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Annual Evaluation of the Financial Institutions Reform and Expansion Project (Debt Component)

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Finally, it is my hope that this evaluation, however minor its effect may be, will contribute to solidifying and sustaining the important, seminal work of USAID/India in the financing of urban infrastructure through the domestic capital market.

I, of course, take full responsibility for any errors of interpretation or fact in this report.

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Evaluation Methodology

This evaluation was undertaken by a development economist with regional experience in the development and financing of environmental infrastructure projects on a joint sector basis. Prior to arrival in India, the consultant reviewed relevant documents made available in Washington, D.C. by the FIRE (D) project's Management Support Services (MSS) contractor, Community Consultants International and its subcontractor, Technical Support Services. These included, *inter alia*, the Project Paper and the Implementation Plan for Technical Assistance and Training. In addition, the consultant reviewed AID's Evaluation Handbook in order to incorporate appropriate portions into the methodology ultimately applied in India.

The evaluator spent more than two weeks in India benefiting from discussions with the USAID Mission, RHUDO/New Delhi, NIUA, ILFS, HUDCO, appropriate state and local government officials, the MSS Team, as well as other relevant entities involved in the development and financing of municipal infrastructure. The consultant conducted his analyses in India, preparing a draft evaluation report for presentation to USAID/India prior to departure.

Based on various project issues reflected in the scope of work produced by USAID/India, the consultant prepared a framework for interviews to serve as guidance for the nearly 20 meetings held during the course of the evaluation. In New Delhi, the consultant met with senior management of NIUA and HUDCO. In Bombay and New Delhi, the evaluator met with senior representatives of ILFS, the country's only dedicated private sector infrastructure finance entity. In Tiruppur, the consultant interviewed members of the Tiruppur Exporters Association (TEA), the industry group which provided the impetus for the Tiruppur Area Development Programme (TADP), the most promising project to date to be able to demonstrate the provision of water supply, sewerage, sewage treatment and disposal, on-site sanitation, industrial wastewater treatment and disposal on a public/private partnership basis. Meetings were also held with Tiruppur municipal officials to discuss the evolution of this precedent setting project and the change in the policy environment that has been required to tender for this project on a build, operate, transfer basis. In Madras, the evaluator met with representatives of the Tamil Nadu Corporation for Industrial Infrastructure Development, Ltd. (TACID), the state government entity responsible for the development of infrastructure for industrial areas within the state which is a partner with ILFS in the New Tituppur Area Development Corporation, Ltd., the project company formed to implement TADP on a commercial basis. TACID officials were queried regarding the process of policy change that has taken place at the state and local level which have allowed the TADP to reach its current state and their perceptions regarding how technical assistance and training available under the FIRE (D) project can be put to use in other states to achieve an enabling environment for public/private partnerships.

Executive Summary

Annual Evaluation
of the
Financial Institutions Reform and Expansion Project
(Debt Component)

1. Introduction

Against the backdrop of a Rs. 300,000 *crore* bond market and evolving progressive policy reforms, the Financial Institutions Reform and Expansion Project (Debt Component) was ambitiously launched in late 1994 to channel US$125 million of Housing Guaranty (HG) resources to selected demonstration cities and states to assist in the financing of urban environmental infrastructure projects. The operating structure of the project calls for designated financial intermediaries, including Infrastructure Leasing and Financial Services, Ltd. (ILFS) and the Housing and Urban Development Corporation (HUDCO), to make loans to selected municipal corporation, state boards and authorities and private enterprises which have formed partnerships with public entities. HG resources provided under the project must be matched with local resources raised in the country's debt market through innovative financial instruments to be created with project assistance. Infrastructure projects eligible for funding over the 1994-98 period include water supply, sanitation, solid waste management, and integrated area development schemes. The National Institute for Urban Affairs (NIUA) is to act as the advocate for policy change and also coordinate technical assistance and training targeting the development of local government capacity to: 1) identify, develop and manage commercially viable environmental infrastructure projects; 2) rationally price the delivery of services and recover costs; and 3) develop sound financial management systems that will support access to the capital market. The project also provides approximately US$5 million in grant funds for technical assistance, training, management support and annual evaluations. Together these components seek to achieve the following policy objectives:

- provide assistance to a national level infrastructure finance institution to promote infrastructure development policy change, and to promote the development of an infrastructure finance system;

- provide assistance to promote innovative infrastructure finance methods such as build, own, operate (BOO) or build, own, operate, transfer (BOOT) to promote infrastructure development policy change, and to establish an infrastructure finance system;

- improve the ability of private land developers and local governments to form partnerships;

- improve the capacity of local governments to enter into agreements with private

providers of basic urban services;

- improve the capacity of local governments to plan for basis urban services; and finally,

- improve the capacity of local governments to plan, operate, maintain and recover costs for basic urban services.

A number of significant events have taken place since the inception of the project which were envisaged as progress indicators for FIRE (D). The concerted efforts on the part of the various FIRE (D) partners have been, to varying degrees, instrumental in promoting the FIRE (D) agenda which have led to a number of milestones. Although exclusive attribution of the efforts of the FIRE (D) partners to achieving the following key milestones is difficult, some indirect attribution can be made:

- private sector entry into land development, solid waste management, and roads and bridges;

- an increasing incidence in the use of private contractors by municipalities for the operation and maintenance of urban infrastructure services;

- an increasing number of municipalities and urban services agencies are revising tariffs to at least cover the cost of operating water supply systems;

- partnerships between state level infrastructure finance institutions and private sector financial institutions are being established in Maharashtra and Tamil Nadu with other states expected to establish similar partnerships;

- tax incentives for financial institutions investing in BOO/BOOT projects including urban infrastructure projects;

- five year tax holidays for infrastructure projects developed on a BOO/BOOT basis;

- income tax exemption for individuals and institutions investing in infrastructure;

- recommendation by the Ministry of Finance's Committee for the Commercialization of Infrastructure for development of a tax free municipal bond system; and

- recommendations by State Finance Commissions' working groups to enable municipal authorities to borrow from the market for capital investment needs.

Besides these examples, additional events have taken occurred since the inception of the project which have contributed to the advancement of the FIRE (D) agenda together with the FIRE

(D) partners' contributions to the achievement of the various benchmarks specified for the project's three broad policy objectives. These include various state level fiscal reforms, the Seventy-Fourth Constitutional Amendment affecting local governments, the dynamics of the Indian debt market, and the advent of municipal credit ratings.

2. Findings and Conclusions

2.1 Progress by Component

The objective of the FIRE (D) project playing a key role in the development of an "infrastructure finance system" during the five year life-of-project was indeed ambitious. Drawing from lessons learned from India's housing sector where USAID/India has played a key role since the late 1970s, it should have been recognized that after two decades of promoting the twin goals of mobilizing resources for mortgage credit a more market oriented housing finance system, there remains an absence of innovative financial instruments to mobilize domestic savings for housing and, most importantly, a formal mechanism to trade housing-related debt and equity instruments has yet to evolve.

Progress toward promoting development of the commercially viable "infrastructure finance system" component of FIRE (D) has yet to produce the results envisaged in the policy agenda originally established. Nevertheless, reasonable progress has been made toward developing innovative infrastructure financing models to serve as a basis for mobilizing resources in the capital markets.

As the designated GOI implementing agency under the FIRE (D) structure, NIUA is charged with the responsibility for promoting the project's policy change agenda. However, as the institution designated by Ministry of Urban Affairs and Employment (MOUAE) to conduct research and provide training on urban policy issues, it possesses 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. However, NIUA was not created to promote the key financial sector policy reforms such as those required for the broadening and deepening of the debt market which would allow for the development of an infrastructure finance system. Nonetheless, as the policy research arm of MOUAE, it has the capability to lobby the RBI and Ministry of Finance for the requisite debt market restructuring reforms through the MOUAE. To date, NIUA's links to the MOUAE remain weak which work against its role as a policy change advocate.

The development and operationalization of a full-fledged, self-sustaining infrastructure finance system *per se* will be difficult to accomplished in the project's remaining time period. Nevertheless, many of the elements of a operative system will be tested and will be under way, including functional debt instruments, municipal bond ratings, a number of commercially viable

resources for timely implementation of these needed projects. As a consequence, TACID engaged ILFS to conceptualize and structure these projects in a format that would be conducive to commercial financing. ILFS was also retained to arrange requisite financing for plan implementation.

The Tiruppur Area Development Project (TADP) envisages the implementation of the three infrastructure facilities within the Tiruppur Local Planning Area comprising Tiruppur Municipality and the 16 adjacent villages in an area of 217 km². In addition, water supply will be provided to villages which lie along the pipeline corridor from the water supply source, comprising an area of 780 km.

A public limited company, the Tiruppur Area Development Corporation Limited (NTADCL), has been formed to implement the TADP. NTADCL has been authorized by the GOTN to implement the TADP employing a commercial format. NTADCL's shareholders include ILFS, TACID, representing the GOTN, the Tiruppur Exporters Association (TEA), and the Government of India. To implement the water supply, sewerage and industrial wastewater components of TADP, NTADCL will enter into a concession agreement with GOTN. The concession will make NTADCL the owner of the systems developed as part of TADP and would allow NTADCL to contract an operator with responsibility for project implementation on a build-own-operate-transfer (BOOT) basis and would offer the operator equity participation in the project. In return, NTADCL would be given the right to the revenue streams emanating from the TADP in order to recoup its investment and earn a reasonable return.

An experienced operator will be selected to build, operate and maintain the system over the concession period through a competitive bidding process. NTADCL would then enter into a fixed price construction agreement and an operation and maintenance agreement with the operator. Concurrently, NTACDC will enter into a bulk water takeoff agreement with the Tirappur Municipality and the industrial users within the TADP area.

NTADCL is envisaged as the apex agency through which the operator will implement TADP, operate and maintain the system and interface between GOTN and other levels of government, household consumers (with assistance from the Tiruppur Municipality), industrial consumers (with assistance from TEA), and project lenders. ILFS is responsible for mobilizing resources from lenders, investors, and the BOOT operator while the latter will have responsibility for the design, construction, operation and maintenance of the system. The U.S. Agency for International Development has agreed to provide a Housing Guaranty loan in the amount of US$25 million. ILFS will act as the financial intermediary, borrowing dollar denominated resources from a qualified U.S. investor which will be swapped for Indian Rupees. The proceeds of the Housing Guaranty loan will be retained in an escrow account and will be onlent to NTADCL according to the project construction schedule upon meeting certain conditions precedent for loan disbursement.

In March of this year, the Ahmedabad Municipal Corporation (AMC) became the first Asian municipality to receive a credit rating for a proposed Rs. 100 *crore* bond issue. The debt is to be used to finance a Rs. 500 *crore* civic plan spread over five years for water supply, sewerage, bridges, overpasses and an ambitious slum development project. The remaining costs will be met by internal accruals and assistance from multilateral agencies such as the World Bank.

This city of 2.8 million located in the State of Gujarat, was also the first in India to recruit management graduates and chartered accountants. The AMC's municipal commissioner was one of the first to realize that with government cutting back on spending, municipalities would have to fend for themselves and he has set out to professionalize the city's administration to enable it to become more self-sufficient and responsible. These changes have begun to pay off as the AMC is one of the few Indian municipalities to have a surplus on its revenue account.

The AMC has reviewed the merits of the two typical types of municipal bonds available for debt financing — general obligation (GO) bonds and revenue obligation (RO) bonds. GO bonds would use all the taxes and assets of the AMC to service the debt, while RO bonds would rely on specific sources of revenue from facilities and services which are financed out of the bond proceeds. In this case, project earnings and assets would be pledged to shareholders. The AMC appears to favor initial use of GO bonds since charging for public services is still to become successful in India and RO bounds would depend on the revenue stream from such charges. The AMC initial choice is logical as only about 20 percent of its Rs. 404 *crore* revenues during 1995/96 came from user charges for services offered; the remainder was derived from property tax and *octroi* collections. Recent internal controls put in place by the AMC have boosted collection of both of these taxes.

In response to the growing need for alternative sources of financing for industrial and infrastructure development, a large number of securitized and structured debt obligations (SDO) have emerged in the Indian debt market during the past three years. During this period several private institutions, state authorities and special purpose vehicles have issued nearly of Rs. 845 *crore* of such obligations for infrastructure projects alone. SDOs issues by existing state financing agencies seem to predominate, however, for a number of reasons related to risk aversion and tax advantages to investors.

This emerging market in SDOs offers HUDCO two unique opportunities to develop SDOs for: a) HUDCO's borrowers and; b) for HUDCO's own funding. Depending on the nature of the projects HUDCO chooses to include in an SDO portfolio, it should consider accessing Housing Guaranty resources to the extent that such funding is advantageous to the corporation.

In the case of SDOs for HUDCO's borrowers, these would enable the corporation's borrowers to fund new infrastructure projects or refinance existing projects. In the case of new projects, the proceeds from the SDO could be used to reduce the amount the project sponsor would have to borrow from HUDCO and therefore enable the corporation to leverage its own resources by enabling its borrowers to raise a portion of their financing requirements in the capital market. In the

case of SDOs for existing projects, the obligation's proceeds could be used to pre-pay of the project borrower's debt to HUDCO.

The second opportunity available to HUDCO is to apply the SDO principal to securitize a diversified portfolio of the corporation's own existing infrastructure loans. Of the two options, this offerers the corporation the most numerous and immediate benefits. First and foremost, securitizing a portfolio of its existing loans would have the effect of diversifying the corporation's funding base especially if the securitized funding is structured in such a way so that investments in SDOs would not be aggregated by current holders of the corporation's debt within their general exposure to HUDCO. Secondly, for those investors previously uninterested in holding HUDCO debt, newly issued SDOs would present a more favorable risk-return profile relative to HUDCO's conventional debt instruments. Finally, SDOs could be designed as "off balance sheet" transactions vis-à-vis financial accounting and capital adequacy which, in turn, would result in an improvement in the corporation's leverage ratios.

A great deal of effort will need to be expended to capitalized on the two SDO opportunities available to HUDCO as briefly described above. Numerous legal, regulatory, tax and accounting issues will need to be studied prior to approaching merchant bankers and rating agencies. Although HUDCO staff has already prepared preliminary information on 25 project loans in its existing portfolio based on selection criteria developed jointly by FIRE (D) consultants and HUDCO staff, the corporation will need a considerable amount of technical assistance to further assess the viability of specific projects for inclusion in an SDO portfolio, the attractiveness of the various SDO alternatives, and in the preparation of solicitations for proposals from merchant bankers which can be judged on an objective basis.

2.3 Performance of the Institutions Party to the FIRE (D) Project

Although USAID/India exercised patience while it pressed for NIUA to comply with the terms and conditions of its role as the FIRE (D) project's implementing agency, it must now press NIUA to act as the project leader and expedite the outputs under the NIUA work plan. In this regard, USAID/India bears responsibility for: a) a work plan which, although well funded, lacked rigor; and b) insufficient pressure to accomplish those activities that were spelled out in the NIUA work plan.

On the basis of limited field research, it appears that institutionally, NIUA needs to assign the requisite full-time resources to serve in a leadership role to initiate a process of joint-sector development and financing of urban environmental infrastructure projects. Key assumptions postulated in the Project Paper regarding NIUA's overall ability to effectively advocate for policy change and to coordinate the training for capacity building with demonstration state and local governments have not yet proven valid.

The role of the National Institute of Urban Affairs as envisaged by both the Cooperative Agreement signed between USAID/India and NIUA and the FIRE (D) project was to promote,

Based on its success with the Rao-Pithampur project, ILFS was contracted by the Tamil Nadu Corporation for Industrial Infrastructure Development Limited to design and implement the Tiruppur Area Development Project on a BOOT basis. A multi disciplinary team comprises of in-house project and technical experts, financial analysts, economists and legal experts have been assigned to the project. Bids from a short list of international firms to operate the infrastructure facilities are expected to be received in the near term and ILFS will handle the project's bond syndication and will utilize US$25 million of AID's Housing Guaranty resources for construction financing.

ILFS recently established an infrastructure finance division which has identified a relatively large number of environmental infrastructure projects. However, it is proceeding with the planning of only a few, apparently for two reasons: first, although it is the only player in town, ILFS has limited resources; and second, and probably more importantly, the firm must balance its allocation of these limited resources between pursuit of commercially viable environmental infrastructure projects and those in power and transportation sectors which bring a yield a larger and more immediate return.

Based on limited experience with ILFS' young and talented staff assigned to the Tiruppur project, there is an obvious need to improve the capacity to relate to municipal officials. As far back as 1993, USAID/India recognized that ILFS needed to devise a strategy to market the concept of debt financing of infrastructure among municipal officials. This holds true today. The firm's young staff are largely new to financial engineering and the requirements of long-term debt instruments, especially for environmental infrastructure and thus need to be trained and exposed to experiences elsewhere to serve as effective "ambassadors" of BOOT projects utilizing bond financing.

HUDCO established an infrastructure wing in 1989 to increase its lending for urban environmental infrastructure projects. Funds for these infrastructure projects are sourced from borrowings from public institutions and equity contributions from the GOI. In the past these institutions were required by law to invest their Statutory Liquidity Reserve requirements in entities such as HUDCO which are engaged in activities deemed by the GOI to be socially desirable. This requirement ensured HUDCO a steady supply of below market rate funds. However, as part of the GOI's liberalization of its controls on the economy, the Statutory Liquidity Reserve requirement will continue to decline thus making it more difficult for HUDCO to raise money and ensuring that the funds it does raise are more costly due to competition for capital.

HUDCO can offset this emerging problem in two ways: 1) by rigorous application of commercial principles of cost recovery and loan repayments; and 2) by taking advantage of the opportunities afforded it by the emergence of structured and securitized debt obligations in the debt market. However, due its dependence on subsidized-cum-directed credit, the corporation has no experience with urban infrastructure projects developed in a commercial context. Rather than continuing to focus on whether its state and local government borrowers will repay their infrastructure loans, HUDCO needs to begin to structure its infrastructure projects in a way which

sector basis targeting, *inter alia*, the creation of innovative financial instruments, an accelerated pace of advocacy for the policy change agenda, and capacity building at the municipal, and to a lesser extent, the state level.

Recommendation 1: Target the use of Housing Guaranty resources on broadening the array of debt instruments for the financing of infrastructure thereby broadening the investor base particularly among foreign and retail investors.

Recommendation 2: Initiate a formalized working relationship between the regulatory/operating environments and the dept components of the FIRE project.

Recommendation 3: Develop a rigorous and comprehensive work plan for the National Institute of Urban Affairs with well monitored milestones and benchmarks to improve NIUA's institutional capacity to promote FIRE (D) principles at the central, state, and local government levels.

Recommendation 4: Conduct institutional assessments of a variety of the training providers available in India such as the MOUAE's regional urban and environmental studies training centers, the Institute for Local Self Government, the state level urban studies centers, schools of urban planning, the Institutes of Management, and HUDCO's Human Settlements Management Institute to identify four to five institutions where capacity building for state and local government personnel can be initiated in the near term.

Recommendation 5: Enter into memoranda of understanding with four to five regional training institutions and begin the process of selecting training modalities, curriculum design, and participant selection criteria which will substantively contribute to capacity building for selected state and local government officials.

Recommendation 6: Given that so many potential recipients of technical assistance and training exist at the state and local government levels, priority should be given to those whose improved skills will most benefit the joint sector development of environmental infrastructure in the very near term.

Recommendation 7: Provide support to non-governmental organizations active in the urban sector to assist in the development of innovative approaches to urban service provision in line with FIRE (D) principles through mobilizing community groups.

1. Introduction

1.1 Project Background

Since the macroeconomic crisis five years ago, the Indian economy has undergone significant changes that have fundamentally altered India's development strategy. Nearly all areas of the economy have been opened to domestic and foreign private investment. Prudential regulations that meet intentional standards have been introduced in the country's financial sector; banks now have substantially more discretion in their lending decisions; financial markets have been liberalized; and barriers against the entry of private sector banks have been eliminated. Notwithstanding the country's improving economic performance, there is a large unfinished agenda. One particular aspect of this unfinished agenda is of particular importance to the goal and objectives of the USAID/India-funded debt component of the Financial Institutions Reform and Expansion Project (FIRE (D)).

In an economy which was driven for four decades by increases in public investment, maintaining India's recent dynamic growth requires a dramatic increase in private investment in infrastructure. This comes at a time when many recent events have generated considerable concern regarding the deplorable state of infrastructure services in most Indian cities and the possible negative impact on urban productivity. Unless there is improvement in infrastructure, both "economic" (i.e., power, roads, irrigation and telecommunications) and "social services" or "environmental infrastructure" (i.e., water, sewerage and solid waste management), India will not be able to achieve its medium- and long-term objectives of higher and sustained rates of growth and poverty reduction.

The existence of one of the largest bond markets in the world together with recent changes in the policy framework appear to provide ample scope for this needed private sector involvement[1], and private investors continue to express interest in participating in this sector. However, the process of translating such interest into actual capital formation will require the Indian authorities to address two key and related issues: redefining the role of government; and providing an appropriate legal, regulatory and administrative framework for private investment which must now assume the dynamic role played by public investment for over four decades. The resolution of many aspects of these issues will depend largely on actions taken by state governments[2].

[1] Surprisingly, the tax benefits announced in the 1995/96 annual budget for attracting private investment failed explicitly to include urban infrastructure. However, these benefits are likely to be extended to urban infrastructure during the upcoming year.

[2] India has a complex system of intergovernmental transfers. It reflects the constitutional assignment of responsibilities and revenues between the national and sub-national governments. It also reflects the need to cater to vast differences among states in features such as population, natural resources, economic and social performance, administrative capacity, and ethnic compositions. The Central Government devolves to the states roughly 40 percent of the tax receipts it mobilizes. In addition, the center provides loans and grants to states equivalent to approximately 25 percent of its total expenditures. In fact, the center delivered over 90 percent of its contribution to plan expenditure under the Eight Plan for the 1992-95 period. Meanwhile, the states only met 28 percent of their contribution.

1.2 Evolution of the Financial Institutions Reform and Expansion Project, Debt Component

The declines in public allocations for urban infrastructure provide an opportunity for improving the ability of local and service delivery authorities to improve the state of infrastructure services by adopting an urban infrastructure credit policy which focusses on accessing to the country's capital market. While there is indeed great potential for involving the capital market in the financing of urban infrastructure, capital formation requires considerable effort, not to mention the need for both central and state governments to facilitate the process through the creation of an enabling policy environment and the effective and efficient leveraging of limited budgetary resources.

It is against the backdrop of a Rs. 300,000 *crore* bond market and evolving progressive policy reforms that FIRE (D) was ambitiously launched in late 1994 to channel US$125 million of Housing Guaranty (HG) resources to selected demonstration cities and states to assist in the financing of urban environmental infrastructure projects. The operating structure of the project calls for designated financial intermediaries, including Infrastructure Leasing and Financial Services, Ltd. (ILFS) and the Housing and Urban Development Corporation (HUDCO), to make loans to selected municipal corporation, state boards and authorities and private enterprises which have formed partnerships with public entities. HG resources provided under the project must be matched with local resources raised in the country's debt market through innovative financial instruments to be created with project assistance. Infrastructure projects eligible for funding over the 1994-98 period include water supply, sanitation, solid waste management, and integrated area development schemes. The National Institute for Urban Affairs (NIUA) is to act as the advocate for policy change and also coordinate technical assistance and training targeting the development of local government capacity to: 1) identify, develop and manage commercially viable environmental infrastructure projects; 2) rationally price the delivery of services and recover costs; and 3) develop sound financial management systems that will support access to the capital market. The project also provides approximately US$5 million in grant funds for technical assistance, training, management support and annual evaluations. Together these components seek to achieve the following policy objectives:

- provide assistance to a national level infrastructure finance institution to promote infrastructure development policy change, and to promote the development of an infrastructure finance system;

- provide assistance to promote innovative infrastructure finance methods such as build, own, operate (BOO) or build, own, operate, transfer (BOOT) to promote infrastructure development policy change, and to establish an infrastructure finance system;

- improve the ability of private land developers and local governments to form partnerships;

- improve the capacity of local governments to enter into agreements with private providers of basic urban services;

- improve the capacity of local governments to plan for basic urban services; and finally,

- improve the capacity of local governments to plan, operate, maintain and recover costs for basic urban services.

As briefly described in the following section, there are a number of sweeping changes taking place in India — state level reforms, for example, which impact the enabling framework for private investment in infrastructure — which are affecting the FIRE (D) project. This evaluation offers the Mission an opportunity to assess the progress-to-date of the FIRE (D) project towards achievement of the aforementioned objectives and to incorporate the results of the evaluation into the MSS Team's second work plan. If warranted, adjustments can be made to maximize the impact of the project's loan and grant resources targeted at expanding the debt market through the financing of commercially viable urban environmental infrastructure projects in light of these changes. The primary objective of this annual evaluation is to appraise progress.

1.3 Recent Events Affecting the Development and Financing of Commercially Viable Urban Environmental Infrastructure on a Joint-Sector Basis

FIRE (D) project activities (together with the looming budgetary shortfall in the availability of public resources for urban infrastructure) have contributed to changing the "mind-set" of state and local government officials from dependence upon intergovernmental transfers to the necessity of developing commercially viable urban projects which can be finance through market mechanisms. Many significant events have taken place since the inception of the project which were envisaged as progress indicators for FIRE (D). The concerted efforts on the part of the various FIRE (D) partners have been, to varying degrees, instrumental in promoting the FIRE (D) agenda which have led to a number of milestones. Although exclusive attribution of the efforts of the FIRE (D) partners to achieving the following key milestones is difficult, some indirect attribution can be made:

- private sector entry into land development, solid waste management, and roads and bridges;

- an increasing incidence in the use of private contractors by municipalities for the operation and maintenance of urban infrastructure services;

- an increasing number of municipalities and urban services agencies are revising tariffs to at least cover the cost of operating water supply systems;

- partnerships between state level infrastructure finance institutions and private sector financial institutions are being established in Maharashtra and Tamil Nadu with other states expected to establish similar partnerships;

- tax incentives for financial institutions investing in BOO/BOOT projects including urban infrastructure projects;

- five year tax holidays for infrastructure projects developed on a BOO/BOOT basis;

- income tax exemption for individuals and institutions investing in infrastructure;

- recommendation by the Ministry of Finance's Committee for the Commercialization of Infrastructure for development of a tax free municipal bond system; and,

- recommendations by State Finance Commissions' working groups to enable municipal authorities to borrow from the market for capital investment needs.

Besides these examples, Tables 2.1 through 2.3 in Section 2 below briefly detail additional events which have taken place since the inception of the project which have contributed to the advancement of the FIRE (D) agenda together with the FIRE (D) partners' contributions to the achievement of the various benchmarks specified for the project's three broad policy objectives. The following section details a number of recent developments which have direct bearing on the outcome of the FIRE (D) project and the realization of the policy objectives.

1.3.1 State Level Fiscal Reforms

Traditionally, many state governments have relied almost exclusively on transfer-based solutions (either through Finance Commission transfers, Planning Commission transfers, or Central Government loans to finance the fiscal deficits of states) to resolve their fiscal problems. Many state governments have taken full advantage of these resource transfers without addressing their fundamental fiscal problems[3]. However, there is growing evidence that the reform mentality is percolating to the states. The following list of initiatives with corresponding states is indicative of the actions recently undertaken with regard to revenue and expenditures. Most of these actions have important implications for the FIRE (D) project. With regard to revenue, measures include: reforming sales tax and simplifying administration to enhance revenue (Kerala, Maharashtra, Rajasthan, Punjab and Uttar Pradesh); privatizing *octroi*[4] tax collections to ensure revenue buoyancy (Maharashtra, Punjab and Rajasthan); reforming property taxation (Andhra Pradesh); establishing

[3] In recent years, over 50 percent of state government deficits have been financed in this manner.

[4] Nine Indian states continue to levy this indirect tax on behalf of their municipalities. The base for *octroi* is the value, weight, or number of items entering a local jurisdiction for consumption, sale, or use in production.

new regulatory and tariff structures to achieve cost recovery for electric power (Orissa); partial cost recovery programs in health and education (Punjab and Tamil Nadu; and enabling legislation to permit tolls on bridges, highways and overpasses designed to attract private sector participation in public infrastructure development (Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu).

On the expenditure side, reforms have been initiated in areas such as the restructuring of public enterprises through either partial or complete privatization, closure and reorganization (Kerala and Uttar Pradesh); state level "renewal funds" to facilitate privatization and closures (Punjab and Rajasthan); strong zero-based budgeting or other mechanisms for expenditure program review (Kerala, Maharashtra and Tamil Nadu); formal policy statements on reform of state electricity boards including provision for private participation in power generation (Maharashtra, Punjab and Rajasthan); a strategy of maintaining capital expenditures on infrastructure at high levels relative to overall expenditures (Maharashtra and Rajasthan); and measures to compress operating costs without neglecting vital expenditures such as maintenance (Kerala, Punjab and Tamil Nadu). Some states and their major cities have also turned to the private sector to provide urban services more cost effectively.

1.3.2 The Seventy-Fourth Constitutional Amendment Affecting Local Governments

The 74th Constitutional Amendment Act (CCA) of 1992 introduced provisions for the empowerment of elected local bodies. The CCA initiated a process of participative and decentralized democratic government at the local level coinciding with the policy shifts in favor of economic liberalization and decentralized government accompanied by greater devolution of resources. The ramifications of CCA vis-à-vis the FIRE (D) project are significant. Functions previously withdrawn from the municipal bodies in the areas of water supply, sewerage and drainage, slum improvement, and urban planning and development and vested in state governments and parastatal bodies are to be restored to the municipal bodies. A new "12th Schedule" for the devolution of functions includes, *inter alia*:

- urban planning including town planning;
- regulation of land-use and construction of bridges;
- water supply for domestic, industrial and commercial purposes;
- public health, sanitation conservancy and solid waste management;
- urban forestry, protection of the environment and promotion of ecological aspects; and,
- slum improvement and upgradation.

Given the fact that many of India's municipal bodies have limited capacity to deal with the dynamics of urbanization and urban growth, training and human resource development programs will have a crucial role to play in imparting a professional work culture and ethos to these organizations. Cognizant that the training implications for the strengthening of municipal governments' institutional capacity will require a massive effort in planning, designing, provision and sustaining of training programs, the FIRE (D) project is well positioned, through its demonstrational mandate, to assist in the development of new training curricula focusing on such areas as municipal administration, municipal services management, municipal finance, and urban economic, environmental and land planning.

It should be noted, however, that enhancing the institutional capacity of local governments will require two complementary sets of interventions. An ***immediate*** training and human resource development intervention is required to strengthen management capabilities through imparting requisite knowledge, the development of new skills by municipal personnel and efforts to change the attitudes and motivation of those responsible for urban service delivery at different levels of the municipal hierarchy. The FIRE (D) can contribute to this key intervention through its capacity development mandate. The second intervention will require state governments to create the enabling environment (through legal, administrative, personnel, fiscal and other related reforms) to enable the first intervention to flourish. In this case, the FIRE (D) policy analysis and promotion mandate can play an instrumental role in promoting the requisite enabling environment.

1.3.3 The Current State of the Indian Debt Market

The development literature is replete with examples that efficient capital markets are imperative for advancing the economic reform agenda. In the present system in India, with a litany of antiquated regulations still in place, the debt market participants have limited ability to respond to market price signals thereby thwarting efficient resource allocation. The clearest indicator of this phenomenon is the virtual absence of activity in the secondary debt market. The costs of illiquidity are largely borne by the central government as it is the largest debt issuer, but all borrowers are affected by the cost of debt that results.

The Rs. 300,000 *crore* Indian debt market is only exceeded in size by the Japanese and Korean bond markets. Central government debt accounts for more than 50 percent of the market with the balance comprised of public and private sector debt. The size of the central government debt is determined by fiscal policy while its composition is determined by the Reserve Bank of India's (RBI) debt management policy. Given the borrowing requirements of the Government of India (GOI), the RBI's role has been to optimize the maturity structure and minimize the cost of servicing this debt.

The RBI's objective of minimizing borrowing costs for the GOI and moving to market-determined rates are inherently contradictory. If cutoff rates in preannounced coupon government

auctions are set lower than market clearing levels, a large number of GOI securities devolve to the RBI and the opportunity for market determined borrowings is lost. However, utilizing market determined rates to encourage greater market participation would entail the offer of a higher cutoff rate and no devolvement of debt to the RBI, thus increasing the interest cost of debt to the central government.

Agreements signed between the RBI and the central government have limiting *ad hoc* treasury bills to Rs. 6,000 *crore* and placed a ceiling of Rs. 9,000 *crore* on *ad hoc* treasury bills for 10 consecutive days. The RBI, therefore, automatically issues term securities to fund the government thereby reducing the level of *ad hoc* treasury bills to the prescribed limits. No such agreement has been signed this year and the net credit of the RBI has been at an unprecedently high level. With government borrowing this year targeted at Rs. 41,000 *crore*, the RBI will raise a large portion of this through the debt market. The government and the commercial sector are vying for limited available financial resources which pushes up interest rates. The central government is paying the high rates while other borrowers are abstaining from the market.

1.3.3.1 The Effect of the 1992 Securities Transactions Scandal

During April 1992 newspaper accounts surfaced detailing wide-scale securities trading irregularities in the country's money markets involving a number of the country's prominent financial institutions. The securities transaction irregularities which took place were linked to the GOI's directed credit system and were the direct result of the need for banks to meet the central government's Statutory Liquidity Requirement (SLR). Under the statute, the Reserve Bank of India (RBI) sets the proportion of bank assets which must be invested in approved government securities which included bonds and debentures of the institutions involved. Banks were required to provide RBI with a biweekly statement demonstrating compliance with the SLR. At the time the scandal broke, the minimum SLR was 63.5 percent. To meet the reporting requirement, banks which held securities whose value exceeded the minimum SLR would trade this excess with banks which had a SLR deficiency. Over time as the SLR minimum and the number of government approved securities increased, the volume of trading grew substantially; in April 1992 the volume was estimated at approximately US$25 billion.

The RBI subsequently created a special committee to examine the irregularities which revealed that a number of banks, bank subsidiaries and financial institutions had made payments for the purchase of investment securities for which they did not receive either the securities or other forms or receipts. The role of the financial institutions involved was that of an intermediary in these security transactions in which they identified a bank with excess liquidity and another whose assets were below the minimum SLR. The intermediary institution then negotiated a price to buy for the excess liquidity bank and resell to the bank with deficient liquidity. The latter paid a higher price for the securities than the intermediary had paid the excess liquidity bank; the differential was intermediary's fee for making the transaction. Many of the purchases made by the institutions involved were contracted to be delivered to banks with deficient liquidity at a specified future date.

As India's stock market began to skyrocket in 1991, brokers began to tap this securities trading time gap for new sources of money and the number of security transactions accelerated. When the scandal surfaced in April 1992 the process unraveled and those involved scrambled to cover their positions.

The consequences of the scam continue to exact a toll on the debt market. A recent Price Waterhouse study of the debt market[5] delineates the most notable consequences of the scam as:

- the fingering of the RBI as the guilty party by the public, press and parliament has made the RBI extremely cautious in undertaking substantive reform in trading debt instruments;
- repos[6], with the exception of those between commercial banks and the RBI, were banned and only six GOI securities are eligible for repo;
- nationalized banks became excessively cautious and took decision-making authority away from dealers — this reduced secondary market trading considerably;
- since the scam, the RBI does not allow a broker to net his position in a particular security the same day — this restrictive rule, combined with the lack of alternate sources of financing, precludes dealers from being able to offer two-way quotes that provide liquidity to the market;
- to sever the broker-bank nexus thought to be the basis of the scam, the RBI imposed a five percent limit on transactions between a bank and a broker — large transactions that exceed this limit are thus conducted directly with the counter party thereby reducing transparency; and
- effective communication between the regulators, the investors, and the brokerage community broke down.

Despite restrictions imposed as a result of the scam, the RBI has taken two initiatives to activate the market for government securities with the initiation of a delivery versus payment (DVP) clearing system and the granting of primary dealer (PD) licenses to six financial institutions with the intention of having the primary dealer act as a transient holder of securities who will buy and sell to investors. However, the impact of these two initiatives on debt market deepening are questionable. With the current DVP system limited to GOI securities, this restriction impedes the flow of money across instruments and across markets (debt, equity, money) because of the mismatch between cash flows in the different markets. With regard to the newly licensed PDs, the lack of both operational flexibility and financing for dealers are constraints which will force PDs to act as long-term investors rather than traders of debt.

[5] A Review of the Operational Impediments of the Debt Market in India, report presented to the National Stock Exchange of India Limited by Price Waterhouse under the Financial Institutions Reform and Expansion Project, Regulatory/Operating Environment Component, January 1996.

[6] Repurchase Agreement. The "repo" is the main dealer inventory financing vehicle available throughout the world accounting for more than 96 percent of the world's debt transactions. Before the scam, approximately 90 percent of the transactions in the Indian market were made through the repo.

1.3.3.2 The Secondary Debt Market

A secondary market affords investors the opportunity to exit easily and not have to wait until the maturity of the debt instrument. While trading in debt instruments in the Indian secondary debt market has yet to happen in any significant manner, a beginning appears to have been initiated. The average daily traded volume of Rs. 200 *crores* amounts to only one-tenth of one percent (0.1) of the total outstanding debt in the market. When this is compared to an average of four percent in more mature markets, the minimal trading volume is a clear indication of the deficiencies of the Indian secondary debt market. The most notable problems are the severe curtailments imposed on the brokerage community as described above and the virtual elimination of repurchase agreements. In all other major markets, brokers are the primary agents of liquidity and repos are a key tool brokers use to fund their positions.

1.3.4 The Advent of Municipal Credit Ratings

Credit rating is important in encouraging efficient asset allocation in the debt market because without credit differentiation, poorly managed organizations are rewarded with the same borrowing costs as well managed organizations. India has three credit rating agencies: Credit Rating Information Services of India, Ltd. (CRISIL), Credit Analysis and Research, Ltd., and Investment Information and Credit Rating Agency of India, Ltd. Collectively, these agencies rate more than 2,000 debt instruments from over 1,000 issuers. Investor utilization of credit ratings in making investment decisions has gradually increased in recent years, but investors are still more heavily influenced by name recognition than by rating and to only distinguish between investment grade versus non-investment grade instruments.

During 1995, the MSS Team contracted CRISIL to develop a framework and methodology for credit assessments of municipal and other functional authorities for issuing municipal bonds. CRISIL recently assigned an A+ rating to the Ahmedabad Municipal Corporation (AMC) for a proposed 100 *crore* bond issue to fund the AMC's capital expenditure program, the highest ever for any public works issue. The debt is to finance a Rs. 500 *crore* civic improvement plan spread over five years for facilities such as water supply, sewerage, bridges, overpasses and an ambitious slum re-development project. According to the CRISIL system, an A+ rating indicates "adequate safety for repayment of principal and interest."

The rating assigned by CRISIL to the AMC, in effect a municipal bond rating, is probably the first of its kind in Asia. CRISIL will review its rating every six months and will peg it to any additional debt taken on by the AMC. During the past year, CRISIL has rated a number of infrastructure related bond issues such as those from the Sardar Sarovar Nigam, and Karnataka's Krishna Jal Bhagya Nigam. But unlike the AMC, these issues were backed by state government guarantees. The AMC's rating was assigned on the corporation's own inherent strengths. The Ahmedabad rating has enthused other municipalities to seek ratings to enable them to access the

capital markets for their urban infrastructure capital investment needs.

2. Findings and Conclusions

2.1 Major Accomplishments of the Housing Guaranty Loan Component of the Project During the First Work Plan Period

The broad, long-term goal of USAID/India's FIRE (D) project can be stated as an attempt to create an environment in which Indian municipal governments and authorities (including state-level authorities) have access to the resources needed to finance well-conceived commercially viable infrastructure projects whose sound operation and management is ensured by the continued human resource development of the sponsoring governments as well as through their access to competent technical assistance and training. In the process, the FIRE (D) project seeks to expand the debt market through the financing of commercially viable urban environmental infrastructure projects, defined as those which result in the provision of affordable urban services on a cost recovery basis by their sponsoring municipal corporation or state or local authority. A number of discrete inputs funded by the FIRE (D) project were envisaged to be coordinated with various actions on the part of the National Institute of Urban Affairs (NIUA) to achieve a policy agenda organized around the three strategic objectives delineated below. As specified in the FIRE project's logical framework, the expected outputs from such inputs include increased capacity for the debt market to serve as a major source of finance for urban infrastructure and improved capacity of local government to plan, finance and recover the costs of basic urban infrastructure projects. The following sections serve to review in detail the progress of project implementation during first work plan period (November 1994 through April 1996) relative to each of the Program's strategic objectives.

2.2 Progress Toward Achieving Policy Objective I: Promote the Development of a Commercially Viable Infrastructure Finance System

The objective of the FIRE (D) project playing a key role in the development of an "infrastructure finance system" during the five year life-of-project was indeed ambitious. Drawing from lessons learned from India's housing sector where USAID/India has played a key role since the late 1970s, it should have been recognized that after two decades of promoting the twin goals of mobilizing resources for mortgage credit and of a more market oriented housing finance system, there remains an absence of innovative financial instruments to mobilize domestic savings for housing and, most importantly, a formal mechanism to trade housing-related debt and equity instruments in India has yet to evolve. It is interesting to note that although the process of mobilizing resources in the capital market for both housing and infrastructure follow very similar paths, securitization of mortgages is a relatively simpler matter with a plethora of worldwide experiences to draw from (in contrast to the infrastructure sector with few examples in the developing country context). And yet in 1996, there is still an absence of a mechanism for trading

mortgage instruments.

As the designated GOI implementing agency under the FIRE (D) structure, NIUA is charged with the responsibility for promoting the project's policy change agenda. However, as the institution designated by Ministry of Urban Affairs and Employment (MOUAE) to conduct research and provide training on urban policy issues, it possesses 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 was not created to promote the key financial sector policy reforms such as those required for the broadening and deepening of the debt market which would allow for the development of an infrastructure finance system. Nevertheless, as the policy research arm of MOUAE, it has the capability to lobby the RBI and Ministry of Finance for the requisite debt market restructuring reforms through the MOUAE. The barometer of MOUAE support for the FIRE (D) project will be its efforts at seeking the appropriate financial sector reform necessary for the development of an infrastructure finance system. To date, NIUA's links to the MOUAE remain weak which work against its role as a policy change advocate[7].

The development and operationalization of a full-fledged, self-sustaining infrastructure finance system *per se* will be difficult to accomplished in the project's remaining time period. Nevertheless, many of the elements of a operative system will be tested and will be under way, including functional debt instruments, municipal bond ratings, a number of commercially viable project identified incorporating cost recovery in their design, and even one or more projects financed through bond issues. It should be noted at this point that additional time — ***at least two years*** — added to the life-of-project could contribute significantly to the broadening and deepening of the debt market. For example, should NIUA become more proactive in its debt market advocacy efforts through the MOUAE, and should the project to be able to design a variety of innovative debt instruments a time extension and closer collaboration with the regulatory/operating environment improvement components of the FIRE project, especially with regard to the strengthening of the National Stock Exchange, then a time extension would be warranted.

Table 2.1 below delineates the benchmark indicators for Policy Objective I together with a brief summary of the results obtained to date. Progress toward promoting development of the commercially viable "infrastructure finance system" component of the FIRE (D) project has yet to produce the results envisaged in the policy agenda originally established.

As will be discussed in the following section, reasonable progress has, on the other hand, been made toward developing innovative infrastructure financing models to serve as a basis for mobilizing resources in the capital markets.

[7] This was first identified as an area of concern during a 1995 institutional needs assessment conducted by TATA Consulting Services and funded by RHUDO/New Delhi.

Table 2.1

Progress To Date Toward Achieving Benchmarks for Policy Objective I

Policy Agenda	Benchmarks	Status
1. Promote the development of a commercially viable infrastructure finance system.	1.1 Policy advocacy.	1.1 Overall Achievements: · an Infrastructure Development Finance Corporation at the national level as per the recommendations of the Rakesh Mohan Committee for the Commercialization of Infrastructure to finance, refinance, provide credit enhancement and develop a municipal bond market; areas of operation are limited to power, roads and ports but is likely to be extended to include urban infrastructure · tax incentives (40% exemption) for financial institutions investing in BOO/BOOT type projects including urban infrastructure projects · tax holidays for 5 years for infrastructure projects (including urban) developed on a BOO/BOOT basis · income tax exemption (20%) for individuals and institutions investing in infrastructure as per the recommendations of the Rakesh Mohan Committee · Foreign Institutional Investors (FIIs) allowed to invest in unlisted companies · limit of investment by FIIs in a single company increases from 5 to 10% · infrastructure companies are allow to create long-term (15-20 year) debt instruments · income of any mutual fund dedicated to infrastructure free from income tax · § 88 limit raised from Rs. 60,000 to Rs. 70,000 for investment in any infrastructure fund · recommendations by the Rakesh Mohan Committee for the development of a municipal bond system and income tax exemption for municipal bonds · recommendations by working groups of State Finance Commissions to enable municipal authorities to borrow from the market for capital investment needs · GOI guidelines for Mega City Project recommends that local authorities access capital markets to finance urban projects. · increasing interest on the part of more

		financial intermediaries (FIs) with commercial orientation (ICICI, SCSCI, IDBI, IFCI) to participate in the urban sector. · possibility of setting up FIs at the state level in Maharashtra Tamil Nadu and on a commercial basis with government equity state limited to 49% · line of credit from the World Bank to ILFS for infrastructure projects. · AIG/ILFS Sectoral Equity Fund for Infrastructure and Equity Capital established which can be utilized for urban projects developed with private participation
		1.1 FIRE (D) Contributions: · advocacy through a variety of fora such as State Finance Commissions set up under the 74th Constitutional Amendment in each state, the Rakesh Mohan Committee for the Commercialization of Infrastructure, especially for inclusion of a municipal bond system in its recommendations, and national seminars and workshops such as those on Infrastructure Finance and on Municipal Bonds · advocacy through NIUA's participation in working groups for the Ninth Five Year Plan. · advocacy through articles in the national and local press. · ongoing dialogue with other FIs to promote interest in their involvement in the urban sector. · ongoing dialogue with global infrastructure funds.
	1.2 Development of debt instruments for urban environmental infrastructure.	1.2 Overall Accomplishments: · recommendations by the MOF's Committee for the Commercialization of Infrastructure for development of a municipal bond system. · first ever credit rating for a potential municipal bond issue for Ahmedabad. · increasing interest on the part of local authorities for credit rating; additional resources committed to the infrastructure sector by credit rating agencies. · first ever revenue bond backed by toll revenue has been rated. · ongoing refinement of bond instruments for the Tiruppur Area Development Project. 1.2 FIRE (D) Contributions: · first ever workshop on comparative country experiences with municipal bonds widely

		attended. · assistance provided to HUDCO to explore the modalities of structured debt obligations backed by HUDCO's infrastructure assets. · interaction with investment bankers and other potential investors to generate interest in and gauge their preferences for urban infrastructure debt instruments. · assistance provided to CRISIL for the
		development and refinement of a credit rating methodology for municipal bonds. · ongoing assessment of the requisite legal and procedural reforms to streamline the issuance of municipal bonds within an appropriate regulatory framework. · ongoing discussions with various municipalities for the initiation of pre-feasibility project assessments for consideration under FIRE (D).
	1.3 Development of build, own, operate, transfer type arrangements to attract private sector participation in the financing of urban environmental infrastructure.	1.3 Overall Accomplishments: · development of the first ever project for urban environmental infrastructure on a BOOT basis in Tiruppur. · increasing interest on the part of other local authorities and implementing agencies to develop environmental infrastructure projects on BOOT basis. · increasing interest on the part of other local authorities of exploring joint sector development of water projects and commercial land. FIRE (D) Contributions: · assistance provided to ILFS in the development of contractual frameworks and technical review of contract documents for the Tiruppur Area Development Project. · assistance provided to the Tiruppur Area Development Project for accessing Housing Guaranty resources which have been instrumental in enhancing the project's financial viability. · ongoing study to assess the capabilities, incentives, concessions, training and technical assistance requirements of potential BOOT developers in India. · seminar planned for 10/96 to discuss BOO/BOOT and variant options for joint sector

		delivery of urban services. · newly developed dialogue with private firms in the water sector regarding public/private partnerships in India.
	1.4 Creation of financial services for the urban sector.	1.4 Overall Accomplishments: · increasing interest in municipal bonds within the financial community. FIRE (D) Contributions: · ongoing dialogue with investment bankers and financial consultancy firms to develop their interest in the urban infrastructure sector. · assistance provided to the Center for Environmental Planning and Technology to develop knowledge and understanding of project development on a commercial basis.
	1.5 Contribute to the broadening and deepening the debt market.	1.5 Overall Accomplishments: · approval in principle for a depository system. · Reserve Bank of India (RBI) has granted primary dealer licenses to six financial institutions to deal in GOI securities. · National Stock Exchange established for the trading of debt instruments although trading volume is minimal. · interest on the part of the RBI to develop a benchmark rate for bond issues by developing a representative bond index. · investment requirements of the provident funds have been liberalized. · shift in GOI borrowing at more market related rates; some borrowings through an auction system. . FIRE (D) Contributions: · ongoing study to assess the requisite legal and procedural reforms necessary to streamline the issuance of municipal bonds within an appropriate regulatory framework.

2.3 Progress Toward Achieving Policy Objective II: Increase Private Sector Participation in the Delivery of Municipal Services and Land.

Table 2.2 presents the benchmark indicators for the private sector participation component of Policy Objective II together with a brief summary regarding progress to date in their achievement.

Table 2.2

Progress To Date Toward Achieving Benchmarks for Policy Objective II

Policy Agenda	Benchmarks	Status
2. Increase private sector participation in the delivery of municipal services and land development.	2.1 Policy advocacy	2.1 Overall Accomplishments: · increasing interest among local authorities to explore the possibility of joint-sector development of urban services. · recommendations by State Finance Commissions' working groups regarding private sector participation in the development and financing of infrastructure projects. · ILFS and HUDCO are lobbying for tax incentives for private sector investments in urban infrastructure. FIRE (D) Contributions: · seminar planned for 10/96 to discuss BOO/BOOT and variant options for joint sector delivery of urban services. · ongoing study to assess the capabilities, incentives, concessions, training and technical assistance needs of potential BOO/BOOT developers in India. · newly developed dialogue with private firms in the water sector regarding public/private partnerships in India. · sponsorship of international training programs focusing on public/private partnerships.
	2.2 Improve the ability of private developers and local government to form partnerships.	2.2 Overall Accomplishments: · private sector involvement in solid waste management. · private sector involvement in land development. · private sector involvement in developing roads and bridges. · private/community partnerships in solid waste collection and disposal through

		management contracts. · contracts awarded to the private sector to collect *octroi* tax FIRE (D) Contributions: · discussions with and planning support to private firms involved in solid waste management. · discussions with local authorities to explore the possibility of joint sector development of water, sewerage and land.
	2.3 Establish state level performance standards for urban services.	2.3 Overall Accomplishments: · recommendations by State Finance Commissions' working groups regarding performance standards for state-local transfers. · recommendations by State Finance Commissions' working groups regarding establishing urban information systems. FIRE (D) Contributions: · participation in State Finance Commission working groups. · assistance provided to NIUA for developing a framework for an urban infrastructure information system. · initiated the development of an urban performance indicator system for Maharastra.

2.4 Progress Toward Achieving Policy Objective III: Improve the Capacity of Local Governments to Plan, Operate, Maintain and Recover the Costs of Basic Urban Services

Table 2.3 below provides a brief summary of the benchmark indicators for the cost recovery component of the FIRE (D) project together with comments on the results obtained to date.

Table 2.3

Progress To Date Toward Achieving Benchmarks for Policy Objective III

Policy Agenda	Benchmarks	Status
3. Improve the capacity of local governments to plan, operate, maintain and recover the costs of basic urban services.	3.1 Improve the capacity of local governments to plan for basic urban services.	3.1 FIRE (D) Contributions: · ongoing study on city infrastructure prioritization has been initiated with applications for Tituppur and Vijaywada; methodology is expected to be replicated in other cities. · ongoing study on market assessment of urban services has been initiated with applications for Tiruppur and Pune; methodology is expected to be replicated in other cities. · an ongoing study on environmental impact assessment of urban environmental infrastructure projects. · an urban environmental mapping exercise is being prepared for Hyderabad and Pune in conjunction with NIUA. · a strategy for improvement of low income settlements is being developed for Tiruppur; methodology is expected to be replicated in other cities.
	3.2 Improve the capacity of local governments to enter into agreements with potential private providers of basic urban services.	3.2 FIRE (D) Contributions: · ongoing discussions with Pune Municipal Corporation to explore public/private partnership options for water supply and land development.
	3.3 Improve the capacity of local governments to develop and manage urban environmental infrastructure projects.	3.3 FIRE (D) Contributions: · development of a pre-identification, pre-feasibility analysis and rapid appraisal framework currently being applied by consulting firms contracted by HUDCO to assess commercial opportunities in three cities in Karnatika. · NIUA-sponsored national seminar on infrastructure finance and planning discussed these issues. · documentation of innovative project management systems is being undertaken by the Government of Maharashtra's City and Industrial Development Corporation

		which will provide input into Ahmedabad's project development process. · ILFS, in collaboration with the MSS Team and HUDCO, is reviewing project development options for Ahmedabad. · the MSS Team is reviewing project development options for the Pune Municipal Corporation.
	3.4 Improve the financial management capacity of local governments.	3.4 FIRE (D) Contributions: · ongoing design of improved accounting and financial management systems for local authorities; the first application is planned for Tiruppur; ongoing discussions with Hyderabad and Shimla. · working paper on property tax reforms in India has been prepared and a seminar is planned for 8/96 to discuss property tax issues.
	3.5 Improve the capacity of local governments to operate, maintain and recover the costs of basic urban services.	3.5 FIRE (D) Contributions: · pricing and cost recovery study has been initiated in Tiruppur. · NIUA-sponsored national seminar on infrastructure finance and planning discussed these issues.

2.5 Progress in the Implementation of the Technical Assistance and Training Component of the Project During the First Work Plan Period

The specific contents of the technical assistance and training program of the management support services (MSS) contractor for first work plan period together with a brief summary describing results obtained to date are presented below in Table 2.4. As will be discussed below in Section 2.7.5, the major flaw in execution of the technical assistance and training component of the project has been demand-driven nature of the MSS contractual framework.

Table 2.4

MSS November 1994 — April 1996 Work plan for Technical Assistance and Training

Project Identification and Selection	Description	Status
1) Rapid appraisal techniques to assess commercial viability of urban environmental infrastructure projects (UEIPs). RFS 1	Intended to develop a framework for rapid appraisal of UEIPs and provide technical assistance to financial institutions.	· pre-identification documents for water, sanitation and solid waste projects have been prepared · pre-feasibility analysis for water supply state I and II completed · HUDCO applied framework to 3 cities in Karnataka · Western Paques applied framework to solid waste projects · Application of framework in Ahmedabad and Pune underway · rapid appraisal framework for CVIPs developed · conversion of first three status items into training material for municipal officials underway
2) City infrastructure priorities. RFS 6	Intended to provide technical assistance to potential FIRE (D) demonstration cities to identify priorities and select projects for capital development using techniques such as environmental mapping and finance and operating plans.	· study in progress; first progress report for Tirappur submitted; results of the study to be incorporated into training modules · application in Ahmedabad, Hyderabad, Pune and Vijayawada underway
Project Development and Detailed Feasibility Analysis	Description	Status
3) Market assessment for urban environmental services. RFS 7	Intended to provide technical assistance to potential demonstration cities to assess demand and conduct a market study for urban environmental services based on surveys and consultations with community groups.	· study in progress for Pune and Tiruppur; results of the study to be incorporated into training modules
4) Technology options and environmental impact assessment (EIA) framework for UEIPs.	Intended to provide technical assistance to potential demonstration cities to apply a framework developed for selecting appropriate technology options based on costs and benefits and	· EIA study in progress; first progress report submitted; results of the study to be incorporated into training modules

	environmental impact assessment.	
5) Innovative resource mobilization.	Based on a global review of innovative resource mobilization efforts for municipal services, intended to provide technical assistance to demonstration cities to operationalize appropriate measures.	· work on revenue enhancements for Pune underway · round table on reforms for improving property tax revenue collection planned for August 1996 · revenue enhancement through pricing and cost recovery for water in Tiruppur completed
6) Development of demonstration commercially viable infrastructure projects (CVIPs).	Intended to provide technical assistance on an ongoing basis through Indian and U.S. consultants to HUDCO, ILFS and local government entities to formulate projects in cities.	· technical assistance to Tiruppur being provided; materials for training program for Tiruppur to be developed from this work · project development for Ahmedabad ongoing · potential for demonstration CVIPs in Hyderabad, Pune and Shimla being explored
7) Project development methodology for commercially viable infrastructure projects.	Based on research and technical assistance, intended to develop and refine methodologies and approaches (including computer-based tools) for development of commercially viable infrastructure projects in sectors of water, sanitation, solid waste management and large-scale land development projects, and to develop a baseline data collection framework and collect information regarding demonstration projects/cities for the purpose of impact evaluation.	· ongoing work under activities 2, 3, 4, 10, 17 and 20 will be used in the development of CVIPs · baseline data analysis is the responsibility of NIUA · consultation and support on project development methodology underway in Ahmedabad, Pune and Shimla
8) Project appraisal systems for commercially viable infrastructure projects.	Based on research and technical assistance, intended to develop project appraisal systems in the sectors of water, sanitation, solid waste management and large-scale land development projects.	· framework for rapid appraisal for CVIPs developed as part of activity 1 · ongoing work on activity 4 to be used to strengthen HUDCO and ILFS appraisal systems
Contract Framework for Urban Environmental Infrastructure Projects	Description	Status
9) Development of contract framework for demonstration commercially viable infrastructure projects.	Intended to provide technical assistance to HUDCO, ILFS and local entities to undertake risk assessments and to develop contract framework and detailed contract documents for	· technical assistance being provided to ILFS for Tiruppur project · model contracts based on experiences in Indonesian and the Philippines have been disseminated for review

	demonstration commercially viable infrastructure projects.	
10) Principles and approaches for contract frameworks for urban environmental infrastructure projects.	Intended to develop, based on Indian and international experiences, basic principles and methodologies for developing a contract framework and documents for different prototype urban environmental infrastructure models.	· this activity was deferred to the second work plan period
Project Management	Description	Status
11) Project management systems in demonstration commercially viable infrastructure projects.	Intended to provide technical assistance to HUDCO, ILFS and local entities to develop project management systems, especially using BOO/BOT arrangements in the demonstration commercially viable infrastructure projects.	· assistance not yet provided; support to Ahmedabad expected to be initiated soon
12) Principles and approaches for project management systems with private sector participation.	Intended to develop, based on Indian and international experience, basic principles and methodologies for project management systems with private sector participation.	· this activity was deferred to the second work plan period
Financial Planning and Resource Mobilization	Description	Status
13) Financial planning and instrument design in demonstration commercially viable infrastructure projects.	Intended to provide technical assistance to HUDCO and ILFS to develop detailed financial plans for resource mobilization during project construction and post commissioning phases, and design instruments for accessing debt markets.	· ILFS has not requested assistance · HUDCO's options for accessing the capital market being developed · formal discussion regarding securitization options for HUDCO's infrastructure loan portfolio were held in June 1996 · support is expected to be provided to Ahmedabad
14) Accessing U.S. capital markets for USAID Housing Guaranty funds.	Intended to provide technical assistance to HUDCO and ILFS to access U.S. capital markets for Housing Guaranty funds.	· ILFS has not requested assistance · HUDCO not yet ready to access Housing Guaranty funds
15) Feasibility of issuing project linked bonds for completed UEIPs.	Intended to assess the feasibility of issuing project linked bonds for a completed urban environmental project without Housing Guaranty funds.	· being explored under the securitization options for HUDCO's infrastructure loan portfolio
16) Financial Services Division at HUDCO.	Intended to review and assess the need for and feasibility of a Financial Services	· HUDCO has not requested assistance

	Division at HUDCO to enhance its ability to access the capital markets.	
Post Commission Operations	Description	Status
17) Municipal pricing and cost recovery systems.	Intended to provide technical assistance to municipal authorities in demonstration cities to develop and operationalize pricing and cost recovery systems for efficiency improvements.	· assessment of accounting systems, policies and procedures for Tiruppur municipality in progress · methodology for identifying revenues and expenditure in the provision of water has been developed for Tiruppur · pricing strategy for Tiruppur water has been prepared and presented to municipal officials for review; strategy is expected to be presented to state government authorities for approval in August 1996 · strategy for improving municipal accounting and financial management systems is being prepared and guidelines are being developed · new accounting and financial management systems for Hyderabad and Shimla have been proposed · incentives for improving the collection of user charges in Maharashtra are being explored · working paper on user charges has been prepared for national level state finance commission working group
18) Performance monitoring systems for demonstration cities.	Intended to provide technical assistance to municipal authorities and other local entities in demonstration cities to develop and operationalize performance monitoring systems for service delivery by public or private agencies and other non-governmental or community groups as appropriate.	· research on performance monitoring systems has been conducted ·urban performance indicator system has been developed; system will be initially tested in Maharashtra · urban environmental mapping under way in Hyderabad and Pune · local government performance measurement guide prepared based on U.S. experience · training materials to be developed based on the output from this activity
Policy Analysis and Promotion	Description	Status
19) Policy issues for municipal credit systems.	Research intended to identify policy issues and institutional alternatives to facilitate resource mobilization for	· study of the legal issues affecting municipal borrowing in progress; first progress report for Tamil Nadu

	municipal authorities through the capital market.	completed; study to be expanded to include Gujarat and Maharashtra · material prepared for workshop on municipal bonds · background material on municipal bonds submitted to the Rakesh Mohan Committee for Commercialization of Infrastructure · four articles on municipal credit systems prepared by the MSS Team published in various Indian newspapers · monograph prepared on state level support for municipal bonds in the U.S. · ongoing consultation with Ahmedabad and Pune regarding municipal credit systems · training materials to be developed based on the output from this activity
20) Credit assessment of municipal authorities and urban environmental infrastructure projects.	Research by Indian credit rating agencies assisted by U.S. consultants intended to assess issues for enhancing the creditworthiness of municipal authorities and to develop methodologies for credit rating of urban environmental infrastructure projects.	· study in progress; report on methodology submitted; application in Kerala and Vijayawada being explored · training materials to be developed based on the output from this activity
21) Institutional models for community-based organizations, non-governmental organizations and women's groups in the planning and management of urban environmental infrastructure services.	Research intended to identify the existing and potential roles of these groups in planning, demand assessment, performance monitoring and delivery of local services in the Indian context.	· support for student's dissertation on NGOs · development of case studies for training program ongoing
22) Review of service levels and willingness to pay for urban environmental infrastructure service improvements.	Research intended to document the available evidence of existing levels of service and willingness to pay.	· monograph prepared on Baroda residents' experience willingness to pay for water · approach developed for applying full cost recovery to user charges · user preferences and willingness to pay methodology developed for water, sanitation and solid waste; application in Pune and Tiruppur in progress
23) Technology options for urban environmental infrastructure services.	Research intended to identify the potential policy options for different services, their costs and applicability under different conditions.	· report not prepared; sufficient information readily available in India · support to Excel and Western Paques (solid waste management companies) being explored
24) Review of frameworks for other commercially viable infrastructure	Research intended to assess and document project and contract	· support for student's dissertation on technology options

service projects.	frameworks which have been used in other sectors such as power and transportation.	· monograph prepared on the road sector
25) Review of contracts and project management for urban environmental infrastructure projects.	Research intended to assess current practices of project management for urban environmental infrastructure projects including the contracts currently in use.	· documentation of innovative project management systems ongoing · training materials to be developed based on the output from this activity
26) Performance standards for urban environmental infrastructure projects.	Research leading to the development of performance standards for urban services including a review of existing standards wherever available.	· included in activity 18
27) Private developer capacity in India.	Research intended to assess the capacity of private developers to undertake urban environmental infrastructure projects on a BOO/BOT basis and to identify the technical assistance and training needs in this area.	· study in progress; first progress report submitted
28) Study of the Indian debt market.	Research intended to assess the ability of the Indian debt market to meet the needs of urban environmental infrastructure project-linked debt in terms of investor preferences and existing debt instruments.	· study in progress of investor patterns, volumes and investor regulations · support for two student dissertations on bond market issues · training materials to be developed based on the output from this activity
29) Information and communication system for urban environmental infrastructure services.	Support to be provided to NIUA for the development and operation of an information, documentation and communication system for urban infrastructure and to strengthen NIUA's capacity to manage the system.	· strategy developed for NIUA's information system for urban infrastructure; strategy to be discussed formally during July 1996 · monograph prepared on communication strategy for NIUA; round table discussion organized
30) Strategy for policy promotion.	Support to be provided to NIUA for the development of a strategy to promote policies leading to the development of a commercially viable infrastructure finance system in India and to strengthen NIUA's capacity to operationalize this strategy on an ongoing basis.	· retreat was organized for NIUA · monograph on policy promotion prepared; round table discussion organized

Training for FIRE (D) Participating Institutions	Description	Status
31) First exposure visit.	Study tour for senior personnel from NIUA, ILFS, HUDCO, related financial and legal services firms, and selected target cities intended to view innovative commercially structured urban environmental infrastructure projects in the U.S. or other countries.	· activity delayed until second work plan period due to cumbersome participant selection process utilized by the MOF's Department of Economic affairs which oversees all foreign based training
32) Second exposure visit.	Study tour for senior personnel from Indian agencies and institutions responsible for policy issues related to the development of commercially viable urban environmental infrastructure financing system intended to allow these individuals to interact with counterpart analysts and decision makers in other countries.	· activity delayed until second work plan period due to cumbersome participant selection process utilized by the MOF's Department of Economic affairs which oversees all foreign based training
33) "United States Municipal Bond Markets" seminar.	Seminar *cum* consultation involving senior personnel from NIUA, ILFS, HUDCO and other relevant individuals to intended to assess the relevance for India of the U.S. municipal bond market experience.	· national workshop on municipal bonds held during December 1995 attended by over 70 participants from both the public and private sectors
34) Catalogue course on "Public/Private Partnerships" for urban environmental infrastructure projects.	Two week catalogue course in the United States for senior personnel from NIUA, ILFS and HUDCO intended to provide an awareness and understanding of public/private partnerships for urban environmental infrastructure projects based on the experiences of other countries.	· 6 individuals from ILFS, HUDCO, NIUA, USAID/India, the State of Tamil Nadu Infrastructure Development Corporation and the State of Tamil Nadu Department of Municipal Administration and Water Supply attended a course on structuring financing and implementing public/private partnerships in urban development, shelter, municipal services and environmental infrastructure held in Washington, D.C. during October 1995
35) Catalogue course on "Design of Innovative Infrastructure Linked Debt Instruments."	One week catalogue course in the United States or other country for senior finance personnel from ILFS and HUDCO intended to impart the ability to design innovative debt instruments for urban environmental infrastructure projects.	· catalogue course unavailable for this subject matter
36) First workshop.	Orientation workshop on capital markets for junior- and middle-level personnel	· round table on state level framework for capital market access for state and

	from NIUA, ILFS, HUDCO and other relevant institutions intended to impart an understanding of the role and functions of India's capital markets.	local officials planned for October 1996
37) Second workshop.	Orientation workshop on environmental impact assessment for urban environmental infrastructure projects (including risk assessment, disaster mitigation, etc.) for middle- and senior-level personnel from NIUA, ILFS, HUDCO and other relevant institutions intended to impart an understanding of the impact assessment process.	· training program for NIUA, ILFS and HUDCO and implementing agencies planned after the environmental impact assessment framework is completed
38) Third workshop.	Orientation workshop on structuring commercially viable infrastructure projects for middle- and senior-level personnel from NIUA, ILFS, HUDCO and selected institutions intended to impart an understanding of the structuring process.	· MSS staff contributed to NIUA workshop for municipal commissioners on structuring financing for commercially viable infrastructure projects · round table discussion on the format for commercial project development planned for HUDCO staff during the second work plan period
39) Internal consultations.	Internal agency consultations on the objectives of the FIRE (D) project for NIUA, ILFS and HUDCO personnel intended to come to a consensus on methods to achieve project objectives.	· ongoing
Training for Local Authorities, Private Developers, and Community/Womens Groups	Description	Status
40) Training strategy for the FIRE (D) project.	Support provided to NIUA intended to assist in the development of a training strategy for municipal authorities, private developers, community based organizations and women's groups and to strengthen NIUA's capacity to develop and implement training activities.	· ongoing
41) Training materials development.	Support provided to NIUA intended to assist in the development of training materials for selected courses and short-term skills development modules related to commercially viable infrastructure projects.	· training materials being developed · curricula designed for a three-month graduate course on project development at the Center for Environmental Planning and Technology; ongoing instruction with the input of U.S. and

		Indian experts; course expect to be replicated in other post graduate institutions
42) Urban management linkage programs.	Intended to facilitate the development of an institutional network relating to urban including Indian and U.S. universities and relevant institutions.	· ongoing support to 10 student dissertations in FIRE (D) related topics · an operational network expected during the next work plan period
43) Catalogue course on "Accounting/Financial Management" for municipal officials.	Catalogue course in India for middle- and senior-level personnel from selected municipalities intended to upgrade the skills of accountants and finance officers.	· personnel to be selected once demonstration projects expanded
44) General catalogue courses/seminars.	Two week catalogue courses in India or other countries for personnel from NIUA, ILFS, HUDCO, selected municipalities, financial institutions and others intended to impart greater understanding regarding the development of commercially viable environmental infrastructure projects.	· two participants from ILFS attended course on contract negotiation for public/private partnerships held in Washington, D.C. during May 1996 · two participants from the Center for Environmental Planning and Technology attended course on project development for urban infrastructure held in Washington, D.C. during June 1996 · one participant from NIUA attended course on innovations in capacity building for urban services delivery held in Los Angeles during June 1996 · two participants from ILFS attended workshop on legal issues relating to private infrastructure construction projects held in New Delhi during June 1996 · three participants from HUDCO and two from ILFS to be sent to course on project development for the water and wastewater sectors during August 1996

2.5.1 Impact of the Technical Assistance and Training Component of the Project During the First Work Plan Period

On the basis of interviews with the key actors in the FIRE (D) project and a review of the project's extensive files, it appears that NIUA has manifest little initiative in availing itself of the considerable technical assistance and training resources available from the FIRE (D) project. The same can be said for HUDCO.

At the inception of the FIRE (D) project, USAID/India recognized that HUDCO was expected to require one or more years of technical assistance and training (and some degree of reorganization) before the corporation could operate effectively to develop commercially viable urban environmental infrastructure projects.

It is obvious that steps will need to be taken during the second work plan period to address what can only be perceived as a lack of interest in the technical assistance and training opportunities offered under the FIRE (D) project.

2.6 Status of Demonstration Projects to Promote Innovative Infrastructure Finance Methods

The goal of the FIRE (D) vis-à-vis demonstration projects is to identify a variety of projects that will be commercially viable from income generated from user fees or charges. The proceeds from private placements or public offerings 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. At the time of this evaluation, twenty months into the FIRE (D) project, three distinct opportunities exist that comply with the project replicability intentions of the FIRE (D) project by demonstrating the feasibility of developing and financing urban environmental infrastructure on a joint-sector basis. Of the three, only the Tiruppur Area Development Programme, being developed on a build-own-operate-transfer (BOOT) basis by ILFS, is in an advanced enough stage to serve as a case study for replication. Although NIUA is charged with the development of case studies as part of the development of training material for capacity building, the Tiruppur case study documentation is only in the preliminary stage.

2.6.1 Tiruppur Area Development Programme

Tiruppur is an industrial town located approximately 50 kilometers east of the city of Coimbatore in the State of Tamil Nadu. Tiruppur is known for textile processing and allied industrial activity. Over the past decade, Tiruppur has emerged as the largest exporter of cotton knitwear in India. It is estimated that the town accounts for over 90 percent of total Indian knitwear

exports which totaled Rs. 23,000 million during 1994/95. With a large number of industrial units spread in and around the town, there exists a high demand for industrial water. However, current infrastructure facilities in Tiruppur are inadequate with the absence of drainage and effluent treatment systems, poor and congested road networks, as well as insufficient water and power facilities. This has been compounded by a significant migration of local population from the surrounding areas contributing to an annual growth rate of 3.6 percent, higher than the state average.

Recognizing the need to rapidly upgrade the level of infrastructure services for facilitating development, the Government of Tamil Nadu (GOTN) initiated proactive measures such as declaring Tiruppur as an "Export Growth Center" and the establishment of high level "Empowered Committees" to ensure rapid implementation of development programs and expanded infrastructure services in the area. Despite such initiatives, progress toward upgrading current infrastructure services to the desired levels has been severely constrained by inadequate budgetary resources and the ability of the local municipality to raise the requisite resources for improved services is extremely limited.

As a result, the GOTN instructed the Tamil Nadu Corporation for Industrial Infrastructure Limited (TACID) to identify projects in the Tiruppur region that could be implemented on a priority basis and sustained by operating on a commercial basis. TACID put together an integrated area development plan for Tiruppur comprising several subprojects in diverse sectors including water supply, sewerage disposal, effluent treatment, and land development and housing. However, due to budgetary constraints, the Tiruppur Municipality was unable to commit resources for timely implementation of these needed projects. As a consequence, TACID engaged ILFS to conceptualize and structure these projects in a format that would be conducive to commercial financing. ILFS was also retained to arrange requisite financing for plan implementation.

2.6.1.2 Project Implementation Structure

The Tiruppur Area Development Programme (TADP) envisages the implementation of the three infrastructure facilities within the Tiruppur Local Planning Area comprising Tiruppur Municipality and the 16 adjacent villages in an area of 217 km². In addition, water supply will be provided to villages which lie along the pipeline corridor from the water supply source, comprising an area of 780 km². These facilities include:

- a water supply scheme to begin by serving a total population of 750,000 in 1999 and by 2021 cater to a population of approximately 1.4 million. In addition the scheme will supply 100 million liters per day of water to industrial units, mainly bleaching and dyeing factories in the area;

- a municipal sewage collection, treatment and disposal system is restricted to the population of the Tiruppur Municipality only and has been designed to serve an ultimate population of approximately 750,000 by the year 2022;

- an industrial effluent collection and treatment system has been designed to serve over 650 bleaching and dyeing units comprised of 11 common effluent treatment plants each serving an average of 60 units.

A public limited company, the Tiruppur Area Development Corporation Limited (NTADCL), has been formed to implement the TADP. NTADCL has been authorized by the GOTN to implement the TADP employing a commercial format. NTADCL's shareholders include ILFS, TACID, representing the GOTN, the Tiruppur Exporters Association (TEA), and the Government of India. To implement the water supply, sewerage and industrial wastewater components of TADP, NTADCL will enter into a concession agreement with GOTN. The concession will make NTADCL the owner of the systems developed as part of TADP, will allow NTADCL to contract an operator with responsibility for project implementation on a build-own-operate-transfer basis, and will offer the operator equity participation in the project. In return, NTADCL would be given the right to the revenue streams emanating from the TADP in order to recoup its investment and earn a reasonable return.

An experienced operator will be selected to build, operate and maintain the system over the concession period through a competitive bidding process. NTADCL would then enter into a fixed price construction agreement and an operation and maintenance agreement with the operator. Concurrently, NTACDC will enter into a bulk water takeoff agreement with the Tirappur Municipality and the industrial users within the TADP area.

NTADCL is envisaged as the apex agency through which the operator will implement TADP, operate and maintain the system and interface between GOTN and other levels of government, household consumers (with assistance from the Tiruppur Municipality), industrial consumers (with assistance from TEA), and project lenders. ILFS is responsible for mobilizing resources from lenders, investors, and the BOOT operator while the latter will have responsibility for the design, construction, operation and maintenance of the system. The U.S.. Agency for International Development has agreed to provide a Housing Guaranty loan in the amount of US$25 million. ILFS will act as the financial intermediary, borrowing dollar denominated resources from a qualified U.S. investor which will be swapped for Indian Rupees. The proceeds of the Housing Guaranty loan will be retained in an escrow account and will be onlent to NTADCL according to the project construction schedule upon meeting certain conditions precedent for loan disbursement.

2.6.1.3 Project Contractual Agreements

The five main contracts arising from the implementation structure described above include the following:

- the Concession Agreement will entail a tripartite contractual agreement between the GOTN and the Tiruppur Municipality which would establish NTADCL the concessionaire of the project with responsibility for implementation, operation and maintenance of TADP. In return, NTADCL will be given the right to the revenue

streams emanating from the project in order to recoup its investment and earn a reasonable return over the 30 year concession period.

- the Shareholders Agreement will delineate the rights and responsibilities of the shareholders of the NTADCL. This agreement will also define the method for surrender of share holdings and a procedure for admitting new shareholders into the company.

- the Construction Contract between NTADCL and the BOOT operator will entail a fixed price/fixed period turnkey agreement backed by appropriate guarantees to undertake the design, procurement and construction of specified project components. The contract will also define a performance warranty period which would come into force upon completion of construction.

- the Operation and Maintenance Contract between NTADCL and the BOOT operator will ensure levels of service based on predetermined standards.

- the Bulk Offtake Agreement between NTADCL, the Tiruppur Municipality and individual industrial consumers will ensure the offtake of a designated quantity and quality of water based on a predetermined bulk water price schedule which will be periodically revised. In addition, the agreement will provide for water purchase guarantees by the consumers and assign responsibility for the billing of consumers, collection of water charges, and maintenance of the distribution network.

2.6.1.4 Precedent Setting Aspects of the Tirappur Area Development Plan

The chronology of TADP implementation to date is replete with precedent setting "firsts" including, *inter alia*:

- comprehensive planning on local level initiated by state and local government in collaboration with private sector

- although water supply and waste water treatment had been the exclusive domain of the Tamil Nadu Water and Drainage Board, GOTN devolves to private sector the implementation of the TADP on a commercial basis incorporating the principles of full cost recovery, cross subsidization and market rates of return

- GOTN devolves to private sector water drawing rights

- GOTN agrees to BOOT framework and equity participation by a foreign operator

- TADP financing structure demonstrates viability of financial engineering employing Housing Guaranty resources

- GOI and GOTN participation in NTADCL demonstrate the viability of risk sharing with private sector

Although these "firsts" clearly demonstrate a change in attitude and, more importantly, actual policy shifts on the part of GOTN, it should be noted that the driving force behind TADP was the TEA, whose members account for a significant proportion of India's foreign exchange earnings. As such, TEA's advocacy for the TADP carried with it considerable political clout.

2.6.2 Ahmedabad Municipal Corporation's Civic Plan

In March of this year, the Ahmedabad Municipal Corporation (AMC) became the first Asian municipality to receive a credit rating for a proposed Rs. 100 *crore* bond issue. The debt is to be used to finance a Rs. 500 *crore* civic plan spread over five years for water supply, sewerage, bridges, overpasses and an ambitious slum development project. The remaining costs will be met by internal accruals and assistance from multilateral agencies such as the World Bank.

This city of 2.8 million located in the State of Gujarat, was also the first in India to recruit management graduates and chartered accountants. The AMC's municipal commissioner was one of the first to realize that with government cutting back on spending, municipalities would have to fend for themselves and he has set out to professionalize the city's administration to enable it to become more self-sufficient and responsible. These changes have begun to pay off as the AMC is one of the few Indian municipalities to have a surplus on its revenue account.

The AMC has reviewed the merits of the two typical types of municipal bonds available for debt financing — general obligation (GO) bonds and revenue obligation (RO) bonds. GO bonds would use all the taxes and assets of the AMC to service the debt, while RO bonds would rely on specific sources of revenue from facilities and services which are financed out of the bond proceeds. In this case, project earnings and assets would be pledged to shareholders. The AMC appears to favor initial use of GO bonds since charging for public services is still to become successful in India and RO bounds would depend on the revenue stream from such charges. The AMC initial choice is logical as only about 20 percent of its Rs. 404 *crore* revenues during 1995/96 came from user charges for services offered; the remainder was derived from property tax and *octroi* collections. Recent internal controls put in place by the AMC have boosted collection of both of these taxes.

In the case of *octroi*, the AMC recently simplified the assessment procedure, stepped up surprise checks and set up a market research wing to assess consumption patterns. During fiscal year 1996 just ended, *octroi* has grown by 37 percent to Rs. 210 *crore* from Rs. 153 *crore* last year. The AMC's property tax receipts show a near 65 percent increase over previous year's level to Rs. 120 *crore*.

2.6.3 Securitized and Structured Debt Obligations of the Housing and Urban Development Corporation

In response to the growing need for alternative sources of financing for industrial and infrastructure development, a large number of securitized and structured debt obligations (SDO) have emerged in the Indian debt market during the past three years. During this period several private institutions, state authorities and special purpose vehicles have issued nearly of Rs. 845 *crore* of such obligations for infrastructure projects alone. SDOs issues by existing state financing agencies seem to predominate, however, for a number of reasons related to risk aversion and tax advantages to investors.

The security and credit enhancement arrangements designed into SDOs are intended to insulate investors from default risk. This is accomplished through the use of escrow accounts that are established and maintained with financial institutions as trustees and are outside the control of the issuers. Revenues from project sources are deposited directly into the escrow account and these funds are then applied toward debt service and state guaranties. The first tier of the credit enhancement inherent in SDOs generally consists of over collateralization, i.e., the assignment of cash flows from predetermined sources (including user fees) where future cash receipts exceed debt service requirements. Second tier credit enhancement generally consists of revenues from sources other than predetermined sources including state budgetary allocations. A final tier of credit enhancement consists in the form of a state government guaranty to meet debt service shortfalls. It appears that both investors and rating agencies base their credit assessment of an SDO primarily on the strength of the obligation's legal structure and over collateralization rather than on the guaranty of the state.

This emerging market in SDOs offers HUDCO two unique opportunities to develop SDOs for: a) HUDCO's borrowers and; b) for HUDCO's own funding. Depending on the nature of the projects HUDCO chooses to include in an SDO portfolio, it should consider accessing Housing Guaranty resources to the extent that such funding is advantageous to the corporation.

In the case of SDOs for HUDCO's borrowers, these would enable the corporation's borrowers to fund new infrastructure projects or refinance existing projects. In the case of new projects, the proceeds from the SDO could be used to reduce the amount the project sponsor would have to borrow from HUDCO and therefore enable the corporation to leverage its own resources by enabling its borrowers to raise a portion of their financing requirements in the capital market. In the case of SDOs for existing projects, the obligation's proceeds could be used to pre-pay of the project borrower's debt to HUDCO.

The second opportunity available to HUDCO is to apply the SDO principal to securitize a diversified portfolio of the corporation's own existing infrastructure loans. Of the two options, this offerers the corporation the most numerous and immediate benefits. First and foremost, securitizing a portfolio of its existing loans would have the effect of diversifying the corporation's funding base

especially if the securitized funding is structured in such a way so that investments in SDOs would not be aggregated by current holders of the corporation's debt within their general exposure to HUDCO. Secondly, for those investors previously uninterested in holding HUDCO debt, newly issued SDOs would present a more favorable risk-return profile relative to HUDCO's conventional debt instruments. Finally, SDOs could be designed as "off balance sheet" transactions vis-à-vis financial accounting and capital adequacy which, in turn, would result in an improvement in the corporation's leverage ratios.

A great deal of effort will need to be expended to capitalized on the two SDO opportunities available to HUDCO as briefly described above. Numerous legal, regulatory, tax and accounting issues will need to be studied prior to approaching merchant bankers and rating agencies. Although HUDCO staff has already prepared preliminary information on 25 project loans in its existing portfolio based on selection criteria developed jointly by FIRE (D) consultants and HUDCO staff, the corporation will need a considerable amount of technical assistance to further assess the viability of specific projects for inclusion in an SDO portfolio, the attractiveness of the various SDO alternatives, and in the preparation of solicitations for proposals from merchant bankers which can be judged on an objective basis.

2.6.4 Other Opportunities for the Development of Demonstration Projects

NIUA and HUDCO plan to apply a set of critical urban performance indicators with the MSS Team developed to 15 selected cities for the purpose of identifying potential FIRE (D) demonstration projects. From the 15 cities, HUDCO plans to contract with consulting firms to develop commercially viable projects for those 5 cities with the most potential. NIUA will support this effort by contracting with the Investment Information and Credit Rating Agency of India, Ltd. to undertake credit ratings of these cities and their potential projects.

Additional opportunities include:

- FIRE (D) collaboration with Excel and Western Paques in the area of solid waste management;
- Dewas, an industrial water supply scheme which although promising, may be difficult to include the household sector, being reviewed by ILFS;
- three Karnataka towns being analyzed for commercial opportunities (employing the MSS Team's pre-feasibility framework) by consultancy firms contracted by HUDCO;
- the Kerala Water Authority which has approached CRISIL for a rating; and,
- the MSS Team's ongoing discussions with the municipalities of Hyderabad, Pune

and Shimla.

2.7 Role and Performance of USAID/India, the National Institute of Urban Affairs, Infrastructure Leasing and Financial Services, Ltd., the Housing and Urban Development Corporation, and the Management Support Services Contractor

2.7.1 USAID/India

Although USAID/India exercised patience while it pressed for NIUA to comply with the terms and conditions of its role as the FIRE (D) project's implementing agency, it must now press NIUA to act as the project leader and expedite the outputs under the NIUA work plan. In this regard, USAID/India bears responsibility for: a) a work plan which, although well funded, lacked rigor; and b) insufficient pressure to accomplish those activities that were spelled out in the NIUA work plan.

Fully cognizant that a number of exogenous factors largely precluded USAID/India from forcing the leadership issue, the present annual evaluation has come at an opportune time to provide the Mission with substantive justification for redirecting and refocussing NIUA's role and responsibilities. It is hoped that NIUA will avail itself of the tremendous opportunity afforded by the FIRE (D) project to strengthen itself sufficiently to play a leading role in the attainment of the FIRE (D) agenda. Though only limited HG resources are available for debt market development relative to the size of the Indian market, existing and evolving structures, regulation and procedures can multiply and thereby maximize the impact of these financial resources especially given the talented array of human resources available to the project both within USAID/India and through the MSS Team.

2.7.2 The National Institute for Urban Affairs

On the basis of limited field research, it appears that institutionally, NIUA needs to assign the requisite full-time resources to serve in a leadership role to initiate a process of joint-sector development and financing of urban environmental infrastructure projects. Key assumptions postulated in the Project Paper regarding NIUA's overall ability to effectively advocate for policy change and to coordinate the training for capacity building with demonstration state and local governments have not yet proven valid.

In attempting to summarize NIUA's record of performance since the initiation of the FIRE (D) project in late 1994, it is useful to review the strengths and technical assistance and training requirements of the institution in the context of the FIRE (D) project identified during an institutional needs assessment conducted during 1995 by TATA Consulting Services. The assessment points out that NIUA possessed a high level of skills and experience in three specific areas: advocacy and dissemination of policy, formulating training programs, and evaluation. From an internal capacity building standpoint, the TATA study indicated that in order to fulfill its mandate

as the FIRE (D) projects lead institution in promoting the commercialization of infrastructure, NIUA required additional skills and expertise to be brought to bear for successful project implementation. These included, *inter alia*, BOO/BOOT concepts, understanding of municipal bodies, debt market operations, evaluation and impact assessment techniques related to commercially viable infrastructure projects, project monitoring and cost recovery mechanisms. Many of these skill areas, particularly those relating to finance, are largely absent from the Institute's skill set. The Cooperative Agreement and the MSS contract afford NIUA a rare opportunity to upgrade existing skills and add to its human resource base. During the past two years, little progress has been made on this front.

2.7.2.1 The NIUA 2000 Retreat

Intended as an exercise to strengthen NIUA's capacity to fulfill its role as the project's implementing agency, especially in the area of policy analysis and promotion, the MSS Team planned and conducted a retreat during September 1995 for 14 senior NIUA staff including the Institute's Director. The approach was to facilitate the conduct of a strategic planning exercise in order to define a "vision" of the future direction of the Institute and identify the requisite changes to necessary to accomplish vision objectives. The 14 participants were individually interviewed prior to the retreat so that their input could be factored into the design of the retreat. The group concluded that the mission of NIUA should be that of "a nationally and internationally recognized center of excellence addressing urban issues....a resource center, competing well in the marketplace and known for high quality, state-of-the-art products, services and networks."

The group identified the policy, organizational, administrative and financial changes necessary to achieve and sustain this vision, which included organizing NIUA into productive revenue centers based on technical focus and/or expertise. The proposed reorganization would have positively impacted upon the implementation of the FIRE (D) project, as there would have been a greater focus on and organization of staff to carry out NIUA's responsibilities under the project. To date little has been done to implement the recommended changes and NIUA's performance as the FIRE (D) project's policy institution remains weak as evidenced by a review of the Institute's project work plan and accomplishments to date.

2.7.2.2 Progress in Implementing the NIUA Work Plan

The role of the National Institute of Urban Affairs as envisaged by both the Cooperative Agreement signed between USAID/India and NIUA and the FIRE (D) project was to promote, analyze and disseminate the policy change agenda contemplated under the debt market component of the FIRE (D) project, and to coordinate the training for capacity building with demonstration states and local governments. In both of these respects, there have been slippages on the part of NIUA. The April 1994 Cooperative Agreement provided NIUA with the sum of US$1,370,000 to provide support for project activities related to the development of a commercially viable infrastructure finance system. In addition, the MSS Team can augment these resources if necessary.

However, resources do not seem to be an issue in this case. More than two years after the signing of the CA, NIUA has drawn down less than 16 percent of the resources allocated to NIUA to play the lead role in promoting the FIRE (D) agenda. As delineated in the table below, output to date with regard to achievement of policy agenda benchmarks and other milestones has been less than what one would have expected of an implementing agency two years into the project, especially with regard to capacity building for state and local government officials. As of end-March, the status of NIUA's work plan was as follows:

Table 2.5

Status of NIUA FIRE (D) Work Plan at End-March 1996

Policy Promotion	Description	Status
Regional advocacy seminars.	Four regional workshops for state officials to promote the concept of commercially viable infrastructure projects financed by accessing the capital markets.	• three workshops held attended by state government officials, parastatal agencies representatives, municipal commissioners and mayors from the states of Madhya Pradesh, Maharashtra and Uttar Pradesh; a fourth workshop is scheduled
National seminar on commercialization of infrastructure.	NIUA faculty presented a series of papers which raised a number of issues for discussion.	• one seminar held attended by representatives of the Ministry of Urban Development and Employment and municipal commissioners
Policy study 1	Study on pricing and cost recovery of urban services.	• preliminary draft completed.
Policy study 2	Study of institutional arrangements for the delivery of urban services.	• preliminary draft completed.
Policy study 3	Study of existing levels of selected municipal services.	• ongoing.
Policy study 4	Study on environmental impact assessment.	• not undertaken due to the departure of the faculty specialist.
Information system for urban infrastructure	Development of an urban infrastructure information system by examining existing information systems and collecting information from existing databases related to urban services.	• "framework" completed.
Workshops in demonstration states.	Regional workshops on financing urban infrastructure to be held in Calcutta during May 1996.	• three workshops held attended by state government and parastatal agency officials, other public sector entities concerned with infrastructure and representatives from financial institutions form the sates of Andhra Pradesh, Gujarat and Tamil Nadu; a fourth workshop is scheduled

Training for Capacity Building	Description	Status
Training approach	Development of a training approach for capacity building of local authorities and other project implementation agencies.	• not yet initiated
Training needs assessment	Assess the training needs of local governments where potential projects have been identified.	• training needs assessment "concept paper" prepared; preliminary needs assessment conducted for Tiruppur.
Training plan		• not yet prepared.
Training modules and materials	Preparation of training modules and materials for the training program targeted at local governments and other project implementation agencies.	• five training modules identified; materials being collected.
Training program on infrastructure planning	Training session on the financing of urban infrastructure.	• two-day training session held attended by municipal commissioners from selected states
Policy Impact Analysis	**Description**	**Status**
Performance criteria	Development of performance criteria for project impact analysis.	• criteria prepared
Impact assessment studies	Collection of baseline data through the conduct of a household survey in municipalities where projects have been identified.	• a framework for impact assessment in Tiruppur has been prepared
Policy Dissemination	**Description**	**Status**
Communication strategy	Strategy to disseminate information regarding the FIRE (D) project's policy change agenda.	• ongoing
Documentation	Documentation of the lessons learned from municipalities where projects have been identified.	• preliminary draft of Tiruppur documentation completed.
Brochure/booklets/videos	Promotional material for the FIRE (D) project.	• brochure has been published.
Newsletter	Promotional vehicle for the FIRE (D) project.	• draft newsletter prepared.

Although the NIUA Executive Director is obviously hard at work behind the scenes to advance the FIRE (D) agenda as a result of his myriad responsibilities other than the FIRE (D) project, there is distinct need to delegate authority within NIUA to a full-time, senior-level project coordinator with knowledge of and experience with the key elements required for the commercialization of infrastructure, particularly the financial and project level aspects. The purpose of the Cooperative Agreement (CA) signed between NIUA and USAID/India in April 1994 was to strengthening NIUA while at the same time providing a mechanism for NIUA, working with USAID/India, to promote, analyze and disseminate the policy change agenda contemplated under the debt market development components of the FIRE (D) project, and to coordinate the training for

capacity building with demonstration states and local governments. To date the only tangible progress vis-à-vis the internal institutional strengthening component of the CA has been two staff members attendance of a two week course on infrastructure financing employing BOO/BOT techniques and the attendance of 14 senior staff at a retreat to define the Institute's vision and to identify the policy, organizational, administrative and financial changes necessary to achieve and sustain the vision. As discussed above, none of the recommended changes emanating from the retreat have been acted upon.

As far as the promotion, analysis and dissemination of the policy change is concerned, the TATA study identifies "advocating and dissemination of policy" as a key strength of NIUA. While this may indeed be the case, two years into its CA, the Institute has held only four seminars/workshops as part of its "Policy Promotion" Cooperative Agreement mandate. However, NIUA has shown that it can perform efficiently. For example, the four state meetings organized by the Institute attracted the attention of those officials present and initiated a dialogue on a policy long felt out of reach, namely, the development of commercially viable infrastructure projects at the state and local level on a public/private partnership basis. On the other hand, NIUA's sole training function to date to promote policy change, a two-day training seminar on the financing of urban infrastructure, turned out to be in effect a demonstration of the reluctance on the part of municipal commissioners to raise user changes for urban services to recover their costs, much less for putting these services on a commercial footing.

As far as the coordination of training for capacity building with demonstration states and local governments is concerned, NIUA has been noticeably less active in this area as witnessed by lack of a needs assessment in a "conceptual" stage, no training plan and undeveloped training modules and material. This is rather disappointing in light of the TATA assessment which identified "formulating training programs" as a key strength of the Institute. NIUA maintains that the delays in implementing its work plan, particularly with regard to capacity building at the state and local government level, are the result of the fact that it has taken considerably longer than expected to identify municipalities or urban services agencies with commercially viable projects. As such, there was no identifiable demand for NIUA services. Notwithstanding, it is clear that the development of training for state and local government officials should have proceeded from an early stage, particularly in light of the "demand" for capacity building at the local level as a result of the training and technical assistance implications of the 74th Constitutional Amendment Act and its new 12th Schedule.

Progress in all of these areas, institutional strengthening, advocacy for the policy change agenda, and capacity building at the state and local government levels, ***is critically important to the goal of the project*** and to the development of the requisite knowledge, skills and attitudinal change required at the state and local government level if joint-sector development of urban environmental infrastructure is to transition from a very few demonstration cases to a national trend.

2.7.3 Infrastructure Leasing and Financial Services, Ltd.

ILFS is a non-bank financial institution providing a comprehensive range of financial services in the areas of corporate finance (leasing, asset financing, financial advisory services, project finance and capital markets), market operations (securities trading and brokering), management of mutual funds, venture capital, and the commercialization of infrastructure projects. At the time of project design in 1993, ILFS was the only institution in India in a position to develop commercially viable infrastructure projects. The same is true today. During its relatively short period of existence, ILFS has evolved into an institution that is pioneering and promoting innovative approaches to infrastructure development in India. It has developed a pipeline of commercially viable projects including urban by-passes, mass transit systems, water and sanitation infrastructure and integrated area development.

ILFS' recent experience with the Rao-Pithampur Toll Road Project, India's first surface transport project conceived, built, financed and operated on a commercial basis, places it in a unique position to make an important contribution to the FIRE (D) project by demonstrating the viability of the BOO/BOT and variants concept in the provision of urban environmental infrastructure. Internal financing of the Rao-Pithampur project was initially adopted by ILFS due to the pioneering nature of the project and the need to demonstrate commercial viability before approaching the capital markets for refinancing. ILFS is currently syndicating a private placement of Rs. 70 million in Toll Bonds to be issued by MP Tolls Limited, a joint venture established and promoted by Madhya Pradesh State Industrial Development Corporation and ILFS. These ten year bonds will offer an annual yield to maturity of 17.33 percent and will be collateralized by the cash flows emanating from the collection of tolls. The credit rating agency Credit Analysis and Research Limited has rated these bonds "AA(SO)" indicating a high degree of certainty regarding timely repayment of financial obligations on the instrument.

Based on its success with the Rao-Pithampur project, ILFS was contracted by the Tamil Nadu Corporation for Industrial Infrastructure Development Limited to design and implement the Tiruppur Area Development Project on a BOOT basis. A multi disciplinary team comprises of in-house project and technical experts, financial analysts, economists and legal experts have been assigned to the project. The firm has also accessed external expertise through FIRE (D) to revalidate project costs and to formulate the contractual framework for the various parties to the project.

ILFS recently established an infrastructure finance division which it has located in New Delhi. Although ILFS has identified a relatively large number of environmental infrastructure projects, it is proceeding with the planning of only a few, apparently for two reasons: first, although it is the only player in town, ILFS has limited resources; and second, and probably more importantly, the firm must balance its allocation of these limited resources between pursuit of commercially viable environmental infrastructure projects and those in power and transportation sectors which bring a yield a larger and more immediate return.

Based on limited experience with ILFS' young and talented staff assigned to the Tiruppur project, there is an obvious need to improve the capacity to relate to municipal officials. As far back as 1993, USAID/India recognized that ILFS needed to devise a strategy to market the concept of debt financing of infrastructure among municipal officials. This holds true today. The firm's young staff are largely new to financial engineering and the requirements of long-term debt instruments, especially for environmental infrastructure and thus need to be trained and exposed to experiences elsewhere to serve as effective "ambassadors" of BOOT projects utilizing bond financing. Limited discussions with management confirm this.

2.7.4 The Housing and Urban Development Corporation

HUDCO is a public corporation in the portfolio of the Ministry of Urban Affairs and Employment whose main objective is to finance or undertake housing and urban development related projects. Since its formation in 1970, HUDCO has developed a strong track record of loaning below market rate resources to public agencies for housing and urban projects. In recent years, HUDCO has begun to emphasize urban environmental projects which now comprise nearly 45 percent of its portfolio. A review of its annual reports indicate that HUDCO has had some degree of success in recouping its loans and continues to demonstrate profitability.

HUDCO established an infrastructure wing in 1989 to increase its lending for urban environmental infrastructure projects. Funds for these infrastructure projects are sourced from borrowings from public institutions and equity contributions from the GOI. In the past these institutions were required by law to invest their Statutory Liquidity Reserve requirements in entities such as HUDCO which are engaged in activities deemed by the GOI to be socially desirable. This requirement ensured HUDCO a steady supply of below market rate funds. However, as part of the GOI's liberalization of its controls on the economy, the Statutory Liquidity Reserve requirement will continue to decline thus making it more difficult for HUDCO to raise money and ensuring that the funds it does raise are more costly due to competition for capital.

HUDCO can offset this emerging problem in two ways: 1) by rigorous application of commercial principles of cost recovery and loan repayments; and 2) by taking advantage of the opportunities afforded it by the emergence of structured and securitized debt obligations in the debt market (see Section 2.6.3 above). However, due its dependence on subsidized-cum-directed credit, the corporation has no experience with urban infrastructure projects developed in a commercial context. Rather than continuing to focus on whether its state and local government borrowers will repay their infrastructure loans, HUDCO needs to begin to structure its infrastructure projects in a way which will enable the corporation and its clients to access the capital market. The FIRE (D) project offers HUDCO a unique opportunity to develop a commercial orientation. Clearly the days of subsidized-cum-directed credit are numbered and HUDCO's future project financing options will be limited to a capital market approach. It is only logical to assume that HUDCO will seize this opportunity to upgrade its internal operations and management and develop financial engineering

skills to in order to assist municipalities to design commercially viable environmental infrastructure projects. Only by adopting a commercial orientation will HUDCO be able to ensure that the infrastructure projects it helps to design will be accepted for financing in the open market.

2.7.5 The Management Support Services Contractor

The MSS Team[8] receives high marks for the technical assistance and training it has been able to provide to date to the NIUA, ILFS, HUDCO and several municipalities and the furtherance of the goal of public/private partnerships in the provision of basic urban services. The MSS concept is generally viewed as a valuable resource by project constituents interviewed. MSS personnel are generally praised by those interviewed with regard to the key role they played in initiating a number of important research and technical assistance activities during the FIRE (D) project's first work plan period despite all of the implicit and explicit bottlenecks involved in attempting to operationalize a precedent setting concept. During the first work plan period (November 1994 through April 1996), the MSS Team initiated and disseminated nearly 20 technical studies related to the development and financing of commercially viable environmental infrastructure projects and, judging from the contents, these are of very high quality. In addition, the contractor conducted one national workshop highlighting country experiences with municipal bonds and the potential for developing a municipal bond system in India. The two-day workshop was attended by more than 70 senior government officials and private sector financial specialists and consultants. The MSS Team also prepared a report of the workshop's proceedings for dissemination to relevant parties.

The drawn out process of work plan development due to factors beyond its control led to delays in the implementation of the MSS Team's technical assistance and training agenda and adversely affected the timing of delivery of key initial inputs. In the absence of an approved work plan, resources available to the MSS Team were limited to local staff costs during the November 1994 through June 1995 period. To the MSS Team's credit, a considerable amount of output was, nevertheless, produced during the period as evidenced by the quarterly performance reports for the period.

The development of an overall implementation plan for the FIRE (D) project was predicated upon the completion of a RHUDO/New Delhi-sponsored institutional needs assessment carried out by TATA Consulting Services which was contracted prior to the awarding of the MSS contract. The TATA assessment provided recommendations for training and technical assistance to enable NIUA, ILFS and HUDCO to successfully carry out the FIRE (D) agenda. The results of this report, along with the reaction of the institutional partners to it, were to be taken into account by the MSS Team in developing the project's comprehensive implementation plan.

[8] A subcontract between Community Consulting International (CCI) and its principal subcontractor, Technical Support Services (TSS), was activated in December 1994. CCI provides the Chief of Party, Dr. Thomas Chapman, and an Administrator/Accountant, G.P. Singh. TSS manages the activities of its long-term Indian staff members, Dr. Meera Mehta, Chetan Vaidya and Susan d'Sousa; its Indian consultant, V. Satayanarayana; its U.S. consultants, Royce Lanier, Barbara Barrett Foster, Jeanine Kleimo and John Justino; and its own subcontractor, Peter Wong of Grigsby Brandford & Company.

In February 1995, the MSS Team held extensive discussions with NIUA, ILFS and HUDCO regarding the TATA report's recommendations in order to solicit their input for inclusion in the implementation plan. The plan was finalized at the end of February and was approved by RHUDO/New Delhi in March. NIUA, ILFS and HUDCO reviewed the plan and gave their approval during April. Approval by the FIRE (D) partners allowed for the subsequent development of the detailed work plan (presented in Table 2.4 above) and budget which was approved by RHUDO/New Delhi during May. With the approval of the work plan and budget by USAID/India's Contracts Office, the MSS Team was authorized to access resources for outside technical assistance and training expertise, both local and U.S.-based. Subsequently, NIUA, ILFS and HUDCO were asked to submit scopes of work prioritizing those technical assistance and training activities which they had identified for inclusion of the overall implementation plan.

Progress in the implementation of work plan activities as well as overall project status is reviewed in monthly meetings of the FIRE (D) partners and RHUDO/New Delhi. In addition to directing the activities of the MSS Team, these meetings provide an opportunity to fine tune the work plan to respond to evolving developments affecting the FIRE (D) agenda. However, the major flaw in execution of the technical assistance and training component of the project has been the demand-driven nature of the MSS contractual framework. Under the existing framework, the MSS Team is largely constrained from initiating technical assistance and training activities unless requested to do so by NIUA, ILFS or HUDCO. This "reactive mode" of operation precludes the optimal utilization of the considerable talent that both Community Consulting International and Technical Support Services have assembled for the FIRE (D) project. USAID/India should explore ways in which the MSS Team can be engaged in a more "proactive mode" of operation while at the same time respecting the FIRE (D) partners' "turf."

Furthermore, the MSS Team is largely constrained from seeking out targets of opportunity at the municipal level unless HUDCO personnel are directly involved. One of the reasons for the delay in collecting further information to more thoroughly analyze the Vijayawada sewerage project, for example, is that HUDCO's personnel have not been available to travel to this municipality. Surely, an alternative can be found to remove this bottleneck.

3. Recommendations

The following recommendations are offered in the context of a ***refocusing effort*** to support an enabling environment for the provision of environmental infrastructure developed on a joint-sector basis targeting, *inter alia*, the creation of innovative financial instruments, an accelerated pace of advocacy for the policy change agenda, and capacity building at the municipal, and to a lesser extent, the state level.

3.1 Recommendation for Improving the Performance of the Housing Guaranty Loan Component

bonds or other structured debt obligation one must examine both the likely volume of infrastructure debt to be offered for sale and the number of probable purchasers and the extent of their demand. A minimum level of activity is required to provide investors with the liquidity they may seek; and

- instrument design and pricing — for the urban environmental infrastructure sector to be able to attract funds from the financial markets while maintaining the current schedule of interest rates will require that a variety of instruments be developed and marketed each targeted to a different market segment.

A revised policy agenda directly relating to the above issues that should be considered in the process of refocusing the HG loan component of FIRE (D) might include, *inter alia*:

- the use of HG resources to leverage the direct financing of smaller-scale infrastructure projects and urban service expansion and the refinancing of HUDCO's existing portfolio of infrastructure loans;

- exploring the possibility of engaging additional non-bank financial institutions such as DSP Financial Consultants, the Industrial Credit and Investment Corporation of India, Ltd., the Industrial Finance Corporation of India, Ltd., the Industrial Development Bank of India and other institutions with proven records in the capital markets to participate in the development of a broader array of debt instruments to place in the market as a source of funds for commercialized infrastructure development.

- the development of credit enhancement mechanisms such as infrastructure bond interest payment insurance to avoid cash-flow interruptions possible in smaller municipalities, thereby enhancing the acceptability of such instruments/securities for institutional investors;

- the development and placement of securitized infrastructure loan packages, to further reduce the risks to be borne by institutional investors, and develop and market a diverse range of infrastructure bond packages specifically tailored to the risk, maturity, yield and other requirements of specific institutional investors; and,

- exploring the possibility of engaging other policy and information dissemination entities that would use resources now part of the Cooperative Agreement with NIUA.

As an end-of-project-status, the success of the FIRE (D) project in supporting the development of innovative debt instruments for urban infrastructure will contribute to the further development of India's capital markets, and pave the way for a wave of successive municipalities and local urban service boards to form public/private partnerships for the joint-sector development

and financing of urban infrastructure projects.

Recommendation 2: Initiate a formalized working relationship between the regulatory/operating environments and the debt components of the FIRE project.

One of the major objectives of the FIRE (D) project is to deepen the Indian debt market through the development of commercially viable urban infrastructure projects developed on a joint-sector basis. There are two aspects to consider regarding development of the debt market to serve as a reliable source of finance. The first aspect is the demand side of the market which is characterized by issuers and the infrastructure projects themselves. FIRE (D) is working to identify and develop commercially viable projects that can access the debt market for requisite resources. In so doing, one must look for innovative project structuring, security arrangements and credit enhancements and improvements in the areas of pricing and cost recovery. The other aspect of debt market development relates to the supply side of the market which is characterized by investors and the debt market itself. Despite recent positive changes, the debt market has failed to take off. The main constraint appears to be the lack of liquidity due to the absence of secondary market activity due largely to a relatively thin investor base.

The thin investor base issue is widely recognized. However, there has not been adequate attention paid to measures necessary for widening and diversifying it. It would also be useful to analyze investor behavior in the debt market focussing on how the infrastructure sector in general, and the urban infrastructure sector in particular, can access resources. As a point of departure for understanding the investor decision making process in order to gain insight into the proper structuring for projects for market access, it is crucial that both components of the FIRE project work toward the same end of improving the existing capital markets regulatory and operational environment so that the debt market can be developed to the full benefit of municipalities and urban service boards seeking to finance capital improvements through the market.

An agenda for the proposed working relationship might include the following:

- utilizing the FIRE (D) team's acknowledged expertise in municipal infrastructure delivery and project financing, together with input from Price Waterhouse's team of acknowledged experts in the field of capital markets, it is important to begin to share what each has learned with regard to key issues such as instruments and arrangements, investment patterns, regulations and investor preferences, and financial services and costs;

- joint development of a phased strategy to promote the desired project outcome of a sustainable infrastructure finance system development could be devised and the requisite technical assistance and training input could be brought to bear from the ample resources of the FIRE (D) project;

- a jointly organized workshop with the National Stock Exchange of India Limited (NSE) to formulate suggestions of specific steps the NSE can consider to encourage increased debt trading on the exchange, especially in light of the policy implications of the planned issuance of Tiruppur infrastructure bonds;

- a jointly organized workshop with the debt market constituencies to establish dialogue with and solicit input from the various constituencies regarding the policy issues for changes in investor guidelines for the financing of commercially viable infrastructure projects, implications of the planned issuance of the Tiruppur infrastructure bonds, the appetite of the constituencies for various types of innovative debt instruments which could be structured from the HUDCO portfolio and the planned issuance of Ahmedabad Municipal Corporation Bonds.

3.2 Recommendations for Improving the Performance of the Technical Assistance and Training Component of the FIRE (D) Project

The role of the National Institute of Urban Affairs as envisaged by both the Cooperative Agreement signed between USAID/India and NIUA and the FIRE (D) project was to promote, analyze and disseminate the policy change agenda contemplated under the debt market component of the FIRE (D) project, and to coordinate the training for capacity building with demonstration states and local governments. In both of these respects, there have been slippages on the part of NIUA despite the ample financial resources at its disposal. As described above in section 2.7.2.2, output to date with regard to achievement of policy agenda benchmarks and other milestones has been less than what one would have expected of an implementing agency two years into the project, especially with regard to capacity building for state and local government officials. To date, NIUA outputs have included:

- three regional advocacy workshops;
- three policy studies initiated;
- a framework for an urban infrastructure information system;
- three state level workshops;
- a training needs assessment concept paper
- no training plan
- various training modules identified
- one two-day training session for municipal commissioners;
- a draft policy dissemination communication strategy;
- preliminary documentation for case study purposes of the Tiruppur Area Development Project;
- a FIRE (D) project brochure; and
- a draft newsletter.

NIUA, like other FIRE (D) partner institutions has been faced with delays caused by the slow appearance of demonstration projects, central, state and local elections and the comings and goings of state government chief ministers and municipal commissioners. Not to discount the value of advocacy for policy change through national, regional and state fora, there remains the fundamentally crucial issue of coordinating training for capacity building among sate and local governments. This takes on added importance when viewed in the light of the ramifications of the 74th Amendment Act which devolves a significant number of imposing functions on local authorities. While NIUA argues that the lack of demonstration projects until recently created no demand for capacity building, this evaluator believes that capacity building must be the focal point of NIUA's activities. The only way to advance the concept of commercial development of urban infrastructure on a joint-sector basis is to build capacity within NIUA to enable it to coordinate programs for and provide technical assistance to state and local authorities for application of the joint-sector infrastructure development process over the long-term.

As such, the ***salient message of this evaluation*** is that there is a crucial need for a more proactive leadership role to be played on the part of the lead GOI institution, the National Institute of Urban Affairs, and in order to do so, either more personnel or more efficient use of existing personnel are required.

Recommendation 3: Develop a rigorous and comprehensive work plan for the National Institute of Urban Affairs with well monitored milestones and benchmarks to improve NIUA's institutional capacity to promote FIRE (D) principles at the central, state and local government levels.

As an end-of-project status, NIUA should be in a position where it can facilitate the development of training and dissemination of information related to standards of practice and performance for municipal governments, and which will continue a dialogue with policy makers at all levels of government to maximize the adoption and application of FIRE (D) principles and the development of capacity among municipal governments through sustained delivery of technical assistance and training. With less than nine quarters remaining in the life of the project, we are a long way from this position today.

The comprehensive work plan envisaged must focus on several simultaneous efforts, using a variety of techniques to disseminate information on the objectives, rational, and, most importantly, the benefits of joint-sector development of environmental infrastructure projects. Clearly, more emphasis needs to be placed on disseminating information on commercially viable infrastructure projects, their design, and the features of their financial analysis in the form of case studies what will serve as useful models for Indian municipal managers.

In conjunction with NIUA's efforts to increase public awareness through promotion and dissemination of the policy change agenda at the central and state government level, NIUA, with MSS Team support, should undertake a parallel program to create support be a structured public

awareness campaign among municipal officials and municipal populations for infrastructure jointly developed by the public and private sectors.

The comprehensive work plan envisaged should be held to the same standards as that of the MSS Team. The work plan should be performance driven, with quantitative and qualitative performance indicators developed for each plan element. It should also commit specific faculty members or consultants to pre-determined levels of effort with precise time horizons for completion of tasks, and well-defined, practicable deliverables (i.e., not merely "frameworks" or "drafts" or "concepts"). A well-conceived budget should also be required as part of the overall work plan. Furthermore, NIUA's performance under the work plan should be closely monitored by RHUDO/New Delhi.

Recommendation 4: Conduct an institutional assessment of a variety of the training providers available in India such as the Ministry of Urban Affairs and Employment's regional urban and environmental studies training centers, the Institute for Local Self Government, the state level urban studies centers, schools of urban planning, the Institutes of Management, and HUDCO's Human Settlements Management Institute to identify four to five institutions where capacity building for state and local government personnel can be initiated in the near term.

While it is beyond the scope of this evaluation to recommend specific assessment criteria for selection of these institutions, these criteria should focus on the following issues:

- receptivity to and understanding of FIRE (D) principles; and
- existing curricula that could be adapted to impart requisite knowledge and develop new skills by municipal personnel in the areas of project development, planning and management of urban services, financing urban services, and municipal governance;
- innovative instructional techniques or an institutional mind set that offer the opportunity to change the attitudes and motivation of those responsible for urban service delivery at different levels of the municipal hierarchy.

Recommendation 5: Enter into memoranda of understanding with four to five regional training institutions and begin the process of selecting training modalities, curriculum design and participant selection criteria which will substantively contribute to capacity building for targeted state and local government officials.

Both the Cooperative Agreement with NIUA and the FIRE (D) project's grant component offers the state and local government officials at all levels an unparalleled opportunity to profit from technical assistance and training for application of the joint-sector infrastructure development

process. In order for the resources provided for this purpose to begin to have a more tangible impact upon the performance these governmental entities during the remaining life of the project, the MSS Team must be able to initiate an ambitions training program channeled through NIUA during the second work plan period.

While NIUA cannot and need not physically conduct training on the scale envisaged at the regional level, it should and can act as the coordinator of curriculum design. Given NIUA's responsibility to promote the policy change agenda, there may be utility in sharing responsibility for the curriculum development with NIUA focussing on the political trainees, i.e., municipal commissioners and mayors, for example, and the MSS Team focussing on operational personnel.

NIUA's focus vis-à-vis political trainees should be to impart to them that the most important component of a commercialization strategy is the political commitment to implement it. State and local government leaders must first recognize that due to severe constrains on public financing, requisite improvements in urban environmental infrastructure necessitate a partnership with the private sector. This recognition must then be translated into proactive financial, regulatory and enforcement policies that support private sector participation in the delivery of water and sanitation services. Communication between local officials and the public, as well as between central and state government officials and their institutions, will be a major factor in generating political will and in determining the relative success of the activities that the FIRE (D) project envisions.

In this regard, it is crucial that NIUA prioritize the disseminating information on commercially viable infrastructure projects, their design, and the features of their financial analysis in the form of case studies what will serve as useful models for Indian municipal managers and form the basis for ongoing curriculum development.

While it is in the manageable interest of the FIRE (D) project to provide both financial and technical support to the selected training institutions in the short-run, this support is intended to serve as a capacity building exercise itself for the key training institutions selected.

In developing specific curricula to advance the cause of joint-sector development of infrastructure, five guiding themes are offered for consideration. These themes are intended to support the broad-based policy agenda and achieve the institutional development objectives of FIRE (D) in general, and public/private partnerships for the development of urban environmental infrastructure in particular:

- *Political Commitment* — As discussed above, the most important component of a privatization strategy for environmental infrastructure (including joint sector development) is the political commitment to implement such a strategy.

- *Comprehensive Planning* — Central government agencies together with state and municipal governments must begin to view investment in urban environmental

services within the context of a comprehensive capital budgeting and planning approach, incorporating all elements of the delivery system. This is particularly important in the privatization process to ensure that the private sector's component(s) fit into, and are supported by, an overall urban services plan.

- *Financial Autonomy* — To ensure efficient delivery on a continual basis, environmental infrastructure requires an autonomous, reliable source of funds. Municipal officials in India will need to begin programming funds specially earmarked fro specific urban services. More importantly, state urban services delivery agencies and municipal governments will need to focus their attention on adopting appropriate service fees–particularly for commercial, industrial, and institutional clients–as a means of providing viable and equitable sources of financing for urban services.

- *Financial Accountability* — A prerequisite to any privatization or joint sector infrastructure development plan is a thorough understanding of the true costs of service delivery and the magnitude and sources of financing required to sustain it. It is absolutely that state urban services delivery agencies and local governments, which will negotiate and evaluate private contracts, and the private investors, who will budget for expenses and profit margins, know the actual, unsubsidized costs of providing urban services.

- *Public/Private Relationship: Rights and Responsibilities* — Contracting out to private sector firms is a method of privatization that has been most widely used in developing countries, and it has fewer implementation problems and constraints than other methods. Nevertheless, despite its familiarity and relative simplicity, contracting out is often poorly managed. India's potential public participants must realize that they run a great risk if they give up too much responsibility and control to potential private contractors. In the end, local residents will hold municipal leaders responsible if prices are too high or service levels too low for expected public services. State level urban services delivery agencies and the municipalities must ensure that the private firms they contract are truly operating cost effectively and that they are maintaining high standards of service delivery.

Recommendation 6: Given that so many potential recipients of technical assistance and training exist at the state and local government levels[10], priority should be given to those whose improved skills will most benefits the establishment of joint-sector development of environmental infrastructure in

10 It is estimated that there are approximately 722,000 municipal employees throughout India, of which senior staff account for less than 30,000. Junior- and middle-level staff number some 180,000 with the remainder support or unskilled personnel. Against this huge complement of staff in need of training, the annual number of individuals undergoing formal training in different regional and national level institutions if very small. The demand for training will only increase following the 74th Amendment's devolution of additional (and specialized) responsibilities to the municipalities.

the very near term.

Although a comprehensive training plan has been recently prepared by the MSS Team, an intensive training program needs to be initiated immediately. In selecting participants for the program, priority should be given to middle-level municipal employees who will eventually be in the forefront of formulating investment plans, appraising environmental infrastructure projects, enhancing local revenue generation, and contracting for environmental services with the private sector.

Traditionally, overseas training and/or study tours have been offered either as an award for superior performance on the job or on the basis of patronage. In either case, the cost of a two-week overseas training course for a small group of, say, six participants can exceed fifty thousand dollars. Given the fact that India-based training is the most cost effective approach to reaching the magnitude of targeted state and local level employees, United States or third country training venues should be minimized.

Recommendation 7: Provide support to non-governmental organizations active in the urban sector to assist in the development of innovative approaches to urban service provision in line with FIRE (D) principles through mobilizing community groups.

Based on limited field research of the Madras-based non-governmental organization (NGO), EXNORA, it appears that this NGO has experienced a number of successes in mobilizing the labor services of community neighborhoods and assisting them to undertake neighborhood improvement programs, care and maintenance of public open space, area clean up of litter, cleaning of roadside drains, street cleaning, and neighborhood garbage collection. EXNORA and other NGOs have the potential to organize neighborhood waste collection on a relatively large scale and thus encourage private Indian solid waste companies such as Excel and Western Paques to enter the market.

Using the considerable resources available under the NIUA Cooperative Agreement, an NGO activity should be initiated under the FIRE (D) project to initiate, guide, assist, and monitor a solid waste pilot program employing a community neighborhood group approach under the auspices of EXNORA and other regional and local NGOs.

3.3 Recommendations for Priority Activities to be Included in the Program's Fiscal Year 1994 Technical Assistance and Training Work Plan

In the context of refocusing the FIRE (D) project around a scheme or schemes that will allow the commercialized infrastructure projects to look to India's financial markets for sources of funds, the project's second work plan should include the following activities:

- **Technical Assistance and Training in the Formulation of Investment Plans** — India's small municipalities apparently do not employ even the simplest systematic process for capital investment planning. As such, it is recommended that the MSS Team offer technical assistance and training targeting municipal authorities to enable them to make rational decisions regarding capital investments. This decision making process should start with an inventory of all existing infrastructure that specifies size or quantity, age, coverage, and current condition. From this inventory, the municipality can then make rational decisions to undertake capital investment, employing BOOT terms, where appropriate, based on three key assumptions:

    - the need to reconstruct or replace existing facilities to maintain existing levels and quality of service;
    - the need to upgrade or add to existing facilities to improve either the quality of service or coverage;
    - the need to undertake new programs or services beyond those the municipality currently offers for economic or social reasons.

- **Technical Assistance and Training to Enhance Local Revenue Generation** — Strengthening local revenue mobilization is fundamental to private participation in infrastructure investment and service delivery. Given the constraints on central and state government financing, local authorities will be able to meet their investment targets only by generating income streams that can help pay for capital costs. Moreover, effective pricing of local public services is a prerequisite for effective recovery of existing services, gauging market demand, and making market-driven choices regarding local investment priorities. Its is this central to the process of designing infrastructure projects on a joint-sector basis.

  The revenue yield from local taxes and charges could be substantially increased in India if the local revenue administration were improved. Revenue administration is concerned with the implementation of fiscal policy: the process of identifying and registering taxpayers and consumers and assessing, collecting and enforcing. It is concerned with the administrative feasibility of a local tax source or charge. If a revenue source cannot be administered effectively, i.e., it falls short of potential, or efficiently, i.e., if costs represent an unreasonable percentage of yields, it is necessary to reconsider its imposition and to evaluate substitutes.

- **Technical Assistance and Training in the Contracting for Environmental Services with the Private Sector** — It is doubtful that India's local governments would be fully able to develop, negotiate, manage, monitor, and enforce a competent contract instrument. Several basic elements in the contracting process will require municipal governments' special attention, specifically with regard to contractor qualifications and the tendering process. When a local authority is preparing its contract specifications, it needs to have a clear idea of exactly what it wants. The MSS Team's assistance in preparing contract specification will

go a long way to ensure that an appropriate bidding company knows exactly what its is getting into and what kind of revenues it can generate. Contracting is a viable means of securing service as long as it is possible to adequately describe the outputs anticipated from the contract.

Annex A. Statement of Work

Annual Evaluation
Financial Institutions Reform and Expansion Project
(Debt Component)

The original Financial Institutions Reform and Expansion Project (FIRE) (366-HG-004) was approved in September 1993 and has made available US$125 mission in loan funds and US$20 million in grant funds for technical assistance, training and management support services. The project has three components: 1) the Regulatory Environment Improvement Component; 2) the Operating Environment Improvement component; and 3) the Debt Market Development Component.

The Debt Market Development Component has been provided with US$125 million in Housing Guaranty (HG) assistance over a five year period and US$6 million for technical assistance, training and management support services. The Debt Market Development Component will contribute directly to improving environmental conditions and living standards in selected urban areas, and will provide a broader capital base for the country to expand its infrastructure facilities over the medium and long term.

The purpose of the debt market component, FIRE (D), is to assist in the development of the debt side of the capital markets by demonstrating the commercial viability of selected urban environmental infrastructure projects.

The policy agenda for FIRE (D) is organized around supporting the following objectives:

a) the development of a commercially-viable infrastructure finance system;
b) increased private sector participation in the delivery of municipal services;
c) improved local government capacity to plan, operate, maintain and recover the cost of urban environmental infrastructure projects; and
d) decentralization of authority for urban development and management from state to local government.

Housing Guaranty funds, combined with technical assistance and training, will be used to achieve policy change benchmarks as illustrated above. The development a market-oriented infrastructure finance system is designed to support the development of the debt market by using Housing Guaranty funds to complement the issuance of debt instruments to finance urban environmental infrastructure projects. Two financial intermediaries (FI), i.e., the Housing and Urban Development Corporation (HUDCO) and Infrastructure Leasing and Financial Services, Ltd. (ILFS) have been selected and will channel 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 FIs will borrow US$125 million in tranches, under the HG authority from a qualified US investor, which will be used to generate an equivalent value in rupees. The FIs will raise a matching amount of rupees or more, thereby creating a pool of at least US$250 million to be used to make loans for the selected infrastructure demonstration projects. The purpose of the demonstration projects will be to encourage the supply of debt securities, to strengthen the channel of distribution, and to test the level of demand. a more general purpose will be to demonstrate the policy reform required to establish a commercially viable infrastructure finance system.

National Institute of Urban Affairs (NIUA). As provided in the implementation agreement, USAID has entered into a Cooperative Agreement with NIUA which will work with USAID in the development and implementation of the technical assistance and training program of the debt market component of the project. The role of NIUA will be to provide policy promotion, evaluation and dissemination through related research and studies, publications and workshops.

Management Support Services. As provided in the implementation agreement, USAID has directly contracted Community Consulting International, Inc. (CCI), a U.S. consulting firm to provide management support services (MSS) under the project to deliver the technical assistance, training and studies to support the policy agenda under the debt market component of the project. The MSS contract between USAID and CCI was signed during November 1994, and subsequently the MSS contractor started working based on a work plan/implementation plan developed by the contractor and approved by USAID for undertaking technical assistance and training activities outlined in the plan.

(Further details on the project arrangements and institutions are available in the Annex)

ARTICLE I: TITLE

Financial Institutions Reform and Expansion (Debt Market Development Component): Annual Evaluation.

ARTICLE II: OBJECTIVE OF THE ANNUAL EVALUATION

The annual evaluation provides an opportunity to measure the accomplishments, and recommend alterations in program directions. The primary objective of the annual evaluation, described in the following statement of work, is to appraise progress made towards achievement of objectives of the FIRE (D) program. The results of the evaluation will be incorporated into the annual amendments of the implementation plan for technical assistance and training for the following year.

ARTICLE III: STATEMENT OF WORK

The contractor shall conduct an evaluation which addresses the following:

I) Identify major accomplishments of the program during the period October '94 to December '95 and identify constraints, if any, to program implementation.

ii) Review in detail the progress of implementation of technical assistance and training activities scheduled for the period October '94 to December '95, as per the implementation plan of the MSS Contractor and the approved work plan of NIUA, (including start up activities) and identify obstacles or constraints, if any, to effective implementation. Based on the review suggest activities to be included according to priority, for next year's implementation plan.

iii) Assess the impact of the technical assistance and training activities (including start up activities) undertaken during the period on HUDCO, ILFS, NIUA and other participants and towards the attainment of program objectives outlined in the Project Paper Log Frame/Policy Matrix.

iv) Assess and evaluate the role and performance of the FIs (HUDCO and ILFS) toward project development; MSS Contractor, NIUA and USAID in implementation of the technical assistance and

training implementation plan, policy analysis, evaluation and dissemination, provision of funding, timeliness of approvals, and coordination as well as progress towards achievement of program objectives. The contractor will identify constraints/problems areas and offer recommendations on how these can be improved upon.

v) The contractor will prepare a report that documents "results" of activities, and that contains specific recommendations for I) activities to be included and priorities for the next year annual work plan/implementation plan for MSS and NIUA; and ii) ways to improve the performance of the current program.

ARTICLE IV: METHODOLOGY

I) The contractor will review the following documents before starting the field work:

a) USAID Project Paper for the Financial Institutions Reform and Expansion Program;
b) Program Agreement (HG-004 and 386-0531), Cooperative Agreement between NIUA and USAID; and
c) Annual Implementation/Work Plan for MSS and NIUA.

ii) Contractor will make assessment of the progress by review of project records, interviews and discussions with ILFS, HUDCO, RHUDO/ New Delhi, USAID/India, the MSS Contractor's field staff and other project agencies including local and state authorities.

ARTICLE V: REPORTING

The contractor will attend a briefing session at USAID shortly after arrival in India and hold a midway meeting with USAID. The contractor shall also conduct an exit briefing on findings and conclusions prior to departure from India.

The contractor shall prepare an annual evaluation report. Two copies of the draft report will be submitted to RHUDO/New Delhi one day prior to departure of the contractor from India. The contractor shall submit one original and 10 copies (along with a diskette) on the final Evaluation Report within two weeks of receipt of comments on the draft report from RHUDO/New Delhi.

ARTICLE VI: RELATIONSHIPS AND RESPONSIBILITIES

The contractor shall work under the directions of Director, RHUDO. The RHUDO Project Officer will provide coordination for RHUDO. All contacts with local counterpart institutions will be through RHUDO/New Delhi.

ARTICLE VII: STAFFING

The consultant shall be a senior Infrastructure Finance/Municipal Services Specialist.

ARTICLE VIII: PERFORMANCE PERIOD

The performance period for the activity will be 90 days from the start of work.

ARTICLE IX: LEVEL OF EFFORT

Infrastructure Finance/Municipal Services Specialist: 21 work days. a six day work week will be authorized.

Washington.....	3 days
Field work.....	16 days
Travel to India.....	2 days
Total	21 days