

THE AGA KHAN UNIT FOR HOUSING AND URBANIZATION
At the Harvard University Graduate School of Design

Urban Infrastructure
Planning and Programming in Developing Countries

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URBAN INFRASTRUCTURE

PLANNING AND PROGRAMMING IN DEVELOPING COUNTRIES

I. Introduction to the Course Background

Virtually without exception in the cities and towns of the developing world, the ability to plan, finance and implement urban development programs and infrastructure programs in particular, is in a state of crisis. Severe deficiencies exist and are growing in nearly all sub-sectors. Explosive population growth, partly through immigration from rural areas and in the cases of the largest cities, natural growth, have placed pressures on city authorities for increased services. For instance, the population of the urban areas in developing countries is likely to grow by 1 billion over the next two decades. Simultaneously with growth to date, the state of existing services has universally deteriorated. At the same time the governments in these countries are trying valiantly to cope with what are prime concerns; large and growing unemployment and under-employment, and raised expectations by their peoples of access to minimum basic needs in water supply, shelter, etc.

These pressures though countrywide, are visibly focused in the urban areas, and thus influence political, administrative, financial, and economic decisions, not always in a coherent or rational manner.

"Urbanization involves costs to the public sector which amount to large shares of total public spending. Dense human settlement requires levels of servicing - for health reasons, if no other - which are not as essential elsewhere. Rising incomes increase demands for water, electricity, road space, telephones and similar public services. Expectations for urban amenities and appearances are high, and the costs of providing them are also high. Growth of the larger cities often involves diseconomies of scale - longer pumping distances for water and travelling distances for commuters, for example. In some of the largest metropolitan areas, geographical shape and terrain accentuate the costs of growth: Bangkok, Bombay and Mexico City come to mind. Soaring land prices add to the costs of private and public sector development.

As a result, urban areas are demanding rates of investment that are far higher than those achieved (or needed) by the cities of Europe and North America during their rapid growth. These heavy investments give rise to high levels of current expenditure. Such demands pose considerable problems for national governments. They place heavy strains upon absolute levels of public resources.

On the other hand, the global economy is also undergoing a particularly difficult period of readjustment from the relatively easier political and economic climate of the sixties and seventies. Donor countries faced with their own economic problems have had to make significant cuts on their aid contributions. Multilateral aid agencies are experiencing resistance to securing forward financial commitments. Private capital and commercial banking is preoccupied with the future of past loans. The picture ahead is gloomy.

Decline in Urban Services Delivery

The response to the continued deterioration of services is nearly always the same. Local authorities are showered with charges of mismanagement, incompetence or apathy, without reference to what are often major constraints emanating at the level of the national government; for example, an inadequate revenue sharing formula, an over-centralized bureaucracy, the existence of a vague or non-existent policy framework for coping with urban development. In these circumstances, the future of local government is threatened.

In many cases when the local authority's ability to deliver or maintain services is in doubt, parastatal (national agencies) have been created, and given full authority for planning and implementing sector specific investment programs that cut-cross physical and legal jurisdictions of local urban authorities and their constituencies: thus they are less sensitive to consumer priorities. Most common among these are Water and Sanitation and sometimes Highway Authorities. In some countries, however, even the parastatals are failing and are unable to cope.

Accompanying this trend is that of the diminishing share of revenues between central and local urban authorities. The latter are left increasingly to fend for themselves and seek additional revenue mobilization from local sources, in some cases without adequate legal powers. In many cases even the existing legal framework, with whatever shortcomings, is not fully utilized. This apparent unfairness in resource allocation, coupled with the weak or inadequate political motivation at the local level, and increasingly a breakdown in basic discipline particularly in the financial sphere has accelerated the deterioration of the financial status of most urban authorities with consequent demoralization of management. This in turn has led to difficulties in recruiting competent and trained manpower resulting in further accelerated decay.

"Budgeting" has become a formality to be undertaken, not as a planning and monitoring tool but merely as an administrative means for requesting and obtaining a financial sanction from the national treasury. There is no relationship between what a city management is required to perform by way of responsibilities and its available resources to deliver such services.

In the recent past, there has been an increasing awareness by a number of national governments of the need to strengthen local authorities and with it improve their financial and management capacity to maintain the delivery of efficient services at the local level.

In the meantime, urban management is reduced to dealing with the crisis of the moment, which take precedence over the needs of the future. Urgent matters are handled on a "one-by-one" basis. Existing infrastructure, including many recent investments are allowed to fall into disrepair. Until recently it has been easier to raise money for new capital investments than for maintenance or rehabilitation.

With the experience of trends in the deterioration of physical infrastructure and the operation of services, and the increasingly difficult financial climate ahead, operation and maintenance must inevitably become the major urban management issue in the immediate future. There is an urgent need for human and financial resources to be allocated in a systematic approach to operation and maintenance.

Themes and Objectives of the Course

The provision and maintenance of infrastructure is part of a process which aims to enhance the social and economic welfare of people, and in our case, urban people. This should be constantly at the back of our minds throughout the Course.

The extent of unemployment and under-employment in LDC's and the serious financial limitations imply that governments be required to define policies and actions that will assist low income earners to increase their productivity. This often calls for measures that will remove barriers to their earning opportunities, and improve their access to public services.

The provision of infrastructure should be regarded as part of a program which will promote the productivity of urban dwellers by providing the employment opportunities, the infrastructure, and the services necessary for that purpose.

The question that remains is - how is this to be done? The employment problem in urban areas is not just a question of jobs, but rather the level of productivity and earnings. Most people have some means to eeking out a living. But they are often prevented from increasing their earnings by a combination of market forces, institutional arrangements, and public policies which sometimes favour well established firms and penalise the poorer or informal sector.

The Case for Giving Emphasis to the Urban Poor

It is the enhancement of productivity and earnings, of the informal sector which must command most of our attention, whilst of course, not neglecting the more organised sector. Whilst it is true that as the formal sector expands it tends to generate some indirect employment in the informal sector, but it should be remembered that it can cost up to \$100,000 to create a job in a capital intensive industry. In addition, the formal sector has the capacity to destroy jobs, e.g. a capital intensive plastic footwear factory employing 40 persons could have a serious effect on thousands of small traditional leather shoe makers and their suppliers.

Given, then, the limited potential of the formal sector in most developing countries to absorb labour, it is not surprising that the informal sector is a critical component in urban employment and its expansion. It provides more than 50 percent of the employment in many third world towns and cities. The unfortunate fact is that many governments tend to regard the informal sector as backward, inefficient and a painful reminder of a less sophisticated past. They sometime legislate with the intention of doing away with the informal sector.

It is true that economies of sale are important in some activities. But it is not true that all small scale enterprises are uneconomic. In the production of many types of food, clothing and furniture, and in construction, transportation, assembly, packaging, repairing and service activities, small units can compete effectively.

But government prejudice against the informal sector frequently gets translated into public policies which give undue advantages to big firms; unrealistically low exchange rates for capital imports, special tax exemptions and subsidised interest rates. All of these measures favour the large capital-intensive firms over the small enterprise, and have the effect of reducing the employment opportunities of the poor.

These discriminations against the poor are compounded by limited access to public services, which also affect health as well as productivity. The poor often suffer debilitation of one form or another. This is not surprising considering the squalor in which they live. Frequently they have no public water supply, sewerage or solid waste management services. They frequently have to pay an excessive rate for water, when purchased from the street vendor.

But if the poor are denied equitable access to water and sanitation services they fare equally badly with education. Children from poor families seldom reach secondary school, much less a university. This means that education - in theory a powerful force in equalising opportunity - in fact often reinforces rather than reduces, existing economic disparities.

The foregoing should not be regarded as an argument for:

- (i) providing subsidies to poor families; or
- (ii) against assisting the formal sector.

It should perhaps be regarded as an argument for trying to redress some of the imbalances between rich and poor. I am not enunciating a theme in which we concentrate our energies on 'losers' - on the contrary - let us back the 'winners' and encourage them to take others with them.

What we must remember in all this is that there are 'winners' and 'potential winners' in the informal sector (as well as the formal sector) who, as things stand at present, are at risk of never having the opportunity to fulfil their potential. One of our tasks is to learn how to create the opportunities.

I am saying all this in order to 'set the scene' and give a context to our thinking in the provision and maintenance of infrastructure.

There are a number of ways in which governments can assist the small producer or self-employed, e.g.:

- (a) assure access to credit on reasonable terms: (kerb side credit, often the only source of credit to the poor, can cost up to 1 percent per day):
- (b) promote links between the informal and formal sectors by reserving land for small enterprises in the vicinity of industrial developments:
- (c) promote the cooperative spirit with central services provided by an entrepreneur(s):

- (d) remove onerous and often outdated licensing and regulatory controls: and in addition;
- (e) provide the poor with essential public services at standards they can afford.

Approximately one third of the population in most LDC cities live in slums that are either wholly without or are inadequately served by public water, sewerage, transport, education and housing. These conditions have a seriously detrimental effect on the health, productivity and incomes of the poor.

The whole question of 'standards' of urban services works to the disadvantage of the urban poor for they are often written with middle class orientation in mind and have little relevance to the situation the poor find themselves in.

Standards are important, but they must be formulated to meet realistic and attainable objectives. If the needs of the poor are to be met within a reasonable time span, public utilities and Social Services will have to be provided at costs which they can afford to pay.

Objectives

Whilst accepting the social and economic themes that underscore the course we must remind ourselves that the course is concerned with the Planning and Programming of Urban Infrastructure and define our objectives with this in mind.

The planning, programme and implementation of urban infrastructure should aim to address problems of:

- (i) urban growth;
- (ii) service deficiency; and
- (iii) operation and maintenance of services; and in order to do this effectively we have also to address a fourth issue, i.e.
- (iv) the development of financial and human resources

We should concern ourselves with addressing these issues and 'Themes' discussed above, but the problems are so complex that governments cannot and should not attempt to do everything themselves. They should concentrate on doing only those things which people cannot do themselves - i.e. provide and maintain services and in the process create a 'climate of opportunity', i.e. a situation in which people can exercise their own talents and help themselves. This implies harnessing and using private sector energies, skills and talents, as much as possible.

The foregoing leads us to the broad objectives of the course which are to discuss ways and means to:

- (a) develop and strengthen institutional capacity for the planning, programming, financing and implementation of new investment and management of existing resources and services delivery in urban areas;

- (b) encourage collaboration between government agencies, community leadership and the private sector in the identification, preparation and implementation of urban development programs and services.
- (c) operate and maintain existing cities and their infrastructure and develop techniques and opportunities for stretching out the useful life of existing infrastructure.
- (d) enhance fiscal and human resources.

The course aims to meet these objectives by holding discussions and tutorials on the following subjects.

- (a) Institutional aspects of urban development, national and local links;
- (b) Urban Developments and multi-sectoral investment planning;
- (c) Selection of appropriate infrastructural standards and integration of systems.
- (d) identification, feasibility and appraisal of infrastructure projects;
- (e) overview of operation and maintenance of infrastructure; and
- (d) capital budgeting and recurrent budgets, human and fiscal resource development.