by individual staff members without further consultations. Officially, the infrastructure wing is divided into six parts under deputy chiefs who report to the executive director.

One is in charge of the public health engineering section, another in charge of infrastructure project identification, a third is responsible for finance, a fourth deals with project implementation and the fifth and sixth are administrative and law officers, respectively.

The infrastructure wing has been given considerable autonomy by the current management of HUDCO. There has even been some discussion of the possibility of separating it from the parent organization and establishing it as a independent corporation. But, while that possibility is being discussed, the wing operates with a considerable degree of freedom with regard to the projects it finds and finances.

HUDCO has an impressive track record of financing development projects since its inception in 1970. It has made loans for rural housing projects, for a number of different urban housing programs including shelter upgrading, rental housing programs, basic service schemes, new town development, resettlements and others. The main emphasis of the HUDCO activities has been to ameliorate the housing conditions of the low income (LIG) and weaker sections (EWS) of the population. Prior to 1989, HUDCO's activities with relation to infrastructure efforts had been undertaken on a project basis. In that year, the GOI assigned to HUDCO the larger role of financing urban infrastructure on a area wide basis. In order to respond to this new responsibility, it established an Urban Infrastructure Wing headed by an Executive Director, Infrastructure.

Since 1970, HUDCO has approved 173 schemes classified as infrastructure projects, most of which have been approved since the infrastructure wing was created in 1989. Of these, the large majority (94) have been water supply projects, while 26 others are called area development programs, which are multipurpose infrastructure projects. In addition, sixteen sewerage schemes have been undertaken, ten more which are defined as social infrastructure, while the remainder dealt with diverse infrastructure projects as drainage, roads, bridges and other transport facilities.

The Infrastructure Wing has an appraisal process through which it reviews projects proposed by municipal bodies. In addition to a description of the benefits expected, the appraisals must explicitly address such matters as the legal capacity and administrative capability of relevant institutions to carry out their assigned tasks, evaluate potential environmental problems, and prepare the financial and economic analysis. In a recent appraisal of a water supply project for the municipality of Jeypore, Orissa, for example, the Orissa Water supply and Sewerage Board (OWSSB) was identified as both the borrower and the implementing agency. But, to ensure that the OWSSB had the necessary technical competence, HUDCO required that it create a new division with 11 engineers of various levels of seniority.

Based on the environmental evaluation, a judgement was made that the Jeypore project would "not have any adverse environmental impacts in the region." The reasons cited were twofold: (1) the existing drainage facilities were sufficient to deal with any increase in additional waste water generated as a result of the improvements in the supply of water, and (2) "no forest clearance or ecological disturbance" was anticipated. The State of Orissa agreed to grant part of the required funding to the OWSSB, but the balance was met in the form of a loan from HUDCO. The financial plan identified three sources from which monies would be raised to repay the loan. One was a charge to users based on consumption levels monitored by meters, a second was a one-time connection fee for each metered connection and the last was a contribution from the octroi tax collected by local authorities to be paid directly to the OWSSB.

In another example from the State of Maharashtra, a proposed water supply and distribution improvement project was appraised in the same manner. The Nagpur Municipal Corporation (NMC) was identified as the borrowing agency, while the Maharashtra Water Supply and Sewerage Board (MWSSB) would handle implementation. The institutional assessment found that the NMC had the legal capacity under the Nagpur Municipal Corporation Act 1948 to undertake construction and maintenance of water works as well as to borrow for that purpose. It noted that the NMC had been prompt in repaying previous HUDCO loans while the MWSSB, in existence since 1976, had carried out several previous projects of the same nature.

The potential environmental impact of this project was evaluated and discounted because this was an improvement of a distribution system, and because adequate underground sewer and water recycling capacity already existed. The financial appraisal looked at the NMC audited accounts, noting the statement of NMC officials that 80% of collections for water charges were carried out on the basis of meters and that the percentage of recovery over a recent three year period varied between 78% and 83%. It noted also that the State Government had already approved an increase in the rate charged to make the scheme self supporting. These examples illustrate the fact that the infrastructure wing of HUDCO has an appraisal system in place which might need strengthening for the purposes of this project, but would not need to be replaced, and also has an environmental evaluation process.

HUDCO's experience in the capital markets has been limited to issuing some bonds and debentures and borrowing money from formal financial institutions, but it is far from having the expertise needed to design and package bonds for commercially viable projects. (add Marta)

HUDCO has a solid record of accomplishments in past infrastructure projects and the rate of recovery on its loans is good. However, the prospects for financial aid for state and local bodies is beginning to decline and there will be a new urgency to design self-sufficient projects which channel payments from those projects directly into loan repayment. Moreover, the financial environment for HUDCO is changing which may also have an adverse effect upon HUDCO's financial situation. To fuel the organization's rapid growth, most of HUDCO's funds have been raised through below market rate borrowing from the national banks and other public and private financial institutions. HUDCO has benefitted from a requirement that these institutions keep a large portion of their respective assets in institutions that are deemed to provide a social benefit. But, this requirement is being modified and the size of the required holdings is decreasing. The institutions are therefore beginning to shift a larger portion of their investment portfolios to more attractive instruments and yields. This will effectively reduce HUDCO's ability to attract low cost funds.

HUDCO has attempted to build into its loan procedures an assurance that all project costs will be recovered and used to repay the loans. But, they have also insisted on State Government guarantees. It has been reported that project costs recovered by the borrower are often deposited into a general account, without attribution to their sources. It has also been reported that much of the loan repayment is often made from the State Government grant funds that the latter have committed to the local institutions for budgetary support purposes. Sometimes, too, the loans may be repaid by HUDCO reducing an outlay for a subsequent loan in the amount outstanding for the prior one.

From the point of view of HUDCO's financial statements, the actual source of repayment has made little difference. Whether it comes from actual cost recovery or from a State Government honoring its guarantee in advance, the corporation's financial condition remains healthy. But, State Governments, too, are beginning to feel the effects of financial belt tightening, with predictions that the States may begin to renege on their guarantees, and in fact, one authority claims that a State Government has already done so. If a State declares that it does not have the money to honor its guarantee, he asks, what can be done about it? If this does, in fact, become a pattern, HUDCO could be in serious trouble. The size of its total loan portfolio is enormous and if funds do not flow back into the corporation's coffers, it would be unable to repay its borrowing. The ramifications of such an action would be tremendous.

The infrastructure wing, as a somewhat independent entity, is relatively new and has not yet built up the size of its loan portfolio. Moreover, it has been more rigorous than the housing lenders in its insistence upon a viable financial repayment policy. Nevertheless, if the loans owed to the organization as a whole have to be written off, the infrastructure wing will not escape the effects.

As mentioned earlier, the suggestion was made some years ago that the infrastructure wing might be separated from its parent corporation and reconstituted as an independent national infrastructure company or bank. At the time, the decision was taken to leave it as part of HUDCO for the time being. Separation of the infrastructure facility would have the effect of protecting it against future financial problems in HUDCO. There probably are some infrastructure loans which might turn bad if State guarantees were not honored. But it has not yet had the time to undertake a very large number of infrastructure loans, while at the same time, it has attempted to tie together the project cost and loan, cost recovery and loan repayment. With a sufficiently large inflow of new funds to the infrastructure wing, it should be possible for it to weather any potential financial problems affecting HUDCO. There would, of course, be costs connected with the establishment of a new institution. Some of these could be ameliorated by arrangements under which the new institution could rent the use of existing HUDCO regional offices, or contract with HUDCO for administrative services. Nevertheless, certain additional costs could not be avoided.

HUDCO has considerable experience in the design and development of housing and infrastructure projects and it has a system in place for evaluating projects for funding and for applying criteria to make choices. Moreover, it has carried out these projects throughout the country and thus, has a thorough knowledge of varying conditions in the States and municipal bodies. Moreover it has the confidence of the States and municipalities with which it has worked successfully for so many years.

To participant in the development of commercially projects, HUDCO needs either assistance or upgrading in two specific areas. First of all, it would require some technical assistance and training to strengthen and upgrade its internal organization and management, including the reorganization, and possible spin-off, of a infrastructure operation to carry out the project. Concurrent with its organizational changes, it must develop the capacity to provide assistance to municipalities to design commercially viable projects thereby ensuring that the municipal bodies which will participate in the project can design self-financing projects, prepare realistic feasibility analyses, keep project based accounts and draw up, and observe, a reasonable repayment schedule. With the requisite assistance, and from the point of view of designing and implementing effective infrastructure projects, HUDCO is qualified to carry out the role of financial intermediary.

Secondly, it would need considerable technical assistance to develop an internal capability to design and implement a capital market program for the debt markets. At the present time, it does not have a financial operation or department with the ability to design and market commercially viable infrastructure projects through the sale of bonds to the investing public to be traded in the open market. Nor does it have staff members who are knowledge about this type of financing, and how to develop the financial instruments and procedures necessary to carry out this type of financial operation. (See Marta for review and additional comments for this paragraph)

In summary, HUDCO strengths lie in its ability to develop and finance financially viable municipal infrastructure projects, its good relations with municipalities and States which trust HUDCO, and its understanding and in depth knowledge of the infrastructure sector. Its weaknesses consist of its lack of knowledge and capacity in the development of commercially viable projects and its lack of understanding and capability of the capital and debt markets. Given the dedication of its staff and sufficient time, HUDCO could gain the necessary expertise to develop commercially viable projects for sale in the debt market. It is expected, however, that a minimum of one year, and more likely two years, of specific technical assistance and training as mentioned above, coupled with some reorganization and restricting of the institution, for HUDCO to reach the level where it could operate effectively to develop commercially viable urban environmental infrastructure projects.

Infrastructure Leasing and Financial Services, Limited

The Infrastructure Leasing and Financial Services Limited (ILFS), headquartered in Bombay, is a non-banking financial institution involved in a myriad of financial activities. It is a youthful organization, youthful in two senses of the word: it was established only in 1987 and the average age of its employees is only 30. During the early years of its existence, it has emphasized financial services rather than infrastructure development. During this time, it has been concerned with establishing the legal, financial and organizational structures which can be used to implement infrastructure projects, before embarking on the projects themselves.

Formed under the Companies Act of 1956, it's Memorandum of Association, permits the ILFS to carry out a wide range of financial objectives including:

"To undertake ... the business of Equipment Leasing, Leasing of immovable and movable properties of all kinds and description and right, title and interest therein ...

"To undertake ... the business of merchant banking including consultancy services of all kinds ... and ... to buy, underwrite, invest in and acquire and hold, sell and deal in stocks, debenture stocks, bonds, obligations and securities issued or guaranteed by any Government, State, dominions, commissioners, public body or authority, municipal, local or otherwise, firm or person in India or elsewhere...

"To set up, create ... and manage trusts or funds, including any mutual fund, growth funds, investment funds ... to act as administrators ... of such funds ... and ... as trustees for bondholders ...

"To ... organize, accept or implement any takeover bids, mergers, amalgamations, acquisitions, diversification ... or restructuring of any business ...

"To set up, provide and/or participate in providing venture capital, technology funds or any other funds for seed capital ... including giving guarantees or such other financial assistance as may be conducive for development of new enterprises, innovative methods of production ... to identify projects ... to prepare project profiles ... market research, feasibility studies ... to act as an adviser in the management of undertakings ... by introducing modern methods and techniques and systems ... "

Ancillary objectives include the authority:

"To enter into all types of internal or external foreign collaborations, license arrangements, technical assistance ...

"To enter into partnership or into any arrangements for sharing profits, union of interests, co-operation, joint venture ... with any person ... or corporation ...

"To enter into any arrangement with any person ... company ... Union or State Government, Municipal or any local or public Authority ... and to obtain from any such person or ... authority any right, privileges or concessions which the company may think ... desirable ...

"To draw, make, execute, issue, accept, endorse, discount and negotiate promissory notes, Mortgage backed securities ... certificates, debentures ...

"To borrow or raise money, or to receive money on deposit or loans at interest ... for the purposes of financing the business of the Company ...

"To aid any Government, State, Municipal Corporation, Company, association or individual with capital, credit, means or resources ...

"To promote, form, establish or aid in the promotion ... of any company ... subsidiary to this company ... for the purpose of acquiring or ... taking over the entire undertaking of this Company or any of its subsidiary undertakings or any property or rights ... or any of its contracts ...

"To engage experts to investigate ... social environmental and other conditions ... " and

"To establish contacts with, to work in liaison with, exchange ideas with ... agencies, bodies, institutions, experts, in India and abroad ... engaged in betterment of environment including pollution control, providing of basic amenities to the public, engaged in development of better environment ..."

There can be little doubt that ILFS, as presently constituted, has ample legal authority to undertake the activities contemplated by the project.

ILFS is a public corporation, created initially as a joint venture by the Central Bank of India, the Unit Trust of India and the Housing Development Finance Company (HDFC). The first two institutions are public bodies controlled by the Ministry of Finance and are instruments for implementation of Government policy, while the last is a private company. As a result of a recent fresh inflow of equity, the firm's ownership has been restructured as reflected in the breakdown below:

■	Central Bank of India, & Affiliates	32.2%
■	Unit Trust of India	19.5
■	HDFC Ltd	11.9
■	IFC, Washington DC	11.4
■	ORIX Corporation, Japan	20.0
■	Employees, others	5.0
■	TOTAL	100.0%

Of the fifteen current Board members, seven represent the public sector, while seven represent the private sector or foreign investors, with the 15th member being the firm's Managing Director. Some of the directors represent the institutions listed above, while outside directors come from the Industrial Development Bank of India, the Birla Group, Maruti Udyog Ltd, the Ministry of Transport and the Ministry of Information and Broadcasting. In addition to the Board, it has several standing committees. One, the Executive Committee, is composed of six directors, meets once a month and reviews the actions taken by the managing director and his senior management staff. Another, the management committee, meets periodically to deal with inter-departmental coordination and personnel matters. Aside from issues which claim the attention of the Executive Committee or the Management Committee, each department in the firm is allowed considerable autonomy, subject only to overall supervision by the Managing Director.

The firm has managed to employee a group of highly trained professionals. Among its 154 employees, there are five lawyers, 27 MBAs, 22 Chartered Accountants, nine economists and four engineers. The non-professionals include computer programmers, secretaries and other support staff. Employment of new professional staff members usually requires the approval of at least three vice presidents, and is undertaken only after discussion and vetting by the management committee.

ILFS is a non-bank financial institution, whose business purpose is to provide a comprehensive range of financial services in a number of areas including: corporate finance, consisting of leasing, asset financing, financial advisory services, project financing and capital markets; market operations, including securities trading and brokering; management of mutual funds; venture capital; and finally, the commercialization of infrastructure projects. Since its beginning ILFS has attempted to develop a string of international relationships to gain additional financial resources and technical knowledge which it uses to improve its finance products and expand and development new services.

During its five years of operation, ILFS has focused its attention on developing financial products that bring a more immediate return, ensuring that the company is profitable while permitting it to diversify. This too has given the company the time required to organize itself to undertake the financing of commercially viable infrastructure projects, including the development of the appropriate legal, financial and operational structures needed to support these kinds of projects, arrange for putting such structures in place and finally implementing the projects. This developmental work has meant that ILFS has been the pioneer in this critical sector of the debt market. But, it has only been in the last two years that the economic and financial environment has been suitable to the introduction of debt backed by commercially viable projects of the type ILFS is putting together.

In the infrastructure commercialization area, ILFS is directing its efforts in four sub-areas: power, telecommunications, surface transport and serviced land. Only the last two sub-areas are considered appropriate for financing under the HG Program. In fact, ILFS is implementing its first infrastructure project in the area of surface transportation. The Rau-Pithampur Link Road in Madhya Pradesh State is a 11 km. toll road which will provide an alternative to a 34 km. non-toll road linking the two towns. Not only will this be ILFS's first infrastructure project of any nature, it will also be the first toll road in the country. Its cost is Rs 80 million, of which ILFS is providing equity for Rs 20 million, with bonds being issued for Rs 60 million to five institutional investors. ILFS has fully guaranteed the bonds.

This project will be completed and in operation in August of this year, at which time ILFS will learn whether its financial and economic assumptions and structure were accurate and the operation will truly work. ILFS has set up a Trust to own the project and issue the bonds, the first time in the country that such a financial instrument has been used for an infrastructure project. In addition to this project, ILFS has a number of other transportation projects in its pipeline, such as city by-passes, a city light rail system, bridges and highways. The self-financing features of toll systems, coupled with the lower probable risk element, are clearly the reasons why ILFS has focused its first efforts in this area.

ILFS is working on a number of serviced land projects, which it defines as projects in the areas of water and sewer, solid waste and land development. Although ILFS has identified some projects of this nature, it is going ahead with the planning of only a few, apparently hesitating until the feasibility of commercially viable transportation projects is more evident. The most advanced of the land development projects is the Tirrupur Development Program in Tamil Nadu State, which consists of the development of a comprehensive water and sewer cum roads project for a city with a large number of export oriented textile manufacturing plants.

As a Bombay based company, with a highly educated and sophisticated staff, ILFS states that it needs to improve its capacity to relate to municipal governments officials. The ability to communicate requires a basic level of shared experience and, between the average municipal official and the highly educated employee of ILFS, there is a considerable gap that needs to be narrowed. Considerable effort and energy have to be put in by ILFS to be an effective vehicle to "spread the gospel" of debt financing of infrastructure among the municipal bodies of India. It has received a large number of requests for financing from municipalities and other organizations. But can currently respond only selectively to those which are large enough, or well enough presented, to suggest that the proposal is commercially viable.

As the pioneer in this field, ILFS is currently financing and will continue to finance the most viable of commercial projects, for evident business reasons. Inspite of being the only player in town, ILFS has not been able to respond to the majority of the loan requests it receives because of its limited resources.

Finally, ILFS is a new institution and in spite of its impressive array of backers from the public and private sectors as well as from abroad, it still is in the process of making its reputation in the financial and business sectors. ILFS will have to work hard to gain the confidence of the vast bulk of municipal bodies, those same bodies that it will have to work with if it is going to generate the commercially viable projects it needs to make the bond market work, which in turn will make a measurable impact on the infrastructure deficit. In addressing these perceived needs, technical assistance to ILFS will need to be focused on assisting the institution to develop a wide array of financial instruments, on how to reach and communicate with municipalities, and on ensuring that ILFS develops and implements the kind of projects that sew widespread benefits.

ILFS is the only institution in India in a position to develop commercially viable urban environmental infrastructure projects. From the standpoint of ensuring that demonstration projects in the area of urban infrastructure are also commercially viable, using marketable financial investments, ILFS appears to be more qualified, at this time, than any other institution in the country to be the financial intermediary for this project. Not only does the institution have the capability, but it is desirous of undertaking a selected number of such demonstration projects. It has developed a pipeline of project proposals, some of which appear to be appropriate for financing projects under the HG program.

If selected as financial intermediary, ILFS should be able to provide, rather quickly, demonstration projects that meet the requirements of the debt market. ILFS would thus be able to illustrate the utility of commercial debt instruments as a means of raising money for infrastructure projects of the type being illustrated here. The conditions precedent for success, in terms of cost recovery and loan repayment out of project revenues, would be emphasized. Moreover as a result of the implementation of these projects, it should be able to formulate and operationalize a number of financial instrument models. But if debt financing is to become an important component of the resources raised for infrastructure in the future, many deviations from the ideal will be required. In order to make the approach politically palatable to local municipal and State officials, the required measures of fiscal discipline will need to be introduced gradually and on an almost individualized basis.

It should be noted, perhaps as a measure of excessive caution, that the financial regulatory climate in India today is rudimentary. As a result of the economic liberalization policies of the Government, opportunities for new financial activities are opening up all the time. New financial companies, with bright and knowledgeable employees, are on the cutting edge of India's new financial revolution. As such, they are well ahead of regulatory structures or institutions, both in terms of timing and comprehension. Until they face competition that is equally competent, there is no effective way to safeguard the public welfare.

<u>National Institute of Urban Affairs.</u> In January, 1976, NIUA was registered as a non-profit organization under the Societies Registration Act XXI of 1860. In its Memorandum of Association, the objectives include the following:

"to act as a center for advanced study of urban problems and to provide and promote the necessary training and research facilities;

"to initiate and assist in developing suitable policies and programs pertaining to the problems of urban development and allied fields by the Central, State and Local Governments as well as private and public sector undertakings;

"to act as an agency for strengthening the interaction on urban affairs between the Government and the people, local authorities, legislature, and members of academic, industrial and business communities;

"to mobilize available expertise in the field of urban affairs and to offer and coordinate technical and consultancy services with or without payment of remuneration as necessary; [and]

"to organize and facilitate study courses, conferences, seminars, lectures. research and investigations in matters pertaining to urbanization, urban environment and urban development and administration ..."

These provisions adequately establish the legal authority of the Institute to undertake the training and technical assistance activities envisaged within the scope of the project.

The Institute is a public entity, supported in part by an annual grant from the Ministry of Urban Development (MOUD), with the remaining supplemental funds deriving from other, often private, sources as well as from consulting contracts. A recent visitation by a Parliamentary Committee examining the finances of the MOUD resulted in the Ministry confirmed the continuation of the current level of financial support.

There are several categories of membership in the Institute: distinguished individuals who founded the organization in 1976; governments of states and territories; urban authorities and organizations; research institutions and universities; municipal corporations, area development authorities, departments or agencies of state governments; and private sector organizations. By invitation, individuals "who have achieved distinction or special knowledge" may join the Institute. The fees, most of which are substantial, are graded by category. The number of representatives which a corporate member may send to the annual general meeting of the general body also depends upon the category of membership. There are, at present, some 75 individual and corporate members.

At the annual general meeting, the general body considers the annual accounts and the annual report, recommends to the government (in practice, MOUD) the name of a person to be appointed to serve as President of the Institute, elects a Vice-president (one of two) for a two-year term and elects the members of the Governing Council. The 19 member Governing Council is made up of the elected members, three persons designated by the Government of India (MOUD), the President and two Vice-Presidents of the Institute, and the Institute's Director, as secretary. It meets four times a year and, in the words of the Institute Rules and Regulations, it is responsible for "the general superintendence, direction and control of affairs, funds, assets and properties," and [for exercising] "all powers [and doing] all things which may be necessary or expedient for the furtherance of the objects of the Institute."

The Governing Council involves itself with the appointment of senior professional staff. Among its other responsibilities include the preparation and enactment of bylaws and approval of budget estimates. However, most of the day to day operation of the Institute is in the hands of it's Director, with input from its President, when necessary. The President is always a distinguished urban scholar or practitioner, appointed from outside the general body by the Government of India, but on that body's recommendation and is appointed for a two-year term. He presides over meetings of the General Body and of the Governing Council and may exercise those powers delegated to him by the Governing Council.

The Director of the Institute is in operational charge of the Institute. He is appointed to the full-time position by the Governing Council, although the MOUD needs to approve the choice. He serves under a contract for a period of ? years. The current Director is a former Professor of Urban Planning at the University of Ahmedabad. The Director is empowered to appoint all permanent staff members below the senior most level, to undertake negotiations for projects and to appoint all project staff who serve for a specified term.

There are, at the present time, 15 professional full-time staff members at the Institute, encompassing the disciplines of urban and regional planning, economics, municipal finance, social planning and environmental planning. Professional staff members are supported by research assistants and clerical staff.

The NIUA has an impressive record of practical and scholastic research and analysis in relevant areas of urban affairs. Some of its achievements are mentioned below.

- Urban basic services program for UNICEF. This effort is taking staff members from the institute into many cities and towns in many parts of India. It necessitates interaction with municipal officials and NGOs, familiarization with the shortcomings and needs of local authorities and an understanding of the capabilities of particular local governmental organizations.

- Urban Policy Study for MOUD. The purpose of this study is to determine the desirable scope and objectives of urban policy, to suggest a strategy and present options for sustainable urban development.

- Urban Information System Design and Monitoring of Urban Trends. This assignment will aim at establishing within the NIUA an information base and a system for retrieval of information. It is organized so that it can be used for decision-making.

- Urban development strategy for the State of Gujarat. The study will present a set of options with implications for infrastructure and services, a series of suggestions relating to financial mechanisms and ideas related to the desirable roles of the public and private sectors in meeting the challenges of urban development.

- Urban Services Study, for the Planning Commission. Examined the institutional arrangements for the provision of services including public health, transportation, water supply and garbage disposal. It was built around case studies of three cities.

- Urban Services Study (#2), for the Planning Commission. Study of the pricing of two core services, water supply and waste disposal. It attempted to suggest ways to improve the balance between the cost of provision and the costs recovered from users. It was based on research conducted in 9 cities in 3 states.

- Informal Housing Finance Study. For National Housing Bank, Assembly of information about the real sources of funds for housing in all sectors of society, including the informal sector. It demonstrated that formal financing systems, although they contribute a considerable amount of money, only reach a small percentage of the actual number of people who borrow for housing. Most resort to informal sources. Existing lending procedures are far too rigid to allow small borrowers to take advantage of liberal terms and conditions at which formal institutional sources extend housing finance.

Other projects of the Institute have focused upon problems of poor women, slum upgrading, sites and services, district level spatial planning and transport alternatives in medium sized cities. The work of the Institute now and in the recent past demonstrates a professional strength that is capable of undertaking the demands which might be placed upon it by the TA and training component of this project. NIUA has recently completed a two year collaborative arrangement with Research Triangle Institute of North Carolina, for upgrading NIUA's skills on action oriented research and application in urban policy analysis. This activity was funded under USAID/India's TASP Project.

NIUA permanent staff resources will need to be supplemented by project staff to carry out this project described in this Paper. These will be required for two reasons: one, to meet the additional administrative needs that this project would require; and, two, to supplement the present to meet the demands of developing and carrying out training to participating institutions and to promote the concept of self-sustaining infrastructure finance.

The NIUA will provide a strong institutional home for the TA and training component of the project. Insofar as the group training effort is involved, it has a strong track record of designing, organizing and conducting workshops and seminars. It has also had relevant experience in developing projects in municipalities throughout the country. It will also be able to contribute to that team from its own professional resources.

NIUA understands the importance of the project and it understands the difficulties inherent in overcoming the inertia which will characterize the initial response of most municipal officials. Nevertheless, NIUA has, in the past, functioned primarily as a "think tank" or a research organization. There is some danger that it will find it difficult to take the needed degree of initiative in searching out potential borrowers and projects. But it has strong ties to MOUD and depends upon the Ministry for much of its financing. It will be up to the leadership of the Ministry to make sure that the NIUA team undertakes this responsibility diligently.

On balance, the NIUA is well positioned to be the center for the TA and training component of the program.

The Municipalities and their Governments

With the ratification of Amendment no. 74 of the Indian Constitution, the role of municipal government and the management of municipalities will be changed forever. Exactly how and to what degree will only be seen once the Amendment is actually implemented, which will begin to occur over the next few months. Therefore this annex will discuss municipalities as they have and are currently functioning, however it will also contain a section on how the Amendment may have a impact on the way municipalities are governed in the future. But first, the present situation.

Municipal government in India covers five distinct types of urban local authorities or bodies:

- Municipal Corporations; are fully representative bodies, deal directly with the State Government, are usually found in the larger cities and have more tax powers, functional competence and autonomy in decision-making than other types of municipalities.
- Municipal Councils; also are fully representative, enjoy many of the same powers as Corporations but to a lesser degree, and deal indirectly with the State through district officers.
- Notified area committees; have fully or partially nominated bodies and are constituted for rapidly growing towns which do not qualify for designation as a municipality.
- Town area committees; similar to the Notified Area Committees, except that they are small townships having pronounced rural characteristics.
- Cantonment boards; are created under central legislation and consist of partially elected authorities supervised by the Ministry of Defense.

For the purposes of this activity, it is probable that only municipal corporations would have the wherewithal to participate in the program at least in the program's initial phases. Therefore the comments in this section will apply in general to municipal corporations.

Municipal Functions. Municipal functions can be broadly classified in terms of house-keeping tasks, regulatory activities and civic responsibilities, such as the provision and management of urban infrastructure. Regulatory functions include, for example, enforcement of building codes and standards. Civic responsibilities include the provision of water, sewerage and drainage services, street lighting, roads, and other types of public works. Constitutionally, the States have responsibility for 38 activities, which can be delegated to the municipalities. Of the 38, on the average 16 of them have been partially to municipalities, of which there is a substantial activity in only eight, including the ones listed in this paragraph above. However in some cases, there has been a tendency for the States to reverse some of these responsibilities, which has been justified on the grounds of poor performance and inefficiency of the local bodies. Moreover many States have set up statewide water and sewer boards which are taking the responsibility for the discharge of these functions.

Taxing Powers and Authority. Municipal governments enjoy tax powers and functional competence as conferred on them by the State governments through a process of delegation incorporated in the governing legislation constituting such authorities. The taxation power of municipal corporations in general is limited to a few items and are compulsory in nature. However, the tax powers of the other types of urban local authorities cover a wider range, are optional in nature and are subject to a procedure for their imposition requiring the final sanction of the state governments.

State control over municipal taxation takes place in two ways. The State controls the imposition of a new tax by requiring the municipal government to obtain State permission whenever it wishes to impose a tax not covered in the municipal legislation.

Revenue Sources and Levels. The principal source of municipal revenue is taxes, of which there are to types: assigned and shared. Assigned taxes are those taxes that the municipal has the sole right to the tax proceeds. Examples of this tax in most states are the entertainment tax, receipts from fines in breach of municipal laws, and in some states, land revenue and the entry tax. Shared taxes are those taxes where the state and the municipality share the proceeds and the list varies from state to state. But examples of this type of tax are entertainment taxes, land revenues, property tax and registration fees, motor vehicle taxes, water and drainage and the Octroi. In addition to taxes, municipalities receive revenue grants from the States, both for general purposes as well as for a specific use.

Borrowing Authority. The power of municipal bodies to borrow is governed by the Local Authorities Loans Act of 1914. Under this act, state governments must sanction all borrowing by municipalities, regardless of the source. Municipal Corporations, which are the governing bodies of the largest municipalities, may borrow on the open market as well as from state governments, while Municipal Councils, which govern smaller cities, may only borrow from state governments. Further, there are limits on borrowing, both with respect to the amount of the loan and the term, although for the largest cities of Bombay, Calcutta and Madras, the limits have been set higher.

Among other purposes, municipalities may incur loans for municipal infrastructure and public works. The loan proceeds must be spent within the municipal jurisdiction and may not ordinarily exceed Rs.500,000 when raised in the open market or Rs.2.5 million when provided by the state government. The period of repayment is usually 30 years, but in the case of a municipal corporation, it may range up to 60 years.

State governments also fix interest rates and the timing of municipal borrowing, including the terms and conditions. Final approval is accorded only after consultation with the Reserve Bank of India and, at times, with the central Ministry of Finance. The Reserve Bank settles the timing of all public borrowing in the country and usually these are not made more than once a year. The interest charged by the State Government for its loans is usually the bank rate plus 1 percent for the guarantee charge on State loans. In the case of an open market borrowing with a State guarantee, the Reserve Bank does not permit fixing an interest rate in excess of the rate on government loans. All other terms and conditions of municipal borrowing are either prescribed by law or covered by the State government.

Financial Resource Base.

Municipalities in general derive about 60 percent of current revenues from taxes and another 15 percent from non-tax sources, with State Government grants providing a further 25 percent of revenues. Octroi and the property tax (and related taxes) dominate the tax structure, with each accounting for about 40 percent of tax revenues, and 25 percent of current revenues. The reliance on taxes such as the entertainment and profession taxes is, however, beginning to increase. The relatively low non-tax receipts reflect in part the limited coverage and low rates of user charges for services. The most important source of capital is the current budget surplus, which financed nearly two-fifths of capital expenditures. The next main source was borrowing. State Government assistance took the form of both loans and grants, with the former accounting for more than one-half of the funds.

2. ENVIRONMENTAL ANALYSIS

As part of the Threshold Environmental Review for the Infrastructure Finance Component of the FIRE project in India, an Initial Environmental Examination (IEE) was conducted to determine the applicability of regulation 216 and the appropriate measures to be employed to comply fully with both the spirit and letter of this regulation. In the course of this review it was determined that a categorical exclusion would be appropriate with the strong proviso that USAID-India would make a substantial contribution under this project toward strengthening the capacity of Indian institutions to perform environmental reviews and impact assessments.

Regulatory institutions which will have a role in the environmental issues are:

Ministry of Environment:

Indian government, including environmental activities, is far more decentralized than most other countries in Asia. As in the U.S., the central government establishes minimal environmental quality standards which the states are required to meet or exceed but actual implementation is largely left to the state governments. While the central government is involved in decisions related to large the dams and very large industrial facilities, most review of environmental impact assessments is also delegated to state Pollution Control Boards.

State Pollution Control Boards:

In the aftermath of the Bhopal tragedy, there has been substantial effort to improve the capacity to assess potential health and environmental impacts from industrial facilities, particular with regard to hazardous and toxic substances. Relatively little attention has been paid, however, to potentially adverse impacts resulting from poorly designed infrastructure.

The state Pollution Control Boards normally do not require environmental impact assessments of infrastructure projects. They will, however, conduct such reviews when requested. The Director of the Pollution Control Board in Karnataka appeared well trained and very interested in this issue. He also expressed interest in obtaining additional training in environmental assessment for both himself and his staff. Similar interest was also expressed in previous meetings in Maharashtra and Gujarat.

While the State Pollution Boards appear willing to take on this review task, it will be an additional responsibility for some boards and will require some additional training and technical assistance.

Financial institutions which are expected to be involved in urban infrastructure projects are:

Housing and Urban Development Corporation:

The Housing and Urban Development Corporation (HUDCO), which is one of the possible, has substantial experience in conducting environmental reviews and designing projects to mitigate potentially adverse impacts. Dr. Rana, the Director of the Infrastructure Wing of HUDCO, currently has a staff of four masters degree level environmental scientists and engineers specifically assigned to the task of environmental review. HUDCO has well-established review protocols and an environmental checklist to assure against unanticipated adverse environmental consequences.

In conversations with Dr. Rana and other members of the HUDCO staff, their experience and the scope of their reviews was impressive. They seemed fully aware of potential problem areas and potential mechanisms to avoid or mitigate them. For example, they were very familiar with the potential problems associated with substantially increasing the water supply to urbanized villages without first planning for drainage and waste disposal. They also seemed well aware of other potential problems related to water supply, waste disposal and transportation.

In addition to their own internal review, HUDCO also frequently calls on the State Pollution Control Boards to review and sign off on their proposed projects. They would readily accept such review by the Pollution Control Boards as a condition of this project.

The other potential FI, the Infrastructure Leasing and Financial Services Corporation (ILFS), is a new energetic organization which still lacks many of the bureaucratic procedures of the much larger and more established HUDCO. While these characteristics are attractive from an entrepreneurial perspective, special attention will have to be paid to developing the necessary environmental procedures and protocols. Despite its relatively limited experience in this area, one potential advantage of ILFS would be their willingness to hire outside consultants to perform necessary environmental assessments as needed. While HUDCO already has almost all of the necessary experience inside, ILFS would gain from having an external viewpoint.

Discussions with management revealed them to be very pragmatic in this regard. They readily admit that they are a for-profit organization with one of their functions being the provision of infrastructure. At the same time, however, they accept the need to conduct environmental reviews and will commit to hiring the necessary consultants to supplement their more limited staff. Environmental aspects are an integral part of the feasibility or appraisal of each and every project that the company considers. Nevertheless, ILFS will require some additional training and technical assistance to conduct the necessary environmental impact assessments.

NGOs and Private Consulting Firms:

India already has a number of effective environmental NGOs and consulting firms capable of performing routine environmental impact assessments. While certain hazardous materials or other specialized subjects may require some additional outside expertise, most environmental assessments envisioned under this project could be performed with resident Indian experts.

Consulting firms can help to supplement the resident expertise of the financial institutions, particularly ILFS, and NGOs, when informed of the project requirements, can help monitor the performance.

Targets for Environmental Training:

There are two primary targets for environmental training under the Infrastructure Finance Project:

- Regulatory Institutions and
- Financial Institutions.

While the central government would be eligible for some training, as the State Pollution Control Boards have primary review authority, they would be the more critical target. The objective here would be to supplement the existing expertise these organizations have with regard to industrial pollution by training them regarding potential adverse consequences of urban infrastructure. The first targets for this training would be the State Pollution Control Boards in those states where the first projects will be undertaken, probably Karnataka, Maharashtra, and Gujarat.

Although this project proposes to involve the State Pollution Control Boards in the review process, the real responsibility for actual preparation of environmental assessments lies with the financial institution. HUDCO and/or ILFS thus become the central focus for environmental training in environmental impact assessment. While a state board may be involved in reviewing some of the proposed projects, the financial institution will obviously be involved in each project that it finances. Furthermore, the State Pollution Control Board will normally only be involved in the final stages of project design, while the financial institution and the firms it supports will have greater opportunity to be involved through the process. The will, therefore, have even greater opportunity to suggest design alternatives and incorporate mitigation strategies. Finally, the financial institution obviously has a stake in the financial success of the project and to the extent of cost effective control measures can be incorporated into the design they will also tend to make the projects themselves more viable.

3. SOCIAL ANALYSIS.

India's population profile presents a vast pattern of diversity. Her people range from the suave, sophisticated urbanite in Bombay to the uneducated, share cropping peasant in the rice paddies of West Bengal. Not surprisingly in a developing country like India, there are many more of the latter than the former. About three quarters of the people live in rural areas; nevertheless that leaves an urban population of over 200 million. But the rural/urban differences are not the only ones, nor even the most important. The mixture of cultures, languages and religious practices is further complicated by communalism, caste conflicts and local chauvinism.

In 1964, Professor Morris-Jones identified two main sets of attitude and values which characterize the Indian politic. One, based on Western, liberal, democratic and secular ideals, was strongest at the level of the Central Government and its institutions: the Parliament, the courts and the civil service. The other, which was built around primary loyalty to caste and kinship ties, was the norm in rural panchayats and the urban local authorities. The battleground between these two contrasting sets of values was at the level of the State Government. The depth of the divide suggested by this analysis cannot be overemphasized. To the believer of one set of ethics, the logic of the other is nothing less than criminal. Finding common ground is neither simple nor easy.

The implications of this conflict on the success of the project are profound. It is an attempt to structure a process, logical in terms of western economic thought and practice, in which people at all three levels of government have to work together and share the same aims. To "sell" the program at the level of the individual municipalities will involve long hours, flexibility, imaginative packaging and a sympathetic understanding of local dynamics. But it can succeed because it is offering to the municipalities something that they want and need: money for infrastructure projects. To the extent that it does succeed, it will make a contribution to the success of another initiative now underway in the India, the Nagarpalika Bill, or the 74th Amendment of the Constitution.

Under this amendment. the existence of municipal governments will, for the first time, be constitutionally recognized and protected. A new and direct relationship between local authorities and Central Government institutions, without the intermediation of State Governments, will now be possible. For such a relationship to flourish, there will be a need for real communication.

This need is dramatically underscored by the requirements of the present project. Only if it is able to establish such communication can it expect to have a lasting impact upon the pattern of financing urban environmental infrastructure in India. In order to achieve that, it will need to evolve an ability to bridge the gulf in comprehension which now divides a small group of bright - mostly youthful - money managers in Bombay from the elected and appointed officials in the vast majority of the nation's municipalities.

Money for the provision of infrastructure has traditionally been made available to local authorities by, or though, State Governments. This was widely justified on the grounds that the States, and the Center or National Government, had appropriated those revenue sources capable of generating substantial proceeds, even though the bulk of those proceeds were realized from urban areas. The need for localities - in principle - to recover the costs of operation and maintenance was recognized but, even here, if political considerations made full recovery of costs infeasible, the States were expected to come to the rescue.

That costs could be recovered from users (except for subsidies, on humanitarian grounds, to those who cannot afford to pay); that, through cost recovery, municipal loans can be repaid, with interest; and that the ability of a municipal body to finance itself offers a measure of independence from State Government control, are all new ideas that have yet to percolate into the consciousness of most local leaders. The finer points of fiscal engineering, relating to the choice of instruments, the methods of repayment, interest strategies, the use of secondary markets and the like, are beyond comprehension.

The difficulty of even discussing these issues was emphasized by the managing director of Infrastructure Leasing and Financial Services, Ltd. (ILFS), the financial services firm located in Bombay. He made the point that he and his colleagues did not even speak the same language as municipal officials. While ILFS could make itself understood to a few local institutions, such as the Bombay Municipality, the City and Industrial Development Corporation of Maharashtra (CIDCO), and to Indian Administrative (IAS) officers, most municipal officials were suspicious of the company, its methods and its motives. He thought that municipal officers would always be more comfortable with the people from government agencies, such as the Central Government's Housing and Urban Development Corporation (HUDCO), with whom they had been doing business for years.

The IAS may offer a linguistic bridge, of sorts. Officers from this Service are now commonly assigned by State Governments to serve as commissioners in municipal corporations, a position analogous to that of city manager in many American cities. But, in those Indian cities where local elected government has been suspended by State decree, the IAS commissioner also has a role in determining policy as well as carrying it out.

The IAS is the successor to the pre-Independence British Indian Civil Service (ICS). It is made up of an elite group of administrators, recruited initially on the basis of a rigorous examination administered on an all-India basis. These recruits undergo a comprehensive training program at the IAS Staff Training Center in Mussoorie. They graduate in annual "batches," with which they are thereafter associated, and are then assigned initially to State cadres. Ethnically, each State cadre includes a substantial number of members from other States. Typically, the novice IAS officer begins his, or her, career in charge of a sub-division of one of the districts into which each State is divided. By the time he might be posted as a municipal commissioner he will have held a variety of important administrative posts.

The underlying concept of the Service is that each officer is a generalist administrator, capable of running any organization. He is shifted around every two to four years so that he does not become identified with any particular institution or specialty. Nevertheless, experience is taken into consideration when postings are assigned, and any IAS officer who has held a number of positions dealing with urban affairs, for example, is likely to continue to do so. Although they are trained in administration and not in finance per se, IAS officers working at the municipal level are intelligent and experienced enough to understand the language of finance, and are generally able to translate financial matters for the benefit of municipal officials.

The intermediary role of the IAS officer in the municipality is particularly important at this time of constitutional change. As the local bodies establish new relationships, not only with their parent State Governments, but also with Central Government institutions, there will be a premium on his ability to circumvent formal channels of communication by contacting appropriate "batch mates" or other members of the IAS. An important part of his task will be that of bringing home to local officials, both elected and appointed, the new realities in the field of municipal finance. That, in turn, will require a common language to bridge the divide between Central and local perceptions.

This project, over time and with sensitivity on the part of its training and technical assistance component, can play a role in creating that common language. To the extent the immediate aims of the project are achieved, and debt finance is channeled into urban infrastructure, the people of India's municipalities will be the beneficiaries. To the extent that it also helps to contribute to the larger urban initiative now underway, it will have made an immeasurable contribution towards breaking down traditional mutual suspicions and antagonisms that plague Indian political life and hamper economic progress at all levels.

Impact on Women

Women, especially women in the lower income and lower caste communities, face many forms of discrimination in India. They are commonly treated as property; as children, they are liabilities for whom dowries must be found; of marriageable age, they are disposed of to a family which will accept the dowry offered; and as wives, they are valued for the sons they rear. If promised dowries are not forthcoming, or if wives prove infertile, they face the danger of, at best, abandonment, at worst, injury or death.

While this project does not address the adverse social position of women directly, it does aim to promote an improvement in the living conditions in India's municipalities, especially for women who make up a substantial portion of the country's urban population. Women constitute an important part of the urban work force, often employed in jobs involving heavy, back-breaking work over long hours. They are also the family members responsible for creating whatever comfort can be created in what are often environmentally brutal urban conditions.

To the extent that urban infrastructure can be improved, then urban life will be improved, urban health enhanced, urban employment generated and the urban environment rendered more liveable. Women stand to gain substantially from all these improvements. Because of their subservient position on the social ladder, and because they have to undertake the least desirable of activities, their benefit from improved municipal conditions should be marginally greater than that received by their male counterparts.

4. ECONOMIC ANALYSIS

Rather than prepare a conventional analysis of India' highly complex and changing economy, it might be best to try to describe the economic environment in which this project is expected to operate over the next few years -- that is, if the present Central Government has its way -- and how this operating environment will affect the project. The source of this projection is a Discussion Paper recently prepared by the Ministry of Finance, entitled Economic Reforms: Two Years After and the Task Ahead, which outlines a reform agenda for the next three years while explaining the rationale of the reforms undertaken in the last two years. Those parts of the Paper that have an impact on this project will be stressed in the paragraphs below.

Fiscal Reforms. First of all, the aim of the Central Government is to set the economy on a sustainable path of a 6 to 7 percent annual growth rate through a series of reforms that will lead to a substantial increase in incomes and a rise in employment. At the same time, the combined fiscal deficit of the Central and state governments would be reduced from about 7 percent of GDP in 1993-94 to about 5 percent in 1996-97. This requires better targeting and reduction in subsidies, an overhaul of the approach towards administered prices and user charges, a reduction in budgetary support to public sector enterprises and a tightening of procedures to contain the growth of public expenditures.

Financial Sector Reforms. The Paper further envisages the comprehensive reform of the financial sector, with the overall strategy being to increase banks' profitability and to make a wider choice of financial instruments accessible to investors and issuers. It contemplates a complete ban on generalized loan waivers, improved recovery and recycling of public savings, continuation of the phased reduction in Statutory Liquidity Ratio to 25 percent, phasing out of ceilings and floors on bank deposit and lending rates except for the continuation of a single concessional rate set about three percentage points below the rate charged to prime borrowers, and the strengthening of institutions and procedures for bank supervision.

Institutional Reforms. Special emphasis is being put on improving infrastructure services to sustain the operational efficiency of this key sector of the economy. Given the constraint on finances at all government levels, it is considered imperative to induce greater efficiency and accountability by changing the monopolistic nature of the infrastructure sectors, making the public entities operate on commercial principles, providing greater autonomy to such entities and suitably revising their pricing and allocation strategies.

The success of the Government in achieving its ambitious and far reaching reforms will have a major impact not only on whether the infrastructure finance program succeeds, but to what degree the project's goal is met. On the fiscal reform side, the reduction in subsidies coupled with the decrease in budgetary support of public sector enterprises will make market rate bond issues from the private sector more attractive because of the drying up of below market rate funds. This shortage in turn will force local bodies to seek financing from the private sector for urban infrastructure, and because market rate funds will be "the only game in town", the yields will be attractive to investors.

The financial sector reforms will have other impacts on the program. In the first place, public sector institutions will no longer have access to the same high level of below market rate funds, due to the reduction in the SLR. This will require public sector institutions, including those institutions funding urban infrastructure, to seek funds from other sources, and the only new source of funds will be the private sector. And even though the terms may be market rate terms, those public institutions will have to pay the rate. At the same time, they will have to become more cost conscious in order to afford to borrow money at higher rates.

The institutional reforms are especially relevant to this program. In providing assistance to HUDCO in particular, that institution will begin the process of operating on commercial principles, and if successful will show that such public sector institutions can successfully compete with the private sector.

5. ILLUSTRATIVE BUDGET

(for DA funded Technical Assistance, Training & MSS see Annex I)

6. POLICY MATRIX

(see Annex II)

Illustrative Budget: Management Support Services
Infrastructure Finance Component

Item	Year 1	Year 2	Year 3	Year	Year 5	Year 6	TOTAL
1. Home Backstop: 45 P/Ms @$170/day	7650	7650	7650	7650	7650	7650	45900
2. Sr. Project Mgr. Wash DC. (1)	7200	3600	3600	3600	3600	3600	25200
3. Project Mgr. India (2)	86000	86000	86000	86000	86000	86000	516000
4. Subtotal of U.S. Salaries	100850	97250	97250	97250	97250	97250	587100
5. Overhead @125 % on US Staff	126063	121563	121563	121563	121563	121563	733875
6. Total of Salaries & O/H	226913	218813	218813	218813	218813	218813	1320975
7. Allowances, etc. (see Below)	76500	59500	49500	59500	49500	61500	356000
8. Dep. Proj. Mgr. India (3)	12000	12000	12000	12000	12000	12000	72000
9. Secre. & Driver	11000	11000	11000	11000	11000	11000	66000
10. Auto, Equipment, etc	40000						40000
11. Office Rent 550 Ft2 @$150/Mo	1800	1800	1800	1800	1800	1800	10800
12. Benefits/Local Hires @45% of Salaries	10350	10350	10350	10350	10350	10350	62100
13. Total Budget (6 to 11 above)	378563	313463	303463	313463	303463	315463	1927875

(1) Sr. Project Manager, part time in Washington, will be required for 1 month in first year to assist in project start-up and oversight, and 2 weeks in each year thereafte
(2) US national, full time in India, at USAID maximam salary; may be replaced once since a 6 year assignment might not be acceptable
(3) An Indian national, full time, in India.

Allowances,etc:

Post Differtial	7500	7500	7500	7500	7500	7500	45000
Int'l Travel, Perdiem	12000					12000	24000
Domestic travel (1 trip/month of 1 week other cities)	12000	12000	12000	12000	12000	12000	72000
Housing	20000	20000	20000	20000	20000	20000	120000
Education	5000	5000	5000	5000	5000	5000	30000
HHE/Storage/Auto	20000	5000	5000	5000	5000	5000	45000
R&R,HL		10000		10000			20000
TOTAL	76500	59500	49500	59500	49500	61500	356000

ILLUSTRATIVE BUDGET: TECHNICAL ASSISTANCE AND TRAINING

COMPONENT	Unit Cost	Number	Total Cost
Assistance in developing training curriculum, new training techniques, training of trainers; TA to training groups, such as NIUA, HUDCO's training arm, etc. in course design and development, etc	$20,000/Mo.	24 P/Ms	480000
Specialized assistance to municipal bodies to prepare commercially viable projects, incl. financing mgt., cost accounting, cost recovery techniques, user fees and charges, loan application prep., etc. (US Consultants)	$30,000/Mo	18 P/Ms	536000
Assistance to HUDCO to prepare commercially viable projects, to restructure/reorganize itself, to learn financial underwriting, financial engineering and instruments, and to prepare itself to become a financial intermediary	$30,000 Mo.	36 P/Ms	1080000
Policy assistance to Central & State Govts, Land and infrastructure development TA, Land Information Systems, etc.	$30,000 Mo.	12 P/Ms	360000
TA to the Financial Intermediary to assist in the development of specialized financial engineering skills, instruments and techniques	$30,000 Mo.	6 P/Ms	180000
Assistance to FIs, Municipalities, State Pollution Boards, Central Government in environmental aspects relevant to each of these groups	$30,000 Mo.	12 P/Ms	360000
Assistance in all the above aspects by Indian firms and individuals	$1,500 Mo.	300 P/Ms	450000
SUBTOTAL OF SHORT-TERM TA			3446000
Regional Training in various topics:			
A. Short Courses of 4 days	$1,800/per.	40 people	48000
B. Study tours of Asian countries	$3,000/per.	30 people	90000
C. MA program en environment (AIT)	$22,000/per.	3 people	66000
In-country Seminars, workshops, conferences (US/Indian personnel costs included in above TA)	NA	NA	200000
U.S. Training in selected topics related to above TA:			
A. Study tours of 2 weeks	$6,000/per.	30 people	180000
B. Short Courses of 2 weeks	$7,500/per.	30 people	225000
C. Short Courses of 3 weeks	$10,000/per.	20 people	200000
TOTAL TRAINING			1009000
TOTAL SHORT-TERM TA & TRAINING			4455000

FINANCIAL INSTITUTIONS' REFORM AND EXPANSION (FIRE) PROJECT
URBAN ENVIRONMENTAL INFRASTRUCTURE FINANCE COMPONENT
DRAFT POLICY MATRIX
Redrafted July 19, 1993

Policy Reform I: Promote the development of a commercially-viable infrastructure finance system:

Policy Objective	HG Conditions Precedent	Technical Assistance & Training Support
1. Provide assistance to a national level infrastructure finance institution to provide infrastructure development guidelines and establish an infrastructure finance system.	1.1 Identify/establish financial institution and provide operational responsibility & authority.	1.1 Develop capacity of finance institution to underwrite and service project infrastructure bonds.
	1.2 Identify potential local government borrowers.	1.2 Improve capacity of local government to formulate commercially viable projects, to provide land information, and to plan and implement a land title registration system.
	1.3 Appraise local government ability to prepare loan applications for water, sewer, and/or solid waste collection projects.	1.3 Provide legal & regulatory assistance.
	1.4 Develop a variety of financial engineering packages for infra-structure projects.	1.4 Improve capacity of underwriters.
	1.5 Identify vestment community interest in buying infrastructure	1.5 Improve capacity of local gov'ts to generate revenues.

backed bonds.

1.6 Ascertain capability of local gov'ts to service bonds.

Policy Objective:

2.. Promote innovative infrastructure finance methods such as build, own, operate, transfer (BOOT); or build and transfer for payment through transfer of physical assets such as land.

HG Condition Precedent:

2.1 Form private/public ventures to develop commercially viable projects.

2.2 Authority from state & local government to undertake projects.

2.3 Prepare dynamic spacial plan; capital improvement plan.

2.4 Identify specific water, sewer and/or solid waste collection projects.

2.6. Prepare feasiblity for each project identified, including financial instrument to finance each project.

Technical Assistance & Training Support:

2.1 Develop ventures capacity to plan, finance, construct and manage BOOTs, etc.

2.2 Improve capacity of local government to implement land title registration system, and provide land information.

2.3 Improve capacity of underwriters

2.4 Assist with identifying US joint venture partners.

2.5 Provide legal & regulatory assistance.

2.7 Identify investors.

Policy Reform II: Increase private sector participation in the delivery of municipal services and land development.

Policy Objective:	HG Conditions Precedent:	Technical Assistance & Training Support:
3. Improve the ability of private land developers and local governments to form partnerships.	3.1 Local government & land developers must form partnerships to be eligible to participate in infrastructure finance programs.	3.1 Improve local government's ability to facilitate privatization (negotiate, prepare contracts, contract administration).
	3.2 Substantial progress towards creating local gov'nt urban land and management information systems.	3.2 Improve local government's capacity to evaluate physical, economic and environmental impacts of land development.
		3.3 Improve the capacity of private developers to carry-out physical, economic and environmental analysis.
		3.4 Assist with identifying US joint venture opportunities.

Policy Objective:	HG Conditions Precedent:	Technical Assistance & Training Support:
4. Improve the capacity	4.1 Willingness to	4.1 Improve capacity to

of local governments to enter into agreements with private providers of basic urban services.

implement trial programs for privatizing municipal services, and participate in technical assistance & training programs.

4.2 Substantial progress towards development of state level performance standards for privatization.

solicit, negotiate, contract and manage private sector providers.

4.2 Improve capacity of private providers to deliver municipal services.

4.3 Assist with identifying US joint venture opportunities.

Policy Reform III: Improve the capacity of local governments to plan, operate, maintain and recover the costs for basic urban services.

Policy Objective	HG Conditions Precedent	Technical Assistance & Training Support
5. Improve the capacity of local governments to plan for basic urban services.	5.1 Willingness to implement trial programs and participate in technical assistance & training.	5.1 Improve capacity to carry-out dynamic spacial planning in lieu of master planning.
	5.2 Substantial progress towards delegation of authority from state to local gov'nt for management of urban development.	5.2 Improve capacity for capital improvement planning, and coordination with dynamic spacial planning.
		5.3 Improve ability to coordinate planning between municipal corporations and development authorities.
		5.4 Assist with identifying US joint venture opportunities.
		5.5 Provide legal & regulatory assistance.

Policy Objective:	HG Conditions Precedent:	Technical Assistance & Training Support:
6. Improve capacity of local governments to operate, maintain and recover costs for basic urban services.	6.1 Willingness to implement trial programs and participate in technical assistance & training.	6.1 Improve capacity of municipal corporations and development authorities to coordinate operations, maintenance and cost recovery.
	6.2 Substantial progress towards delegation of authority from state to local gov'nt to recover costs for basic urban services.	6.2 Improve institutional capacity through organizational development and training.
		6.3 Provide legal & regulatory assistance.
		6.4 Improve operating, maintenance and cost recovery technologies such as computerization, leak detection, etc.