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Case Study Municipal Development Funds In India:

MMRDA: From Physical Planning To Infrastructure Finance

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MMRDA : FROM PHYSICAL PLANNING TO INFRASTRUCTURE FINANCE[1]

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1.0 Background

1.1 Mumbai (formerly known as Bombay) has historically developed as a colonial port city with textile industry and later as a seat of government and a centre of financial services. As a result, Mumbai experienced phenomenal population growth transcending its municipal boundries. The Mumbai Metropolitan Region Development Authority (MMRDA) was therefore constituted in 1975 under the MMRDA Act 1974 for continuous planning and coordination of development in Mumbai Metropolitan Region (MMR). The MMR covers an area of 4,355 sq.km. and includes Municipal Corporations of Brihanmumbai (Greater Bombay), Thane, Kalyan, Navi Mumbai and Ulhasnagar, 15 Municipal Councils and over 950 surrounding villages. The population of the region in 1991 was 14.5 million.

1.2 The MMRDA Act provides for review of any physical, financial and economic plans and projects or schemes and empowers MMRDA to undertake revision of Regional Plan for MMR. The MMRDA can formulate, coordinate execute and also finance projects and schemes for planned and orderly development of the MMR. The Act also allows MMRDA to borrow with prior approval of the State Government and empowers MMRDA to give grants, advances or loans to local authorities or other authorities for the purposes of the Act. Although the Act provides for wide ranging activities which could be carried out by the Authority, MMRDA's role has evolved over the last two decades in response to its operating environment.

1.3 The principal sources of finance provided for in the Act are : contribution from the State Government, loans from financial institutions/Government, a cess on properties and a betterment levy; and receipts from sale of developed land. The sale of land has by far been the most important source of finance for MMRDA.

2.0 Physical Planning and Control of Development

2.1 The Regional Plan for MMR, 1970-91 aimed at restricting the population growth of Mumbai by developing Navi Mumbai as a counter magnate and changing the north-south growth pattern into a multi-nucleated spatial structure. As a part of this strategy, the Plan recommended restrictions on industrial growth in Brihanmumbai and relocation of wholesale establishments to new growth centres within and outside Brihanmumbai. In furtherance of this strategy, in June 1977 the MMRDA invoked its special powers to control

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further proliferation of offices and wholesale establishments in the island city of Mumbai and generally to restrict all developments in the island city to the FSI of 1.33 and the FSI of 1.0 in the suburbs..

2.2 While CIDCO was appointed for planning and development of Navi Mumbai in 1970, MMRDA undertook planning and development of other growth centres such as Bandra-Kurla Complex, Oshiwara District Centre in Brihanmumbai in late 70s. As a Special Planning Authority, MMRDA has also prepared statutory plan for Backbay Reclamation Area and Structure Plan for Kalyan Complex.

Bandra Kurla Complex (BKC)

BKC is being planned and developed on 370 ha. of land on either side of the Mahim creek located between the two suburbs of Bandra and Kurla within Brihanmumbai. The earlier object of BKC is to help arrest further concentration of offices and commercial activities in South Mumbai. As Mumbai's response to the national economic liberalisation policy, MMRDA has proposed to develop an International Finance Business Centre (IFBC) on 100 ha. area in the Bandra Kurla Complex.

2.3 The 1970 Regional Plan achieved limited success in controlling physical development through land use planning and development control. The population and economic growth scenarios in the region as well as the macro-level policy context has substantially changed since the Plan was formulated. In the draft revised Regional Plan for MMR, 1996-2011 the MMRDA has proposed reversal of earlier restrictive policies in order to promote economic growth with due consideration for environmental issues. The revised Plan has also highlighted the need for adopting innovative approaches for urban infrastructure investment.

3.0 Project Formulation and Monitoring

3.1 The IDA assisted Bombay Urban Development Project (BUDP), was planned and formulated by BMRDA to increase the supply of affordable land and shelter mainly for the low income families in the MMR. The BUDP also included in its expanded scope a large component of urban infrastructure development. The project implementation carried out by multiple agencies during 1985-94 was also coordinated and monitored by MMRDA. Total expenditure of Rs. 4,350 million (US$ 192 million) was incurred and a credit of US $. 125 million (Rs. 2,830 million) was used.

3.2 MMRDA has also formulated and monitored the Bombay Urban Transport Project - I and is currently in the process of preparing MUTP - II with a large rail component which will be implemented with the financial assistance of the World Bank. MMRDA is also the nodal agency for the Mega City Programme being implemented in the MMR.

3.3 MMRDA has gained wide experience in the appraisal, coordination and monitoring of projects including those in the infrastructure sector through these projects.

4.0 Infrastructure Finance

4.1 BUDP - Revolving Fund

4.1.1 In accordance with the BUDP Project Agreement with the World Bank, a Revolving Fund has been established in MMRDA in 1988 for financing similar projects in MMR on sustained basis. The fund flow arrangement of the project envisages that 45% amount of the repayment to be made by the project implementing agencies towards loan received by them under the project will be deposited in the Revolving Fund. The remaining 55% will be paid to the Government of Maharashtra. The total expected contribution to the Revolving Fund is about Rs. 3,000 million (US$ 83 million) over a 20 year period. By September 1996, Rs. 680 million (US$ 19 million) were received in the Fund. The proceeds of the fund can be applied to the following purposes :

a. Co-financing of projects similar to BUDP;
b. Low Income Housing by other public agencies, in the form of sites and services similar to BUDP;
c. Slum upgrading projects by public agencies or local authorities, similar to those implemented under BUDP;
d. Improvement in local government services including procurement of plants, equipment, vehicles and related civil works for water supply, sewerage, solid waste management, fire services, roads and bridges, storm water drainage, street lighting, primary education and health services;
e. Technical assistance for project formulation and for improvement in project monitoring and administration systems and feasibility of computer usage; and
f. Equity participation in remunerative projects which have higher rate of return.

4.1.2 Projects involving civil works and procurement of municipal equipment of all the local authorities and parastatals operating in MMR could be financed under the Fund. MMRDA has however decided to accord high priority to assistance to Municipal Councils in the outer areas of MMR since they find it difficult to mobilise financial resources required for capital investments. Under BUDP - RF loan assistance is provided to the extent of 90% of the total estimated cost of the project. The minimum interest rate charged is 9% p.a. whereas the maximum period of repayment is 15 years. Assistance in the form of grants is also given for carrying out feasibility studies. MMRDA has so far given loan assistance to 10 municipal councils and 2 corporations and grants to 8 municipal councils.

4.1.3 The loan assistance is provided for 10 different road works including road improvement and the loan amounts range from Rs. 1.2 million to Rs. 100 million (US$ 33,000 to 2.8 million). Two loans are for water supply one of Rs. 1.5 million and one of Rs. 150 million which is for balance works of a BUDP project. A storm water drainage project of Rs. 5 million and procurement of equipment worth Rs. 1.1 million (US$ 42,000) and Rs. 0.07 million (US$ 2100) by two municipal councils is financed under the Fund. Four different loans are given for procurement of vehicles. So far, loans worth Rs. 320 million (US$ 9 million) have been sanctioned of which Rs. 220 million (US$ 6 million) assistance has been disbursed. Grants assistance of Rs. 12.9 million (US$ 0.4 million) has been

sanctioned and Rs. 4.6 million (US$ 0.13 million) released. The repayment performance so far has been extremely good with only one defaulting municipality.

4.1.4 The experience of operating the BUDP - Revolving Fund indicates that there are serious institutional problems with the local authorities in terms of effective use of institutional finance. These are :

a. The local authorities do not prepare 5-10 year capital investment programmes, but operate only on the basis of annual budgets. This leads to small ad hoc investments at the cost of long term needs.

b. Borrowing is not accepted as a method of funding municipal infrastructure and the tendency is to rely on Government grants or Government guaranteed loans.

c. The accounting practices adopted are archaic and the accounts maintained do not reflect the true picture of their financial status and particularly the debt servicing capacity.

d. The local authorities therefore need to be strengthened through technical assistance. Promotional measures through training and awareness programmes are also necessary in the initial stages.

At least in the initial stages this has been a supply driven operation where Rs. 320 million (US$ 9 million) has been sanctioned against Rs. 680 million (US$ 19 million) received in the fund. The BUDP-RF experience has proved very useful in MMRDA's further financing operations.

4.2 Reserve Fund

4.2.1 MMRDA has generated substantial financial resources through sale of land developed in the Bandra-Kurla Complex. The total resources presently available amount to over Rs. 17,000 million (US$ 472 million). A part of these resources (Rs. 2,150 million or US$ 60 million) were set aside in a Reserve Fund which was created in 1992. The interest earned on the corpus of the fund is being used mainly for financing inter city road network improvements carried out by State Government as interest free loans. So far Rs. 580 million (US$ 16 million) of loan assistance has been given to PWD.

4.3 Financing Role of MMRDA

4.3.1 Mumbai can act as a focal point in India in the process of globalisation of the economy. However, inadequate urban infrastructure and inefficient delivery of services are seen as the major problems in the process. Moreover, the Government of India has initiated the process of democratic decentralisation by recognising the urban local authorities as the third tier of government through the Constitution (Seventy Fourth) Amendment Act, 1992. The Act makes the local governments responsible for provision of urban infrastructure and physical and socio-economic planning and development of their areas. A regional level

development authority like the MMRDA can therefore facilitate the local authorities in infrastructure development. MMRDA can finance infrastructure projects from the large financial resources available at its disposal and also provide technical assistance to local authorities for planning and management of projects based on the expertise developed through past experiences.

Financing Large Infrastructure Projects

4.3.2 Financing infrastructure is currently faced with the problem of high interest rates. The prime lending rate (PLR) of banks and leading financial institutions till recently was 17% which has now been reduced to 14.5%. However long term finance required for infrastructure is not usually available from these organisations. Infrastructure financing agencies like HUDCO raise their funds in the market and with their lending spread the interest rate charged by them is 17% to 19%. This also leads to higher interest cost during the period of construction for projects with long gestation period. The MMRDA has however obtained its resources through sale proceeds of land. This allows MMRDA to charge moderate interest rates in financing such projects. MMRDA is currently financing the following projects:

4.3.3 Water Supply to Vasai-Virar Sub-Region

The Vasai-Virar area situated in the northern part of MMR is connected by the mass transit corridor of Western Railway and is relatively closer to Mumbai as compared to other urbanising areas in terms of distance and travel time. As a result, this area witnessed tremendous growth in urban population which increased by 58% from 0.26 million in 1981 to 0.42 million in 1991. The population is expected to grow to 1.3 million by 2011. This area is however facing acute shortage of drinking water as the water available through the existing source is only 9 mld. The population presently depends on ground water and this source is depleting fast. No sufficiently large surface water source is available nearby which could be developed and used. A scheme had to be therefore prepared to bring 100 mld water in the first phase from a source located 35 km away from this area. The cost of the scheme prepared, which included treatment, transmission and distribution, therefore turned out to be very high i.e. Rs. 2,000 million (US$ 56 million). The standard financing pattern of the Government for water supply schemes meant that about 40% of this amount had to be raised as loan the remaining being largely Government grant. This resulted in water rates to be charged to consumers being 6 times the rates charged in nearby urban areas. The scheme had to be therefore either financed fully by Government grant or some way out had to be explored to reduce the burden on consumers. Government grant of this magnitude was however not likely to be available.

The MMRDA proposed to break up the scheme, and thus the cost, into two parts; one consisting of intake, treatment and transmission of water upto the area, the second being distribution of the water in the area as the need for water develops. The first part in this case is crucial and treated water thus brought could even be distributed by tankers (as is presently done for ground water) till the distribution network is developed. MMRDA is financing the first part of making available bulk treated water in the area on Build, Own,

Lease and Transfer (BOLT) basis. These works costing Rs. 1,000 million (US$ 28 million) will be owned by MMRDA and leased to CIDCO, which is a Special Planning Authority for this area, for a 30 year period. CIDCO in turn will sell water to consumers and recover charges. The assets will be transferred to CIDCO after the cost is fully recovered by MMRDA at the rate of return of 9% through lease rent. CIDCO will develop the internal transmission and distribution network in due course. Strategic unbundling of the scheme into bulk water supply and distribution and the lower rate of return expected by MMRDA on its investment has made it possible to bring down by half the rate chargeable to the consumers.

MMRDA is also providing Rs. 190 million (US$ 5 million) loan to CIDCO for 20 MLD Usgaon-Tansa water supply scheme for the Vasai-Virar area which is likely to be completed soon.

4.3.4 Water Supply to Brihanmumbai

Brihanmumbai Municipal Corporation (BMC) has been financing its capital investments in water supply with the financial assistance of the World Bank. The BMC has already completed two projects and the third project is under execution. The financial covenants stipulated by the Bank are consistently followed. This has resulted in BMC having a separate water supply and sewerage disposal (WSSD) budget, computerised financial models and the WSSD has tariff which is adequate to meet the past debt servicing requirements as well as generate internal resources sufficient to finance at least 40% of the project costs as required by the covenants. BMC will thus be able to raise and service further debt.

The World Bank credit for the Third Mumbai Water Supply and Sewerage Project (Mumbai - III) has closed on September 30, 1996. However time and cost over-runs have occurred on account of procedural delays involved in selection of contractors and award of work and delays in implementation. Works worth Rs. 2,710 million (US$ 75 million) of the project are yet to be completed. MMRDA is financing these balance works by providing 60% of the cost as loan with 12% rate of interest and 20 years repayment period.

Although WSSD's financial condition is comfortable to service the MMRDA loan the risk of delays persist which could lead to time and cost over-runs again. In view of this MMRDA has stipulated productivity linked conditions for its loan assistance. These include :

a. Reduction in the bid validity period to 90 days and time restriction on selection of contractors and award of work. If the time schedules are violated the loan assistance to such works will be reduced from 60% to 55%.

b. For ensuring timely implementation, commitment charge of 1% of the unutilised amount of credit earmarked for a particular year is levied by MMRDA.

MMRDA has also offered financial assistance to BMC for the feasibility study and execution of Mumbai-IIIA project costing Rs. 6,660 million (US$ 185 million).

4.4 Financial Intermediary for Urban Infrastructure Development

4.4.1 The draft revised Regional Plan for MMR, 1996-2011 has broadly estimated the urban infrastructure investment requirement to be in the range of Rs. 200,000 million (US$ 5,600 million) in the next 15 years based on the projects conceived by various agencies for MMR. Financial resources of this magnitude cannot however be mobilised only through public sources. Attracting direct private investment or tapping capital market is therefore necessary.

4.4.2 Direct private investment in urban infrastructure is however difficult on account of the following :

a. It is difficult to projectise individual infrastructure investment in the form of separately identifiable cost and revenue streams obtainable from beneficiaries in the form of user fees for certain types of services like storm water drainage.

b. In case of services such as local road network and street lighting, it is not possible to limit the use of these services by some who could be charged for its use due to non-exclusive nature of such services.

c. Basic services such as water supply and sanitation are closely linked to public health and safety. Non-provision of these services to certain sections can affect the entire population. Subsidies are required for making these services affordable to the urban poor.

In case of water supply, the situation could become even more difficult if the water source is away (which is mostly the case) and industrial consumption is not sufficient to cross-subsidise the domestic use. The environmental mitigation measures and resettlement and rehabilitation of project affected persons required to be undertaken for execution of infrastructure projects can further increase the cost.

4.4.3 Borrowing is nevertheless important for financing local urban infrastructure since large indivisible capital investments are required to be made in a relatively short period of time, the benefits of which are however derived over a long period. In the absence of borrowing it would imply that today's generation pays for the benefit of future generations. Inter-generation equity can be achieved through the repayment of borrowed funds over a longer duration.

4.4.4 The local authority can raise resources required for infrastructure investment in the capital market. It will be possible for the agency to tap the capital market for individual projects (like revenue bonds in the US) only in case of commercially viable projects. Commercial viability would mean that the public agency generates income from its investment in the project which is sufficient to give a rate of return to the investor which is competitive in terms of both risk and return as compared to other avenues of investment available to the investor. Projects such as construction of market complexes which involve development of land in prime locations can become commercially viable. Most types of urban

infrastructure are however not commercially viable. The local authority will have to therefore raise resources in the market on the basis of their overall credit-worthiness It is thus the general obligation bonds, which are backed by the full faith and financial resources of the issuing agency, would be more suitable for financing urban infrastructure investments.

4.4.5 However, at present, individual local authorities may not be in a position to access the capital market through such bonds. The MMRDA, therefore, along with Govt. of India, Govt. of Maharashtra and the financial institutions viz. HDFC, ICICI and IL&FS is setting up a financial intermediary for urban infrastructure development in Maharashtra. The Intermediary will have an initial corpus of Rs. 1,500 million (US$ 42 million) and will be in the form of a Trust Fund to be managed by an Asset Management Company (AMC). 51% of the corpus and the equity of the AMC will be contributed by the financial institutions. Of the remaining, the share of MMRDA will be 39% and that of GOI and GOM will be 5% each. A chart showing the institutional arrangement is enclosed.

4.4.6 The intermediary will facilitate creditworthy local authorities and parastatals to access the capital market for generating financial resources for urban infrastructure investment. Infrastructure projects related to water supply, sanitation, solid waste management, storm water drainage, transport, hospitals and commercially viable projects such as land development or land redevelopment through comprehensive urban renewal will be financed. The intermediary will make efforts to strengthen the administration and management of borrowing agencies in order to make them more creditworthy. The World Bank has shown its preference to support such an intermediary rather than financing individual infrastructure projects directly.

5.0 Conclusion

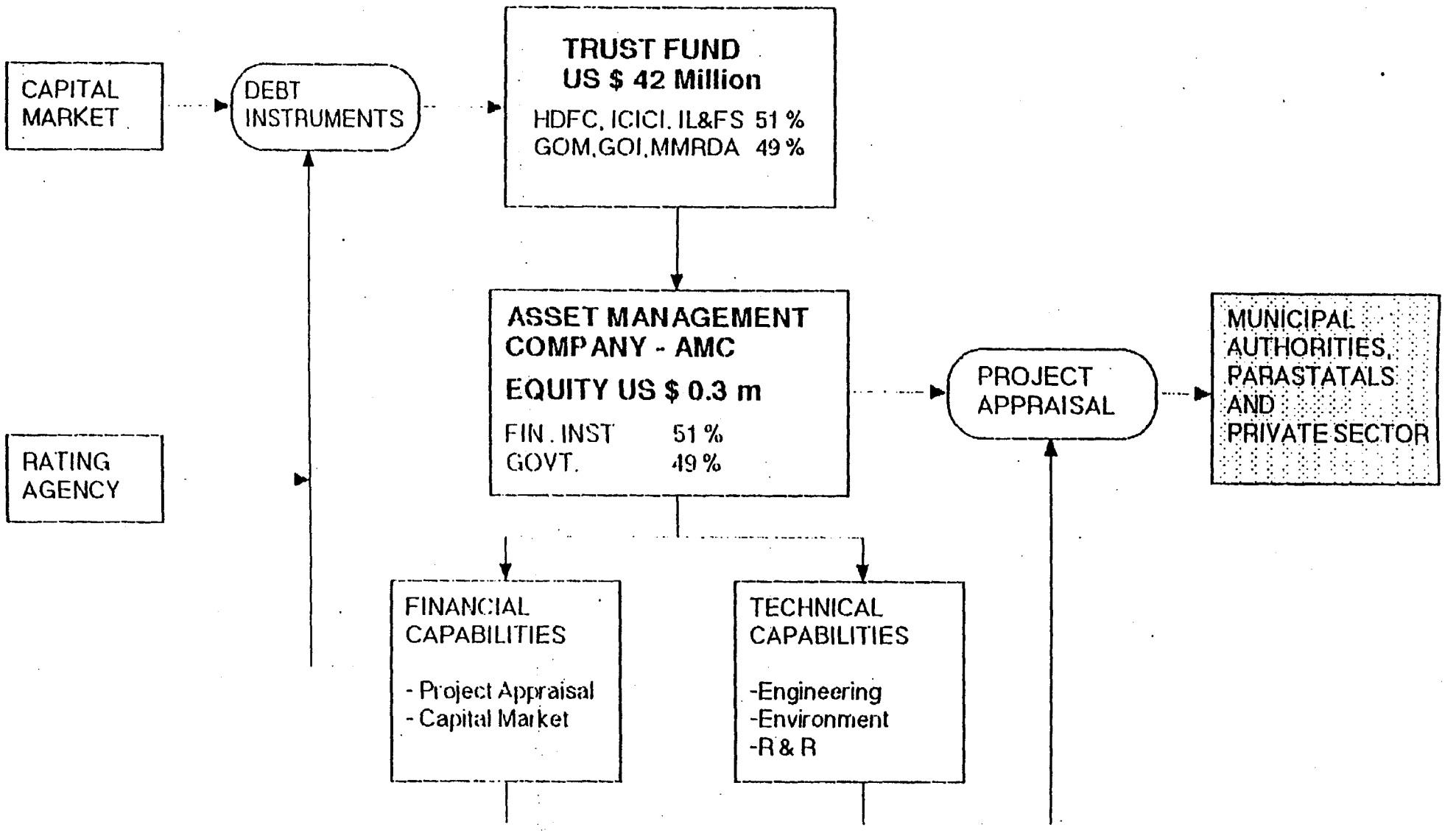
5.1 MMRDA's experience shows that it is possible for a public agency to generate substantial financial resources through small but strategically located land development projects. This needs to be noted against the experience of large scale land acquisition and development by public agencies. The resources thus generated could be used as leverage to raise debt finance for financing infrastructure in much wider area.

5.2 Despite persistent large gaps in infrastructure needs and supply, the planned demand for funds for infrastructure investment does not exist on account of the institutional problems at the local level. While supply side intervention in the form of making credit available for infrastructure investment is required, equaly or even more important are the efforts that are required in strengthening the local authorities to create effective demand for credit. The institutional strengthening would involve :

a. improving the accounting systems of the local authorities,
b. training for preparation of capital investment programmes which could be extended into more elaborate finance and operations models for carrying out investment programming on a continuous basis,

c. encouraging local authorities to resort to private consultants' services for formulating projects and developing various systems including information system; and

d. bringing about efficiency in revenue collection and operation and maintenence of infrastructure.

The financial intermediary will therefore have to pay equal attention to supply and demand side of infrastructure investment.

FINANCIAL INTERMEDIARY FOR URBAN INFRASTRUCTURE DEVELOPMENT IN MAHARASHTRA