Modalities of a Public Private Partnership
In implementation of Delhi's Mass Rapid Transit System

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Abstract
Public agencies' inadequacy in provision of infrastructure support for urban development hardly needs any reiteration, nor does the fact that infrastructure provision, particularly in the context of a city with per-capita income as that of Delhi, would remain (and *should* remain) largely a public service.

This dichotomy essentially then points to a partnership option where the public bodies look for a partner in the non government sector for supplementing its resources. For making the partnership happen there are two basic questions that need to be answered

1. *Why* the partnership or *what would bring the private sector and the public sector together* ?

The answer could be found if we were to see the service unbundled. It is seen that the main tasks involved in providing the MRTS are preparation of Technical Design, Construction of the facilities and Operating & Maintaining the facilities. Of these it is only the *construction* that requires private sector inputs, the others can be managed by the Delhi Merto Rail Corporation. The approach needed would essentially have to be one which is able to identify a common goal or, in other words, bring in a common vision so that all sides "own" the project. **This goal convergence could be the integration of transport with land development. DDA and private sector developers/builders could be involved in the process of real estate development, to overcome the government's inability to mobilise public sector funds for the project.**

2. *How* the partnership?

For construction of MRTS facilities and property development, a joint development approach through a "Special Project Vehicle" (SPV) is proposed. The partners in the joint venture would be under a legal contract. The advantage of this organisational structure would be commitment of resources by all sides and allocation of risks to those partners who are in better position to handle them .

The Plan Development Process discussed here suggests a new approach to planning itself. Working in a Public-Private-Partnership or PPP, means a new kind relationship between the private and public agencies which is quite at variance with their more traditional manner of dealing with each other. The new concept demands from the partners, a number of adjustments in the manner in which they operate, so that a comfortable and meaningful association can be established. For the union & Delhi governments and DDA, this would mean a major change in skills and knowledge needed, but before that, and more important than that, a change in attitude. Liberalisation and private sector participation can not take place in institutional vacuum. Organisations, laws, rules and regulations are necessary to be modified for the public agencies to respond effectively to their changed role from that of direct provision to that of management; to avoid misuse and for the public agencies to be able to monitor the results afterwards.

Contents

Foreword

This paper is intended to highlight some issues (rather than making any final recommendations) pertaining to mobilisation of resources required for implementing the Delhi MRTS through property development. While arguing the case for a PPP in the paper, certain assumptions have been made about the stake holders' interests and capacities, which while reflecting by and large, the real situation, need more substantiating. In that sense, I see this paper, as *a starting point* for exploring the possibility suggested in the paper, and *not a concluding statement*.

The paper is based on my experiences, of the situation, while working on the Delhi MRTS as part of the design team in Rail India Technical & Economic Services Ltd (RITES), the consultants working for the feasibility study and later as Urban Planning Expert in the General Consultants team currently employed by Delhi Metro Rail Corporation (DMRC). This paper therefore, must be seen from that perspective.

And finally, the views expressed in this paper are entirely my own and not necessarily those of RITES, General consultants or DMRC.

Sushil Verma

Introduction

In the fall of 1989, Delhi Administration commissioned a study to explore the feasibility of a rail based mass transit system for Delhi. The terms of reference for the consultants, Rail India Technical and Economic Services Ltd. (RITES) were to examine the technical and financial viability of the proposal.

Background of the Study

Since the nineteen sixties, the city of Delhi has witnessed an unprecedented urban growth. The population of the city grew from 2.36 million in 1961, to 5.73 million in 1981 and studies revealed that the trend was only to go on[1]. This phenomenal growth has been partly due to the natural growth of the population. But like most urban centers, a large part of this can be attributed to migration of the people who come to Delhi from smaller cities and the rural hinterland, in search of better economic opportunities and get settled in the city. For the metropolis, this means an increased pressure on its already stressed infrastructure, including the transportation network. The situation is not made any easier by the large floating population, which comes to Delhi from the neighboring towns and cities to work everyday.

Recognising this problem being faced by the metropolitan Delhi, and the need to take immediate action to ameliorate the situation, the National Capital Region Planning Board (NCRPB) was constituted under the NCR planning board act, 1985, nearly 25 years after the concept was first introduced. The NCR extends over a geographical area of about 30,000-sq. km. covering the national capital territory of Delhi and spreading over 3 adjoining states. A number of studies were commissioned by the board, with the objective of identifying strategies for reducing the rate of migration to the metropolis in order to affect a balanced urban growth in the region in pursuance of the objectives it was set up to meet.

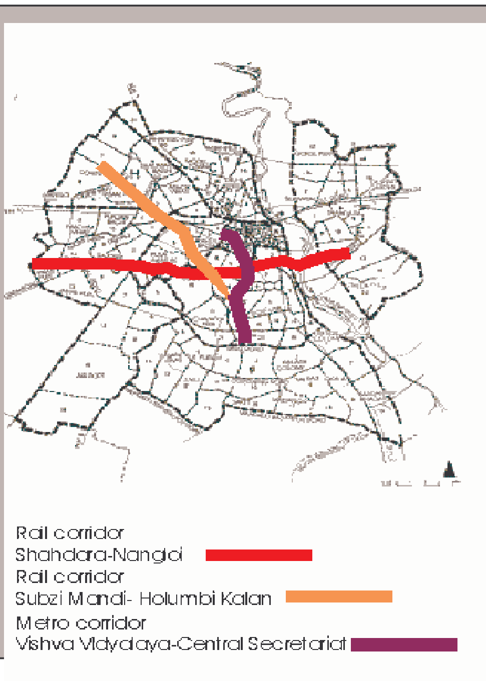
One of the proposals made in these studies was to develop an efficient transport network within the NCR and link it to a mass transit system in the city of Delhi. Improved mobility within the region was expected to shift the preference, of those living in the smaller cities and towns around Delhi, in favour of daily commuting over migrating there. It was against this background that the present proposal for a Mass Rapid Transport System (MRTS) for Delhi was conceived in the year 1989. Responsibility for implementing the Delhi MRTS was given to the Delhi Administration.

Feasibility Study for Delhi MRTS

Consequently, Delhi Administration decided to study the feasibility of the proposal and appointed RITES as consultant for this job. A working group was constituted to monitor the progress made by the consultants, as also to solicit the approval of the concerned public agencies. The group comprised representatives of the Delhi Administration, the Delhi Development Authority (DDA), Municipal Corporation of Delhi (MCD), Delhi Traffic Police, Fire Service, Indian Railways and the School of Planning and Architecture (SPA) among others. The Secretary, Ministry of Urban Development (MOUD) headed the working group.

RITES has been working on the feasibility study since, and has prepared a technical proposal[fig 1], which envisages, in a phased manner, a combination of underground, at-grade and elevated rail alignments. In the most congested parts of the city, where, there is no land available, the underground or elevated option has been chosen, whereas in the relatively lesser built up areas, the at-grade option has been exercised essentially in response to the cost constraints of the other options.

Figure 1
Modified First phase,
Delhi MRTS



To integrate this network with other modes of transport, at each MRTS station, adequate facilities for *park and ride* are provided. Station area plans have developed to encourage the use of public transport to further reinforce the concept behind the proposal.

The consultants estimate that the project would cost US $ 2 billion, at 1992 prices. Proposed financing plan suggests about 6 % of this to be raised through property development.

This paper is aimed at highlighting some issues related to property development for financing transport infrastructure, draws attention towards certain ‘must dos’ for making a partnership possible among the various public agencies and the private sector in meeting this objective and at highlighting some of the issues that would need to be addressed while structuring this partnership.

Question *Why* would there be partnerships?

Answer Integrated land and infrastructure Development.

1

The first question is that why would there be partnerships?
The answer lies in integrating land and infrastructure development.

DMRC is proposing to develop station and depot sites for commercial exploitation. The proposed developments above the MRTS facilities are expected to raise funds to meet approximately 6% of the total estimated cost of the project.

While the station locations would be commercially attractive sites, the potential of the adjoining areas should not be overlooked. In fact it is possible that in certain locations, It is the property not immediately next to the stations, but a little far, say half a Km, becomes commercially more attractive due to the improved accessibility of these sites.

Integrated land and infrastructure development

Introduction of a high speed, high capacity transport system, would automatically, result in increased demand for commercial and certain kind of residential properties along the route, particularly in the areas in the immediate vicinity of the stations, thereby boosting the land values in these areas and triggering off building activity in the area. Real estate development will boom benefiting builders and developers in both formal and informal sector. It would be therefore relevant to look for ways and means of internalising these benefits into the project and planning to exploit the increased property demand on a larger area rather than seeing property development over the station areas and MRTS facilities only as sources of revenue generation. Since the benefits of improved accessibility would not be limited to a small area but would be spread over a larger area, looking at MRTS project as an integrated land and infrastructure development would be the right perspective.

This would mean that the land development agency i.e. the DDA has to have a more direct role in the project than is being seen at present. Since land development is not the main activity of DMRC, nor is it its mandate, a partnership between DDA and DMRC is the first coming together of stakeholders, we are looking for. DDA and DMRC have to come together so that the benefits of the project are reaped by the government agencies, instead of letting the "free riders" cash on the opportunity. The government should take a proactive stand and become a partner in the scheme by planning in advance, exactly what the private sector would otherwise do after the project.

While the benefit to DMRC would be that it would gain from the experience of land development and the statutory powers of its partner, the benefits to DDA would be both short term as well as long term. To begin with, DDA could capitalise on this increased demand through levying fees on the conversion of land use (from non-commercial to commercial) or through allowing higher FARs, as may be desirable in a particular case. As a policy DDA could think less about rigid building regulations, such as FARs, coverages, height restrictions etc, and more in terms of what it benefits it can leverage out of the developers, by discreetly relaxing some of these rules, as was done in the Brisbane, Southbank development project, Australia. Here the real estate developer was allowed to build extra floors if he provided facilities for parking and a public plaza in return. This practice is commonly used in that country to build public facilities. In a situation where DDA is not able to control the semi-legal or completely ill legal activities of the builders and developers, this strategy might come in useful. Depending on how much deviation, a developer wants, from the norms, the public agencies could negotiate facilities that they are interested in having as a return gift!

In the event of DDA or other public agencies themselves being the owner of the properties, redevelopment could be a big opportunity, which it could cash in on. Higher densities and greater commercial land use along this high capacity transport corridor is fully logical as this would optimise the cost benefits of the project, and review of land use and relaxing of building regulations is, therefore, justified. Though, the corridor is planned to serve congested parts of the city, further densification (within discretely decided limits, naturally) around the stations, stands to reason.

Internalising the Positive Externalities

Enhanced land values and increased demand for commercial space around the stations, thus are the positive externalities of the project that could be internalised to finance the system. The under/ unutilised properties/ lands belonging to the public agencies have high commercial potential, which could be tapped. The returns from these projects could then be (at least partly) diverted into building the MRTS facilities, since that is, in a way, the *raison d'être* for these developments.

In the long term, DDA’s perspective plan and MRTS extensions can be planned in co-ordination. The extensions of the network that would be taken up in the future could well be planned with DDA's land value concern in mind. In fact, these extensions could be very effectively used as tool for guiding the land markets in the new areas that the DDA plans to develop.

Case of Singapore

The case of extension of Singapore CBD is a good example of this possibility, where, due to shortage of land in the CBD, a land reclamation project was proposed, but was found, upon making feasibility studies, to be prohibitively expensive. However, it was realised that, if the existing mass transit system was to be extended to this new proposed area, the land prices would be such that the sale proceeds would be able to pay not just for reclamation but also the extension of the transport network.

The case of Mass Rapid Transit Project, Hong Kong

The project was financed through development of commercial property along the rail alignment. The land which belonged to the government was leased to the Metro corporation, at market price, (for an indefinite period of time), who then developed it in collaboration with private real estate developers. The Metro Corporation is a limited company, with the government of Hong Kong as the sole share holder. Property development along the route was used to finance the system. Government land and other law making powers were applied as public equity while striking deals with the private sector.

So, If the MRTS project is then redefined as the integrated property/ transport development project, and redevelopment of under-utilised properties is made an integral part of the project, it could change entirely, the view of the key actors and bring together their resources, which when pooled could "make" the project.

Question ***How* would the partnership operate?** 2

Answer **Special Project Vehicle, Joint Development of Ideas**

Goal convergence of the different actors involved can thus be realised by redefining the scope of work of the project to include land and property development along the MRTS. In other words, property development along the proposed alignment should be integrated with the development of the mass transport network in a way that the profits from the sale proceeds of these properties could be used to finance the system. (Depending on the primacy of the land, the two could happen together, at the same time, possibly in a single structure subject to site conditions and architectural and structural concerns or, in separate phases, with the property development following the transport facilities)

Structure of the Partnership

The next question, then, is how, in what manner, could this partnership be structured? Or, what institutional form this coming together of the stakeholders, could take? The answer lies in addressing issues concerning resource, return and risk sharing among the partners, or the role related issues, as well as those concerning the manner and extent the actors like their own involvement and that of the other actors or in other words issues related to their mandates. Important it is for the government to determine how much of their investment and profits is it willing to share with the private sector.

The investments required in this task are a technical design of the MRTS and land, which the public agencies have, and the financial resources to build the facilities for MRTS that can be the private sector input. The public agencies also could contribute in "sweat" equity (which could mean statutory powers or the time spent by the public servants). A resource contribution in kind is as important as an up front investment per se. Although it is only the latter that is usually considered to be determining financial feasibility, contributions, which enable project implementation, are no less important. It is logical then, that the Government should apply its statutory powers and other intangibles (which in the case of the DDA, happen to be the building bye-laws) as its share in the partnership with the private sector. This in principle could be the partnership arrangement between the public and private sector.

"Special Project Vehicle" (SPV)

From the point of view of potential investors, the main risks involved relate to project completion, markets and supply of inputs. The objective should be to allocate risks to those partners who are in the best position to control the particular risk factor. *Sharing, not only, of the resources and returns, but also risks is essential for the satisfactory functioning of a PPP.*(Sinha). Other issues such as the legal status of the partnership, balance of power among the partners and conflict diffusing mechanisms could be satisfactorily addressed, if the Public Private Partnership took the form of a Joint Venture.

Building of stations and other MRTS facilities along with the redevelopment of properties is proposed to be taken up jointly by the public and private agencies though a statutorily created "special project vehicle" (SPV). The SPV would comprise all stakeholders who believe in the project. All partners pool in their resources, monitory as well as non-monitory. They work out, jointly, a project proposal (capital investment, debt servicing, cost estimates, cost recovery strategy fully or partly through property development). Additional funds required might be raised through loans, and after the project takes off and the public confidence in it is established, capital markets could be approached.

The SPV would need to inventorise its "assets" such as the redevelopable properties and financial commitment of the parties. Next it would have to list out it's "liabilities" i.e. space needed to accommodate the functions presently housed in the properties as well as the functions for which unutilised land is held by, say the Railway; and the costs that might be incurred to re-house people and activities that need to be moved for considerations of optimal land use, as a starting point in the property development strategy.

The property development details will have to be such that the returns from them are sufficiently higher than the costs (capital cost + debt servicing + O&M Corpus) to allow a reasonable return to the participating agencies, and to the shareholders when there is a public issue. Depending on the primacy of the location of the property development sites along the metro alignment, this may be viable as it is. Alternatively, or in addition, the SPV could negotiate certain project advantages. For instance, in Delhi there is no policy for redevelopment of unutilised or under- utilised land. Real estate developers are working in semi-legal manner. The SPV could capitalise on this by providing opportunity for legal activity by builders, If it can ensure strict control on illegal activity elsewhere for the duration of the project, it can effectively increase the competition and, thereby the price on development rights.

A joint sector venture will address the most important issue that either side is much concerned with, that relating to the risks regarding supply of inputs (in this case the commitment of the resources), markets and completion. Advantage of a contract of intent would be for both sides. The public sector would, by this process secure the financial commitment of the private sector, which would be crucial for completion of the project particularly in case the real estate markets fluctuate. Secondly, since the actual construction would take place a few years from the time of the initial agreement, covering the market risk is also extremely important for the public sector, particularly since it has not much experience of markets behavior. A joint sector venture could be used for allocation of this risk to the private sector that knows very well how to control this risk factor.

For the private sector on the other hand, this would mean covering the political risks and ensuring that the government would continue to support the project, and the changes in the political environment would not make the PPP fall apart. This security will help the private sector, plan and mobilise its resources, in a better way,

Partners in the SPV

Essentially, those who would "own" the project are

- Delhi Metro Rail Corporation
- Delhi Development Authority
- Private Sector Builders and Developers

Sharing Resources, Returns and Risks

Role Partners	Resource	Returns	Risks
✓ Delhi Metro Rail Corporation	✓ Land ✓ Matching grants ✓ Enabling legislation	✓ MRTS facilities ✓ O&M corpus ✓ Fulfillment of NCR objectives	✓ Financial ✓ Market
✓ Delhi Development Authority	✓ Land ✓ Reforms in Development Norms ✓ Opportunities to builders, end users	✓ Saleable properties ✓ Enhanced land values ✓ Fees/levies for land use changes/ added FARs ✓ Opportunity for integrated land development	✓ Financial ✓ Market
✓ Private Sector Developers	✓ Finances ✓ Market understanding ✓ Management	✓ Saleable properties ✓ advertisement rights ✓ Increased opportunities ✓ Goodwill of public agencies	✓ Statutory support ✓ Political commitment

Plan Development Process

PPPs are an important tool for handling the different dynamics of those urban development projects which feature the goal convergence and interdependence of the public and private agencies and *experience has shown that common goal is recognised as such if public and private sector seek contact in the first phase of the project identification, before either side has formulated it's own approach.* (Paul H.L. KLOPPENBORG)

Platform for Joint Development of Ideas

The first step in the process, therefore is the joint development of ideas. The parties involved in the MRTS, differ not only in the resources and instruments but also in objectives, the government focusing on the transportation problem, the DDA concerned with land use and land markets, the developers looking at their specific business interests. Identifying the interested and affected parties and establishing a platform for these parties to come together is essential. This has been achieved, already to a large extent, through the formation of the MRTS steering committee and the working group, both of which comprise the different public agencies that would be interested and/ or affected. The private sector builders and developers did not find a place in these groups primarily, because at the beginning of the exercise, as said earlier, the project was perceived as entirely a public responsibility. The main function of this platform is for all parties to know each other’s intentions, know 'why' they are interested, 'what' is their perception of the project and 'what' would they be willing to put in it. This kind of a thorough stake holder analysis is often skipped and shortcuts to knowing 'how' the objectives are to be achieved. It is important, therefore, now to start a dialogue with this group and establish a base for its' participation in the next stage of the joint decision making that is the contract of intent.

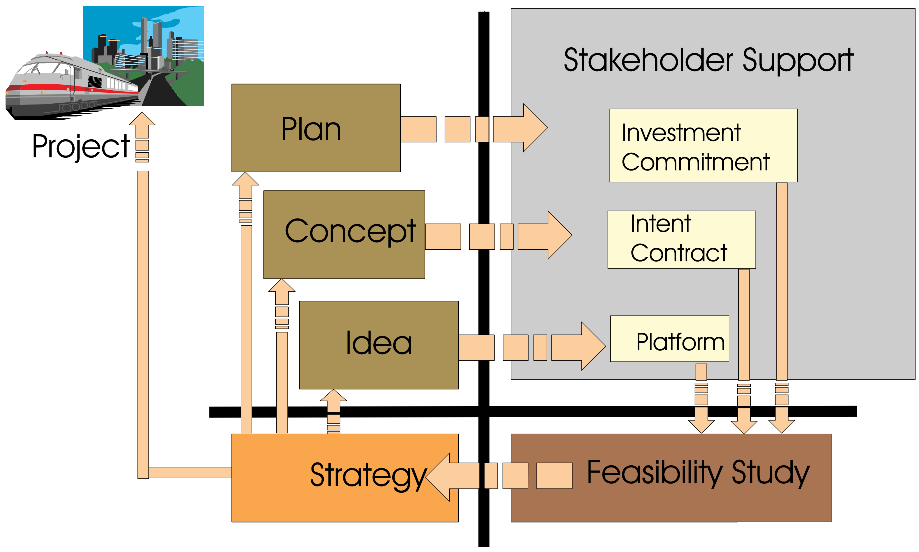
Contract of Intent, Investment Commitment

The steering committee and the working groups have met and discussed the ideas and plans developed by the consultants and, based on the feasibility study made, a strategy, which visualises the concept of property development as a way to finance the building the system, has been agreed by the group. As said earlier, the public agencies' liquidity position does not permit them to come up with the investment on their own and therefore the involvement of the private developers is necessary. This however needs to be agreed upon with them in advance of going ahead with the plans. And so the contract of intent (which is an agreement between the developers and the government on the general modus operandi rather than a specific project contract). Depending upon the intentions indicated by the developers and regarding this as a direction, the SPV could go ahead and draw up detailed plans and work out capital investment details.

Directional Feasibility

What is proposed here is a significant departure from the conventional approach adopted by public agencies. It is important not to start with a final plan and then start looking for funds. The development of the plan should rather be based upon the existing and future funding possibilities, which may consist both of monetary outlays and contributions in kind or the non-monetary outlays in the form of public law, sweat equity etc. A feasibility assessment should therefore be reviewed with regard to the stake holders analysis of objectives, benefits and resources and should include a survey of the funding possibilities. This directional feasibility would help identify a plan which has a better chance of succeeding since it is has the support of the key actors. In the case of Brabantse Poort, Nijmegen, this contract of intent was signed and was found to be a good instrument for ensuring the financial commitment of the investors, whereas in the case of Kop Van Zuid, Rotterdam only an informal agreement was made with the investors and it is reported that the investments are not coming forth as anticipated. The local and national governments have put in a lot of money, in infrastructure, as their part of the investment, it is feared that if the private parties do not put in their share of the investment, the money spent by the governments would be a sheer waste.

Figure 4. The Planning Process



As the figure suggests, stake holders' support in decision making should be considered crucial by the project implementing agencies (in this case the, the government) to avoid unpleasant surprises at the time of project implementation, since this is an important link in the process.

So what do we need to do next ? 3

The Plan Development Process discussed in the previous chapter suggests a new approach to planning itself. Working in a Public-Private-Partnership or PPP means a new kind relationship between the private and public agencies (also among various public agencies themselves), which is quite at variance with their more traditional manner of dealing with each other. The new concept, as the name partnership, itself suggests, is built upon interdependence and mutual benefits. And, like any other business partnership, these PPPs, also demand, from the partners, a number of adjustments in the manner in which they operate, so that a meaningful association can be established. For the DMRC, DDA and the private sector, this would mean a major change in skills and knowledge needed, but before that, and more important than that, a change in attitude or the mind set.

Need for Co-operation

All the actors in urban development need to realise that they are not competing with each other. Instead, together they are in competition with other cities in the region, specially in the new, liberalised economy, and the city level agencies being evermore responsible for managing their own affairs independent of central support. If the local agencies do not recognise this they may be left behind by other cities in the region. A good example of this phenomenon is the city of Madras loosing out it's regional prominence to Bangalore, which is increasingly been seen as a major investment centre by both domestic and foreign investors because of the environment that enables private enterprise. This could be of particular significance to DDA, although for more than one reason, there is little threat to Delhi's position in the region, many enterprises are likely to start looking for better opportunities outside, in the neighboring states (the trend is already started, with Delhi builders expanding their activities in the state of Haryana in the south of Delhi), if the city authorities do not present a more forward looking image. In coming forward with creative solutions to involve the private sector investors such as relaxing regulations for leveraging project advantages, the DDA, in fact, would be able to secure benefits that might not be there at all, in some cases, without the partnership.

Reviewing rules and regulations

Policy of inviting private sector in urban development has to be complemented with enabling environment. Without such a support, the private sector could hardly be expected to participate in projects that are in any case perceived as unprofitable. Easing of approval procedures and single window clearances should therefore be adopted by the DDA.

Strategic Plan beyond 2001

The DDA's currant master plan for Delhi expires in the year 2001. For DDA it would be worthwhile to keep in mind the benefits of integrating it's future land development with expansion plans of the MRTS. DDA may find it useful to make the new plans less prescriptive in nature (and therefore less rigid) and more performance oriented, which would lend themselves to being modified/ adjusted as and when needed, in response to ever-changing demands of the city. The flexibility of the new Master Plan will allow the planners to exercise strategic options that would meet the challenges of the changed reality and make planning more meaningful.

Enlisting Support of Key Actors

Given the global changes in the planning environment, any planning approach that does not involves the key actors and stakeholders in the process, does not inspire many hopes. On the other hand a participatory planning approach maximises the potential of the key actors, even when unable to enlist their full co-operation, it would still be able to indicate to the planning team the possible hurdles in the execution process. *Support and involvement of the key actors is particularly important in this context since the DMRC has to depend heavily on DDA and Private developers to realise its concept and it is not in complete control of what is happening*. For the DMRC, coming to terms with this fact would be a precondition to forging any PPP arrangement.

Information Systems

Public information campaigns are necessary to make known to the public and potential investors, the plans of the government agencies. A very business like approach, here, is needed of the DMRC. In the case of the Kop Van Zuid, for instance, a separate information centre has been set up, where comprehensive information is available to all prospective investors, in a variety of mediums such as audio-visual shows, three dimensional models, CD ROM, maps, drawings, brochures. The project has been given an identity of it's own by uniformalising the colour schemes (which is practically like a flag of the project) for all the publicity material. For the DMRC, more effective information campaign would mean better access to private sector finance and the increased confidence of this sector. More information means higher transparency, which in turn would mean higher investor confidence and so the DMRC should be willing to share and disseminate more information.

Working with Communities

A large number of people and properties are going to be affected while constructing the MRTS facilities, for various purposes. In order to get the co-operation of these communities, effective skills in community mobilisation would be necessary for the Metro Corporation and DDA. A relocaton policy would need to be formulated for which lessons may be drawn from similer project, being carried out in Bombay.

Restructuring Organisations

The union government needs to keep in mind, while considering the project and it's implementation that organisations, laws, rules and regulations are necessary to be modified for the Delhi Government to respond effectively to it's unorthodox role in the MRTS project, that of management instead of direct service provision, in order to avoid misuse and for it to be able to monitor the results afterwards, ultimate responsibility for which remains with it. Creation of the Metro Corporation has been a step in this direction, advantages of which would be many and varied. Within the Metro Corporation, structuring in the form of Inter-disciplinary project teams or task forces comprising individuals from various fields of specialisation, working together on smaller and manageable sections of the project, having clear responsibility and accountability might prove to be useful.

Training Requirements of the Government staff

Apart from organisational changes, working in partnerships with other organisations and communities would demand the staff of the DDA and DMRC to display certain different kinds of skills, such that they have not needed in the past. Essentially the DMRC staff would now be required to "manage" rather than "do" thing, which means they must gear themselves with

- Ability to work in inter-disciplinary teams,
- Understanding of financial matters to ensure proper cash flows, debt servicing.
- Adequate capacity for efficient use of mobilised resources and
- Skills to negotiate satisfactory arrangements with the private sector
- Contract and construction management skills
- Communication skills,

Image Building

The market image of the public agencies involved, is that of financially and managerially weak organisations. For the government to attract private sector investments, it's image has to be improved. Reforms in the management practices and accountability through greater transparency in the public sector are necessary.

Implications for the Private Sector

The same applies to the private sector builders and developers. Their vision of their own role in urban development needs to be seen differently. Private sector, like the public sector also suffers from bad image, that of being unconcerned with social and environment issues. Conscious efforts in this direction, particularly by the big names in the formal sector would be required. Like the government, these builders and real estate developers also need to think up of innovative ideas that they could use to attract the public agencies' sweat equity, the importance of which should not be undermined. Effective urban infrastructure is a prerequisite to economic growth, which must be a private sector concern as much as that of the public sector, and co-operation between the two, therefore, is hardly a matter of choice for either side[2].

References

Notes

1. The master plan of Delhi projected the population of the city to be 10 million by the year 2001. The 1991 census, however showed that this figure had already been reached, 10 years ahead of target
2. Though seemingly paradoxical, for any partners pursuing their own self interest, the incentives for co-operation would be higher than those for selfish behavior, under a variety of circumstances, even when the partners are apparently 'hostile' to each other.

   This is brought out very interestingly in the prisoners' dilemma in the games theory by Axlord. The story of the prisoners' dilemma is basically those two accomplices, arrested after a crime, are interrogated, separately. Both have two choices: to co-operate with the other or to defect. If one confesses (defects) and the other does not (co-operates), the former gets off free (high gain) but the later gets a high sentence (high loss). If both confess, they both get medium sentence (low gain) and if neither confesses, both get a short sentence (medium gain). Now, whereas it is in their individual interest to confess (because if they don't and the other does, they get a heavy sentence), it is in their combined interest not to do so,

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Interviews

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2. *Tripta Khurana*, Chief Architect, Delhi Metro Rail Corporation
3. *Jan Klerks*, reception, *City InformatieBank*, Lijnbaan, *Rotterdam.*
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Case studies

1. The case of Brabantse Poort, Nijmegen, The Netherlands

The Project

The national plan of 1990, VINEX, described Nijmegen as having internationally important location, and therefore an urban focal point in the region, because of good access to the other European nations. The municipality, consequently, decided to draw up plans for creation of a new mixed-use area within the city limits to the southwest of the city centre comprising office space, new residences, and a number of ancillary facilities. The city unemployment was substantial and the project was expected also to focus on the employment opportunities in the area by attracting business and industry.

Contrary to the then popular 'Business park" concept, of business districts located away from the city, the municipality deliberately planned this project within walking distance of the city 's public transportation system, to bring business back to the town. Its mixed land use was carefully considered to avoid emptying out of areas after work hours, in a bid to discourage criminality.

The area to be developed was on either side of an old link connecting the city the city to the east. This highway divided the site into two disjointed lots. Overcoming this problem through design solution was one of the objectives of the plan. 90 % of the land chosen was owned by the municipality and the rest by the national railway (NS) and the central government.

The plans of the local government were too ambitious for the funds that were actually available within the public sector. Changes in planning concepts in the country, particularly with regard to the role of the public sector in land development, led the municipality to consider the participation of private sector to make use of it's potential for financial resources and technical expertise.

The Process

The planning process that was adopted can be seen as made up of 4 distinct phases:

1. **Orientation phase**: At this stage the major framework for the project was analysed and the potential approach to the project was established. This was a joint exercise in which the potential partners were asked to contribute suggestions for the formulation of the framework of the project. The platform was also used as a means of preselection or pre qualification of the partners. The private sector parties were informed of the intentions of the government through brochures, individual contact with prominent builders, congresses, promotional campaigns etc.
2. **Setting Conditions**: The partners were chosen and the negotiations began. Discussions on major issues such as mutual goals, interests and the conditions of all parties took place. Options for financing were considered and the significance of financial commitment by all parties was established. Also included in the negotiations were issues pertaining to sharing of risks and responsibilities, which in turn helped in analysing the viability of the project.
3. **Start phase**: The third phase began with all the parties signing a "letter of intent" which was a contractual agreement, specifying the legal aspects of the relationship. The Form that the PPP assumed was that of a Limited Company because it was felt that this provided maximum legal and tax benefits to the partners and was also a very transparent organisation. The shareholders of this Limited Company were: 1) A consortium of two real estate developer firms (50% stock holding), 2) The National Investment Bank (40%) and 3) The Local Government (10% stock holding)
4. **Development Phase**: This was the actual construction phase in which the plan was realised. Involvement of the private sector investors at a very stage was seen by the government as a tool to avoid disagreements and discords at a later stage of the project. The platform in phase 1 was used very much to sort out the difference of opinion between the various parties with mutually contradictory objectives. The legal form given to the agreement helped all parties to be sure of the other side's commitment and accordingly deploy their own resources. This led to reduction of risks pertaining to inputs and project completion for all partners.

The municipality, however, feels that involvement of a larger number of private sector partners would have given them options of choosing different parties for different kinds of project components and, better negotiation position.

Relevance for Delhi MRTS

- ✓ Contractual commitment of the key actors led to successful completion of the project because the flow of financial inputs from the private sector was ensured.
- ✓ While considering the institutional form for the PPP, legal and tax related issues need careful study. A transparent structure like a limited company, in which all the partners are treated equally by the tax and other laws, would be most acceptable by all parties.

- ✓ The private sector was represented in the PPP by a consortium of two real estate development companies. All the building were constructed by these builders. The government later felt that involving different private sector builders for different activities, would have, although meant more work for it in terms of drawing up more contracts and dealing with more organisations etc, but all the same time would have provided better quality of product due to opportunity of employing specialised services from the private sector and creating competition among the parties.

2. The case of *Kop van Zuid*, Rotterdam, The Netherlands

The project

The project comprises redevelopment of old harbour basins and quays on the south bank of the river Maas in Rotterdam in an effort to integrate the south and the north banks of the river as also to make place for the expansion of the city's CBD. Kop van Zuid project aims to reconcile objectives in the area of physical planning, traffic and transport, environment and economy as laid out in the fourth national physical plan of 1990, which perceives Rotterdam as urban node/economic cornerstone of the Netherlands. The project is expected to strengthen Rotterdam's internationally competitive location environment in the Randstad and establish some high-profile locations for offices and high-income/ high-quality residential areas. Kop van Zuid was, therefore, identified as 'key project' that should support the 'international allure' of Rotterdam. It is proposed to build, on 125 hectares of land, a high quality living/working/recreation area consisting of 5,300 housing units, 400,000 m2 office space, 35,000 m2 business space and 60,000 m2 recreation area..

The project is to be implemented in 3 phases and is estimated to cost US $ 2.5 billion of which US $ 0.8 billion will be invested by the public sector, which includes the cost of land, at market value. Contribution of the National Government is 60 % of the total public sector spending.

The government would provide main infrastructure which includes a new bridge over the river Maas, a new metro station on the existing line, roads and viaduct, and new buildings for govt. departments (Court of Justice, Tax office) which would cost US $ 300 million. Development of the building would be carried out by the private sector.

The Process

In 1986, plan for the area was made by famous Town Planning consultants, who saw a great potential for a 'multi-functional metropolitan development' because of the unique 'waterfront' location and the area being directly in front of city centre. The concept was tested in the late eighties by 3 feasibility studies. Following were the highlights of the plan:

- Public decisions on realising major infrastructure works would be a precondition for private sector action to develop the area (through agreements)
- A new bridge over the Maas was constructed for opening up the area
- The area was very well connected to public transport/road infrastructure
- A well thought mix of living/recreation/offices was created

- The private sector was involved in early stage in plan development
- Plans were made sufficiently flexible and room left for expansion (can decrease development risks).
- A separate organisation was created to direct the development process

The PPP was organised in form of an agreement between the different parties, which was not legally binding on the partners.

A very easily accessible and business like information centre has been set up where comprehensive information is available to all prospective investors, in a variety of mediums such as audio-visual shows, three dimensional models, CD ROM, maps, drawings, brochures. The project has been given an identity of it's own by uniformalising the colour schemes (which is practically like a flag of the project) for all the publicity material.

Weaknesses so far

Too little investment from the private sector has been made so far. It is feared that the planned supply of office space is too large in comparison to the demand in the city, and therefore, the returns from the projects may not justify the huge infrastructure that has been built.

Wilhelminapier, part of the project, which was expected to become the economic heart of the project, with mainly 'port-related' offices, a cruise terminal and congress centre, has not attracted the anticipated response. This may lead to the area becoming, instead of commercially interesting, a 'bureaucrats-area' and therefore not serve the objective of attracting international trade offices.

Relevance for Delhi MRTS

- Lack of a binding legal contract can lead to the private sector not investing at the actual time of project implementation and could consequently stall the project. Mechanisms such as a contract of intent would help cover this risk.
- A very thorough market research is very crucial for the success of the project. Assumptions about the demand of commercial property, both in quantitative and qualitative terms if not substantiated with field investigations, could unpleasantly surprise the government.
- Efficient transport linkages can enhance the value of land and increase it's attractiveness for commercial development.
- Effective information campaign is necessary if the government is to commercially exploit its land which, like any other commercial venture, should be carried out in a business like manner.