REALISTIC REQUIREMENTS OF TRANSPORT IMPROVEMENT FOR SUSTAINABLE URBAN DEVELOPMENT : KEY ISSUES FOR EGYPT AND OTHER DEVELOPING COUNTRIES

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ABSTRACT

Many developing countries have been investing on city transport and communications infrastructure projects over the last three decades. This is primarily been directed to overcome the problems of rapid urban expansion and increased urbanization rates. The present paper starts (in section 2) by a brief example on the case of Egypt with some reference to Greater Cairo. In spite of the many projects for improving urban quality, still other types of effort are needed. This is true not only for Egypt but certainly for many other developing countries.

The paper in its main part (Section 3) addresses key issues related to further requirements of transport improvements which are of equal importance to infrastructure projects and can lead to sustainable urban development. These "realistic' requirements stem from the "realities' of the transport sector that can in many ways impede the planned outcome of the massive investment directed to this sector. Because these requirements are believed to be prevailing in many developing countries (and in some situations in developed ones too) the discussion in section 3 is given in a global manner addressing developing countries in general.

Urbanization and Transport/Communities Improvements in Egypt

Urbanisation is expanding in Egypt and likewise in other countries. At the beginning of the century about 15% of the population were living in urban areas. This has jumped three times to about 44% by the late 1980's and is expected to exceed 50% by the early 21st century. In many instances urban growth has taken place at the expense of agriculture land around cities and in a random (unplanned) fashion. As in many cases in developing countries Egyptian cities were not originally built to absorb the ever increasing population. Thus, urban growth has put heavy burden on infrastructure and utilities at all fronts; transport, communication, water, sewer and electricity. Also urban services are affected including housing, education and health. Random urban expansion around big cities also causes many social problems and unpleasant environmental impacts.

Since the 1970's successive Egyptian governments have been concerned about urban growth. Many projects have been authorized to plan expansion and to improve urban quality. Fifteen new towns have been planned on desert land all over the country. In eight of these three private sector industries are evolving there. These new towns are always expanding, though at varying rates. The other seven new towns are under construction together with eight new residential settlements which are being built around Greater Cairo (GC), some of which are already inhabited.

For the existing urban areas, effort is also being made since the early 1980's for infrastructure improvements and expansion. In GC, for example, giant projects for sewer networks expansion and upgrading have been taking place. Also, the telecommunication network and services have witnessed well planned and executed projects of modernization and expansion at the national level. For instance, the number of telephone lines increased from 0.51 million to 3.36 million between 1981 and 1994. Automatic phone service covered 220 cities in 1994 compared to only 7 cities 13 years earlier. Furthermore, the number of fax lines increased by 63 folds between 1986 and 1994. At the transport scene over 40 flyovers, bridges and elevated roads as well as new multistorey parking garages were completed during the last 15 years to improve traffic circulation in GC. In addition, the first metro line was opened to service in 1987. This 42 km line is currently carrying about 1 million passengers every day. The second metro line, a locally financed project, is under construction and scheduled for opening to service in 1997/8. A new ring road around GC is nearly completed which will free the capital street network from unnecessary through traffic. This project is expected to have some impact, therefore, not only on reducing traffic congestion but also on air quality, reduction of accidents and noise levels; a badly needed environment quality improvement. Other infrastructure (transport, communication etc.) projects have been implemented in other cities in Egypt; though

naturally at lower scales than those implemented in GC.

Key Issues and Realistic Requirements Towards Sustainable Transport Improvements in Developing Countries.

The development of the Habitat II Global Plan of Action (GPA) is to be viewed with an eye on the role of urban transport and communications sectors. Each plays an important role for achieving healthy urban development, and both are mutually interacting. Transport and communication should always, therefore, be considered as essential catalysts of sustainable urban development. Hence, long term transport planning should not be isolated from the expected (definite) impacts of planned improvements and expansion in communication technology. The present paper though acknowledging this fact, yet it, as mentioned earlier, focuses on transport sector issues and how it can be directed to support sustainable urban development.

We start by having to face the realities of the existing institutional structure and functioning in city transportation in developing countries. Full understanding of the sector is necessary but unfortunately lacking. Many of the sector institutions do not fully understand the role and the duties of the sector. If such full understanding is achieved it can exert useful impact. Examples are many: elimination of duplicate services and works, full concentration on the institutions basic duties, better coordination of services within the sector and above all optimization of the resources of the individual institutions and the sector.

Creation of the necessary political will for policy formulation, implementing and monitoring among city managers, top level decision makers and local councils is another key issue. Though this is highly recognized, some realities of the sector impede its achievement. For instance, there exists some kind of misunderstanding of the impact of long term policies. Some of the concerned bodies see setting policies as just recommending a set of new projects! Furthermore, many of those who are supposed to set policies are preoccupied by following up day to day events on transport services and operations. The importance of establishing sound information (on the transport sector as well as on the city) which are required for policy formulation and monitoring is an issue which is sometimes not fully appreciated by city officials. In some situations, when these officials believe in the importance of establishing information systems, they can easily face the reality of either the non-existence of the data or the extreme difficulty of obtaining it. In many situations too, not only in the developing countries, top politicians show more interest in short term projects which achieve quick results. They, therefore do not give full attention to the formulation of long term policies. Creation of an institutional framework that is capable of policy formulation and monitoring and handling the required information system is, therefore, very important for making the development of urban transport supportive of sustainable urban development.

Within the existing institutional structure in the developing countries their are some serious realities that can in many cases distort the scale of the expected output and achievements. These are related to the existing human resources. In certain cases the right personnel are not appointed to the right job though they do exist in the job market. Examples can include the domains of traffic management, bus planning and urban transport planning in general. However, this is much less concern in the classical domains of highways and railways engineering. In other cases the employed professionals are not really up to the required standard. Training of personnel is required at all levels; from top management down to those responsible for daily operations. This is also to cover management as well as technical domains. Though many training schemes have been undertaken through international agencies and programmes in many of the developing countries, such short schemes may in some cases be hindered by various realities as follows:

- participants are not up to the required level to receive the course.
- participants are not originally trained or educated to work in this field (e.g. persons other than traffic engineers being responsible of, and attending a course on, traffic management).
- course organizers are not aware of the realities of the existing situation and working environment (e.g. a course addressing the latest state of the art and technology in area traffic control while the city do not, and is not planning to, operate such schemes).
- the course is not designed to meet the real needs of the attendants and local practices and requirements.
- local specialized professionals are not participating, though they are the best to know local requirements.
- the course is effective in a very short term context but lacks any kind of follow up courses.

Another serious reality of the human resources market is the ever existing problem of the low scale of salaries of local authorities in developing countries. This prevents such institutions from employing the right professionals. It has hindered the serious efforts of many international agencies (e.g. WB in the 1980's) to create Traffic Management Units (TMUS) in some developing country cities, for example. Though effective plans for TMUs were put forward, implementation successes were much less than failures. One of the main reasons, for the Cairo case for instance, has been the lack of a sufficient scale of salaries to employ the right engineers at a proposed TMU. Furthermore, for the same reason many of the national transport agencies (e.g. highways authorities) suffer from the drain of engineers and technicians who after receiving good training when they desert the government for the private sector.

Besides the realistic reforms required above for the institutions and the related personnel their is a need for some considerations at the planning stages . These are very important if we are concerned with sustainable development. In addition to what is mentioned earlier about linking transport planning with advancement of communication technology, their exist other key issues. First is the well known need for linking transport planning and land use planning. Such integrated planning is of a particular importance especially in cases of new towns and urban expansions. Second, and of a growing concern, is the linking of land use and transport on the one hand, with environmental quality on the other. Sustainable development has an environmental element that depends heavily on transport which results from land use and urban growth. It is very important to link land use, transport and the environment and not to plan for the former two without linking their impact with the latter. Many relevant research effort has been taking place in many of the developed countries in recent years. It is of equal concern to carry out similar research work in developing countries. This can pave the way for approval of many projects that are environment friendly yet currently opposed based on results of other traditional evaluation criteria. The third and perhaps the most important issues for sustainable development is the linking of planning horizons in particular to the achievement of environmental and economic objectives. In other words, we need to create a practical linkage between transport plans at the short and medium terms and those set out for the long term. Also immediate action proposals should always be set out in a manner that is adaptive to short term plans. This is again true for short term and medium term plans. Such, linking of the chain of transport plans over time is very important as a realistic key issue for meeting present needs without compromising the ability of future generations to meet their needs as defined by the World Commission on Environment and Development (Oxford Univ. Press 1987).

Who pays and who benefit is yet another very interesting topic. Some relevant issues of the realities of urban transportation in developing countries can be mentioned. For instance, in many of the big cities the minority that use private cars and get the fruits of related projects still congest the streets for pedestrians and transit captive users without the slightest share in bearing the cost. A good number of sidewalks are occupied by parked vehicles, street congestion causes delay to buses and highway related projects impede those for transit. In some instances counter argument exists, however. If we construct a flyover, buses will share benefits too. But is it really true that we build flyovers just for the sake of transit users?

It is perhaps very important to divert the attention of policy makers and city managers to the issue of transit fares and financial performance. In a world that is moving to a market economy and economic reform it is not accepted to continue subsidizing transit at current ever increasing levels. However, it is also socially unacceptable to a put big burden on the budget of the households who are captives to transit. New and realistic fare policies are needed to achieve the following:

- Realistic actions to eliminate unnecessary costs of transit operation (e.g. costs of congestion, reduced commercial speeds, over staffing and loss of revenue over a reasonable timeframe. Of course, responsibilities should not only be left to operators. City engineers (e.g. traffic) are also responsible.
- All beneficiaries of transit and the road should bear the cost. Through realistic means of external financing this can be achieved. These can include earmarked taxation on private car licensing, fuel and traffic fines as well as on land developers at remote urban expansions. Employers participation in bearing the cost of transportation of their workers on the transit network such as the case of Paris and other French cities is another option.
- All parties which ask for free rides to their personnel (they can be considerable in some cities) should bear the cost. It is unfair to leave certain groups to enjoy free rides on transit while other people pay.
- Gradual increase of fare values without neglecting the social dimension. This is to be coupled with the introduction of appropriate fare structure at reduced values (e.g. multi-mode tickets, multi-journey cards and

seasonal passes).

Such policies can have good impact on sharing the cost of transit by all users not only of this system but also of other modes on the street network and those who indirectly benefit from transit operation (employers and land developers).

At another front of "who pays and who benefits" one finds that while pedestrians are tax payers just as private car and transit users, are they do not enjoy the same attention (in many cities of the developing world) as the latter two categories. In other words, pedestrians and cyclists pay but do not have fair share of the benefits. Most projects are directed at the private car and transit facilities. Something should be done for this group of travellers who walk simply because they can not afford either to own a car or even to use transit for the daily work trip. The equity dimension of sustainable development should, therefore, prevail among all urban travellers regardless of the mode they use. Every one should have a fair share in benefits and should bear a fair share of the cost. Furthermore, traffic improvements should be distributed in a reasonable manner over the street network. Sometimes solving problems on one corridor (or at an intersection) transfers congestion to other corridor(s) or intersection(s). This again violates the equity requirement of sustainability among people living around (and using) the latter corridor(s) or intersection (s).

Other realities of the urban transport sector in developing countries can, if carefully handled, give way for sustainable urban development. Optimization of existing transport systems and services is on top of the list. For example due to poor management, lack of understanding and lack of resources, street capacities are reduced in some cities. Bus fleet utilization, and, hence production, are distorted too. Full utilization of the potentials of the existing transport system as well as practical means of demand management can, therefore, save investments for other generations to utilize in the future and at the same time give way for present generations to benefit from existing supply. This is the heart of sustainable development. Setting appropriate standards to control and monitor urban transport systems performance and expansion is another key issue. Lack of appropriate standards in many cities of the developing countries causes many environment related problems can seriously damage healthy urban development. Another reality practised in some developing countries cities is the conduction of many urban transport studies while not implementing but a few. Customary politicians and city managers feel proud to announce that they have scientific minds and sponsor studies. Unfortunately, they at the same time do not have the will, the courage, the budget and/or the technical capabilities for implementing the studies results. It was reported, for instance, in a major city that between 1975 and 1990 more than 60 transport related studies were undertaken and only 15% were implemented. This is a real problem and a luxury that developing countries cannot afford.

Finally, it is unacceptable that some giant projects in developing countries have found foreign (or local) massive financing while minor low cost complementary projects cannot find the required budget. An example is the case of building a new rail mass transit line without approving a budget of only 1% of the cost of the line for complementary measures to achieve integration with other transit services in the city. Simply because the cost of the line construction is handled by the national government that can obtain financing whereas the cost of the complementary integration project is in the hands of the local government is no excuse. Budgets of local governments cannot bear such cost neither they can secure external financing. Neglecting to implement these projects, however, have serious impact on full utilization of the larger project and, hence, make full use of the investment. It is therefore, very important for central governments, donor countries and lending agencies, if they finance giant projects, to bear the responsibility of financing at the same time the required small scale complementary ones. This is very important for achieving a transport system that is supportive of sustainable urban development.