



TRAINING MANUAL
ON
URBAN LOCAL GOVERNMENT FINANCE
FOR
SOUTH ASIAN COUNTRIES

**READINGS AND CASE STUDIES
IN URBAN FINANCE**

**ECONOMIC DEVELOPMENT INSTITUTE
THE WORLD BANK**

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FOREWORD

The United Nations Centre for Human Settlements (Habitat) and the Economic Development Institute of the World Bank place high priority on training as an element of human settlements strategies. As one of their activities in this area, they organize training courses and workshops, conducted in collaboration with local training institutions in developing countries and, often, sponsored jointly with other agencies, such as the United Nations Development Programme (UNDP), the United States Agency for International Development (USAID) and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). The principal objectives of these training programmes are to promote new approaches and techniques, to train trainers, and to develop and test training materials.

An important element of the Centre's training strategy is the strengthening of local-government financial-management capabilities. Municipal governments in many developing countries face immense challenges, having to cope with the physical and social costs of rapid urbanization from a low economic base. Efforts to improve living conditions in urban areas are frequently undermined by poor financial management, aggravating the problem of the scarcity of resources by misusing those that exist. Financial mismanagement is translated into inadequate services and a deteriorating environment - potholed roads, low water pressure, and drains choked with refuse, among other things.

Sound financial management is, therefore, an integral part of any human settlements development strategy. This manual describes the components of sound financial management - revenue generation, budget formulation and execution, financial information and control - and prescribes and illustrates a strategy for reform - a process by which central and local governments understand and commit themselves to a series of comprehensive measures to provide a sound financial base for municipal government over time by planned and feasible stages. An illustration is provided by a case study, which runs through the various stages of this Manual. Readers are asked to go through stages of analysis, calculation and choice aimed at putting an imaginary - but not too imaginary - city "back on its feet", not just in terms of finance but in terms of the services which money can buy.

Sound settlements management is seen as a key element in placing developing countries on a sustainable path to economic, social and physical improvement and in achieving the goals of the International Development Strategy for the Fourth United Nations Development Decade, 1991-2000. Expanding the human resources required for settlements management is a fundamental requirement, and this Manual is one of a series intended to assist training institutions in developing countries in the strengthening of their curricula in the human settlements sector.

This training manual, titled "Readings and Case Studies in Urban Finance" has been developed and tested in two courses in South Asia, jointly sponsored by the United Nations Centre for Human Settlements (Habitat), the Economic Development Institute of the World Bank and assisted by United Nations Development Programme. One of these courses also benefited from assistance of the Government of the Netherlands. A similar training manual has been produced and tested in three training programmes in Eastern and Southern Africa. The original training materials were produced by a team consisting of Professor Kenneth Davey, David Gossman and Philip Gidman, and they have been edited by Professor Davey in collaboration with the staff of the UNCHS (Habitat) Training Unit.

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INTRODUCTORY TRAINER'S NOTES

This volume contains material for use in courses on urban financial management, particularly in relation to the rapidly growing cities and towns in Africa. Such courses may be of different types and durations. On one hand they may be part of a larger curriculum for a post-graduate degree/diploma or a professional qualification. In such cases the course will be one of a number running concurrently, and the subject matter may occupy one or two sessions a week over one or two terms or semesters: candidates will be subject to some form of individual assessment. On the other hand, urban financial management may be the focus of a short seminar or course for central- or local-government officials, lasting perhaps from a week to a month, but not leading to any specific qualification: there will be no individual assessment and the emphasis will be on group discussion and problem-solving.

The material can be used in either context. By using the case exercises selectively, the subject matter could be compressed into a course of 10 days. Candidates preparing for a post-graduate or professional qualification, however, would be expected to read a wider literature, as this volume provides only a basis of lecture notes and illustrative exercises.

The volume has two components. The first is a set of readings on each of the main elements or topics of municipal financial management, including principles of revenue generation, individual types of municipal revenue, the various stages of the budgetary process, financial control and auditing. These readings are designed as a preface to seminar discussion. Ideally, participants would be asked to read the appropriate chapters the night before each day's discussions and to prepare contributions to the debate linked to their own experience.

The second component is made up of the case studies. These comprise an interlinked series of exercises covering the process of financial reform in an imaginary city (the city is not entirely imaginary; data from a number of real cities have been combined). The purposes of the case studies are:

- (a) To illustrate the processes described in the readings;
- (b) To give participants confidence in undertaking simple numerical analysis and to overcome any insecurity in considering the use of the processes of financial management;
- (c) To illustrate the concept of a strategic, medium-term approach to improving the financial performance of a municipal government;
- (d) To introduce variety into a curriculum.

The case studies are designed for small group work. However, they can be undertaken as individual written assignments and assessed for post-graduate or professional qualifications. Group work can be combined with individual assignments; for example, stage II (chapter X) involves a number of self-contained exercises which can be farmed out to individual members of a working group to undertake and report back.

The case studies do not have to be undertaken in their entirety. They can be used selectively according to the time available and the seniority and experience of the participants. For example, at stages II and III, only one of the service-costing exercises (education, refuse collection or roads and street lighting), might be undertaken to illustrate a zero-based, unit-costing approach. Tutors can simply feed in the results of the other exercises when needed in stage IV. Stage IV can be shortened by requiring participants to complete profiling in respect of one or two items only; the remainder can then be supplied for use in the budget-monitoring exercise.

It is difficult to predict accurately the amount of time required for the group work. Experience suggests that it is better to timetable group exercises in the afternoon with report-back, plenary sessions at the beginning of the following morning. This gives groups the opportunity to extend work into the evening if necessary; this type of activity also tends to command more attention after lunch than does general discussion.

The case studies are, of necessity, oversimplified to fit into the constraints of a curriculum. Undertaking these processes in real life would involve far more detailed information and far more time. This should be mentioned to participants at the outset, though it is readily understood by them.

PART ONE: INTRODUCTION

I. REFORMING MUNICIPAL FINANCE

Trainers' notes

This chapter sets urban financial management in its context and outlines the agenda of issues to be examined in the course. It should be used as preparation for a discussion in which participants analyse and compare:

- (a) The general problems of urbanization
- (b) The system of urban government
- (c) The specifically financial problems of their own countries and cities.

Oral presentation may be invited in respect of each city or country represented, using the chapter as a framework.

If the course is international, it is particularly important that institutional differences in the various systems of urban government are identified in this initial discussion. Later discussion of individual issues can be very confused if participants do not realise that systems are not uniform: e.g., that water supply is a municipal responsibility in country A but that of a State-level enterprise in B.

Finally, this chapter aims to make participants conscious, from the outset, of the multi-faceted nature of urban finance and the usual need for reform on a broad front. It introduces the idea of strategic management; i.e., of a comprehensive multi-year approach to strengthening financial management. Changes which might encounter resistance may be acceptable when planned to take place in progressive stages over a number of years.

A. *The urban context*

1. During the last quarter of the twentieth century, the population of urban areas in developing countries is likely to grow by 1 billion. Some individual cities are growing by 250,000 to 500,000 people annually. Whether this is good or bad is academic; measures to stem population growth or rural-urban migration might or might not reduce the rate of urbanization, but its scale over the next two decades will still be massive and unprecedented.
2. Urbanization involves costs to the public sector, which amount to large shares of total public spending. Dense human settlements require levels of servicing - for health reasons, if no other - which are not 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. The growth of large cities often involves diseconomies of scale in some types of infrastructure - long 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, Lagos and Rio de Janeiro are cases that come to mind.
3. As a result, urban areas in developing countries are demanding rates of investment that are far higher than those achieved (or needed) by the cities of Europe and North America during their periods of rapid growth. Heavy investments give rise to high levels of current expenditure, and these combined demands pose considerable problems for national and local governments. They place heavy strains upon absolute levels of public resources: they add to political conflicts over the allocation of resources between regions or between town and country; they may endanger national investment priorities, particularly efforts to contend with the conditions of rural poverty which produce much pressure upon urban areas.



4. The financial consequences of urbanization and the dangers of over investing national resources in urban services have two implications, which will provide themes for this Manual. The first is the need for cities, as a whole, and urban government agencies, in particular, to generate as much as possible of the resources they need for investment and current spending. The second is the need for public agencies to make the most effective use of resources - to seek low-cost solutions to problems wherever possible, to diffuse the benefits of investment as widely as possible, and to avoid waste and leakage.
5. There is a further dimension to these two points. Most large cities have big concentrations of poverty. Wide disparities in standards of living are not unique to cities, but they are highly visible and have often been accentuated by past practices in public-sector policy and the provision of services. It is a matter of great and growing concern that attempts to generate public revenue in cities should not add, at least disproportionately, to the burdens of the poor and that priority in public expenditure should be given, wherever feasible, to those types and methods of service provision which will benefit the poor.
6. It is likely that this context and these objectives of urban financial policy will be widely understood and accepted by readers. It will not be necessary, therefore, to devote further time to discussing or defining them in general. They will, however, underlie the content and the discussion of individual financial issues and practices.

B. The role of municipal government

7. Despite tremendous variations in its character, municipal government is a worldwide institution. Almost all towns and cities have a representative or quasi-representative system of local government. There are many differences, however, in characteristics. Important variations are as follows:
 - (a) *The relationship of municipal boundaries to urban settlements.* In cities such as Bombay, Lusaka and Nairobi, a single local authority has been responsible for the core city and virtually all suburban development. Cairo, Calcutta and Manila, by contrast, represent cities fragmented between a number of municipal jurisdictions.
 - (b) *The extent of municipal functions.* Refuse collection, market administration, local road maintenance, cleansing, drainage, lighting, parks and recreation are virtually always municipal responsibilities. What varies widely is municipal involvement in:
 - (i) Public utilities, chiefly water and sewerage (provided, sometimes, by a national corporation, or typically by a metropolitan corporation or, a municipally controlled enterprise) and electricity (usually a national utility responsibility, but, sometimes, a function of local government);
 - (ii) Social services (municipalities often provide primary schools and clinics, but less frequently secondary schools and hospitals);

- (iii) Public protection (fire services are frequently municipal, but police forces infrequently so outside Europe and North America);
 - (iv) Trunk roads, which can be a national, provincial or local responsibility;
 - (v) Provision of rental or purchase housing or serviced sites (sometimes a municipal activity, sometimes that of a special purpose authority);
 - (vi) Regulation of land use and development (usually, a municipal but, on occasion, provincial or metropolitan authority function).
- (c) *The degree of integration in a vertical chain of administration.* American, British and (to some extent) Spanish traditions treat municipalities as separate political, legal and administrative entities, albeit subject to varying degrees of external supervision. French and Ottoman traditions place local government within a vertical hierarchy of governmental institutions; locally elected assemblies have legislative powers, but executive responsibility is often exercised by administrators (governors, prefects, etc.) with a dual responsibility to central and local government. (This pattern is changing within France itself but is still prevalent in French-speaking African countries).
- (d) *The location of executive as opposed to legislative responsibility.* This may be vested in an elected leader, governor or mayor, an administrator appointed by central or local government, or the elected representatives who, as a body, directly supervise their professional staff.
- (e) *The extent of external supervision.* This applies particularly to the requirement for central- or provincial-government approval of budgets, revenue tariffs, staff appointments, contracts and development plans.
- (f) *The nature and buoyancy of revenue sources.* These will be discussed in Part Two.

Non-municipal authorities and enterprises

8. A further variable is the existence of parastatal authorities or enterprises at city (as opposed to national) level. These may have three types of function:
- (a) The provision of specific urban services, such as water supply, sewerage or public transport;
 - (b) Comprehensive development of new areas for residential, commercial or industrial occupation;
 - (c) Metropolitan planning and development control.

Occasionally, a single authority performs two or all of these functions. The Karachi Development Authority, for example, is responsible for master planning and new area development (and, until recently, for bulk water supply).

Private-sector involvement

9. A final variation is the role of the private and voluntary sectors in the provision of urban services. Private enterprise, in many cities, provides, totally or partly, services which, in other cities, are run by the public sector. Examples are public transport, medical services, nursery education and commercial refuse collection. Furthermore, public-sector responsibilities may be contracted out to private-enterprise or voluntary bodies. Examples are refuse collection, road maintenance or the operation of sporting and other recreational amenities. Inputs to services may also be contracted out in this way, such as architectural design or office cleaning. Although private-sector involvement in urban services has a long history, preceding, in many cases, the growth of municipal government and public enterprise, there is much current interest in its expansion. Privatization is seen as a device for eliminating a whole area of public expenditure; alternatively, contracting out is intended to reduce costs, through competition or use of voluntary effort, while maintaining overall public responsibility.

Box 1

Faced with continuing urbanization and severe economic constraints, several governments are increasing the role of municipal government in urban management. Objectives include improvements in investment decisions; execution of projects through the involvement of local knowledge, preference and accountability; mobilising extra resources from local revenues and communal participation.

Mexico, for example, amended its Constitution in 1983 to give municipal administrations prime responsibility for land-use planning and development control, water supply and sanitation, cleaning, roads, parks, markets and street lighting. Property tax revenues were vested in municipalities by the same amendment and they had already been given statutory shares in federal revenues. The 1988 Constitution in Brazil considerably increased both municipalities' shares of federal and state taxes and their own taxing powers; a number of additional responsibilities are being transferred to them particularly in the field of public health. In Turkey, a series of legal amendments between 1983 and 1988 increased municipal taxing powers and shares of national revenues, and established powerful, elected metropolitan authorities in the larger cities. In India, constitutional amendments to protect the existence and powers of municipal bodies were introduced in Parliament in 1989.

Conclusion

10. Two features of this brief analysis have financial implications, viz.,
- (a) Very wide variations between countries (and even, within countries) in the structure of urban government and the allocation of responsibility for individual urban functions;
 - (b) Considerable fragmentation of responsibility between levels of government between general and special purpose authorities, between territorial jurisdictions and between public and private sectors.

Numerous attempts have been made to rationalize the institutional framework, to extend municipal boundaries, to amalgamate municipalities, and to superimpose metropolitan-wide co-ordinating or planning authorities, among others. All such attempts meet institutional resistance; all reorganisations are very costly, and few have yielded more than partial success. The system of urban finance has to live within the specificities of governmental structure.

C. **Municipal financial management**

11. The main purposes of financial management in municipal government are:
- (a) To keep the municipality solvent;
 - (b) To ensure it enough revenue to carry out its main responsibilities to the community;
 - (c) To see that the burden of financing the municipality, through taxes, charges etc., is fairly apportioned;
 - (d) To ensure that the municipality's resources are used in accordance with its priorities;
 - (e) To see that resources are used legally and honestly;
 - (f) To provide those who run the municipality with adequate information for discharging their responsibilities.



12. All too often, financial management fails on some, or even all, of these tests. Municipal government is undermined by weakness in its financial management. A look at the finances of a particular municipality might reveal that:
- (a) *It is in debt:* suppliers' invoices take three months or more to get paid; income tax is deducted from staff salaries but not paid over to the central government; the electricity corporation is owed large sums for street lighting; the bank account is overdrawn to the limit of its credit for most of the year;
 - (b) *It is basically under financed:* revenue has not grown at a rate commensurate with the demands being made on the municipality for extra spending - demands arising from inflation, from growth in population, or from an expanding economy which puts more traffic on the municipal roads, uses more water, creates more refuse than before;
 - (c) *The fiscal burden is unfairly distributed:* large properties are significantly undervalued for tax, people dependent on public standpipes pay more per litre to water carriers than those with house connections;
 - (d) *Patterns of expenditure do not reflect a defensible set of priorities:* in particular, spending on civic and administrative overheads is rising more sharply than that on direct services to the public;
 - (e) *Little concern is shown for cost-effectiveness or the avoidance of waste:* staff productivity is low through lack of training or equipment, water pressure inadequate because of serious leakage, machinery in disrepair through lack of simple, regular maintenance.
 - (f) *Financial controls are ineffective:* there is suspicion of collusion between property owners and assessors in under valuation, between clerks and drivers over misuse of petrol, between engineers and contractors over substandard construction;
 - (g) *Financial information is too late, too little or too obscure:* managers are unable to keep strictly to their budgets or adjust them sensibly to changes in circumstance.

D. The financial components of an urban development programme

13. Fast-growing cities often need public action on a broad front, to open up new areas for settlement, to arrest decay in the historic city, to extend infrastructure, to rehabilitate existing networks, to expand services and to improve operating efficiency. All this needs finance, and much or most of the finance might have to be found within the city, by local taxation, consumer charging, private-sector contributions and waste elimination. Development will depend upon improving the efficiency of the main urban public agencies.
14. A comprehensive urban development programme will, therefore, have several financial measures, which might include:
- (a) Generating capital finance for investment purposes (e.g., trunk roads, reservoirs, pipelines);
 - (b) Increasing expenditure on operation and maintenance, and on essential staffing, supplies and equipment (e.g., refuse trucks, buses);
 - (c) Diverting resources from unnecessary and extravagant forms of expenditure;
 - (d) Increasing local cost-recovery through increased taxes and charges or effective assessment and collection of property rates;
 - (e) Reforming financial relations between levels of government and different public agencies, to ensure a fair distribution of costs, to provide for any justifiable transfer of resources to poor areas and to avoid one agency's activities imposing insupportable costs on another;
 - (f) Improving budgetary control, financial information and audit, to ensure that financial targets are met.

15. These measures are likely to be interdependent. Financial reform, as with urban development generally, usually needs an attack on several fronts. There has to be a strategy, just as there might need to be a strategy for physical growth or urban transport. Its components will need to include:
 - (a) A thorough analysis of the municipality's financial performance, so that the nature and extent of its financial weaknesses are understood;
 - (b) A comprehensive set of measures which tackle the various defects together (including all the elements detailed in the previous paragraph);
 - (c) A planned approach which seeks to implement improvements over time, so that executive capacity and political support are not overstrained;
 - (d) A sense of commitment by central and local government to the planned reforms.
16. The first stage of reform is that of analysis, i.e., of understanding the problems. This is illustrated by the following chapter in stage I of the case study.

II. CASE STUDY: DAGPUR MUNICIPAL COUNCIL

Stage I: Analysis and Strategy

Timing: Beginning of 1989

Trainers' notes

Stage I of the case study is designed to open up all the major issues of municipal financial management, which will be dealt with individually later in the curriculum. On occasion this exercise has been used as the very first item in a seminar programme so that participants establish an agenda of issues through a case study and a participative style is developed from the outset.

The exercise is also intended to illustrate a particular process of analysing the financial performance of a municipality, namely by looking at trends in revenue and expenditure over time, and making comparisons at constant prices per capita. This is necessary in order to understand the extent to which the municipality is coping with the impact of inflation and population growth. Train may have to ensure that all participants understand how to convert figures from current to constant prices before the groups commence work.

The major problem issues become clear once the numerical analysis is done. Financial trends should be related by groups to the details of service performance given in the introductory text; e.g., the deterioration in refuse collection and road maintenance can be associated with a decline in real per capita expenditure on these functions. One issue that may escape attention is the nature of budgetary control Table 1 shows that whereas expenditure has been exceeding revenue (and leading to the accumulated deficit), it has not exceeded budgeted levels. This illustrates a common weakness of budgetary control, which is usually devoted to keeping the expenditure within legally authorised limits, but not within the limits of realised (as opposed to estimated) revenue.

A. Introduction

Assignment

1. Urban development has usually been associated with the expansion of services and infrastructure through capital investment, but improved operation and maintenance of existing services might be equally important to the welfare of the urban population, and both lines of development might be dependent on improving the efficiency of the public agencies responsible for operating and expanding services. The financial components of an urban development programme might include:
 - (a) Capital investment;
 - (b) Increased expenditure on operation and maintenance, and on essential staffing, supplies and equipment;
 - (c) Diversion of resources from unnecessary, wasteful forms of expenditure;

- (d) Increased recovery of costs through higher taxes or charges, or improved assessment and collection procedures;
- (e) Reformed financial relationships between levels of government and different public agencies;
- (f) Improved budgetary control and financial information to ensure that financial targets are met.



2. To illustrate this comprehensive approach, readers are asked to read the attached case study of Dagpur, an imaginary city but one with characteristics of a number of real Eastern African cities. They will need to analyse the financial tables, looking at trends in revenue, expenditure and overall financial performance. It would be advisable to reproduce the tables in per capita terms at constant prices, to show how far revenue and expenditure have kept pace with inflation and the demands consequent on population growth.
3. Readers are asked to imagine that they are part of a governmental team framing a medium-term urban development programme for Dagpur and to identify:
 - (a) The main financial issues which need to be tackled.,
 - (b) The financial reforms which need to be included. “Financial reform” may be taken to include any of the components listed in paragraph 1.

B. General description

Location and population

4. Dagpur is the second major city in a South Asian country. The national population was 95 million in 1988. A number of small urban areas are distributed relatively evenly over the country.
5. The City of Dagpur has a resident population of 1.5 million people, and another 300,000 travel in daily from surrounding rural areas for work. Dagpur is located in low-lying marshland surrounding a natural harbour at the mouth of the country's major river. It is the largest port, handling some 60 per cent of external trade. It was formerly the national capital, but this was moved to a new inland site some 25 years ago.
6. Apart from the port, the city has major industries including textiles, cement, oil refineries and food processing, and remains the headquarters of many commercial firms. Average densities range from 200-500 persons per hectare. Owing to growing pressure on agricultural land in the country's interior, some political strife in border areas, natural growth and attractions of city employment, the city's population has been growing at the average rate of 5.2 per cent per annum over the past decade.

Institutions

7. Dagpur has a Municipal Corporation (the DMC). It is governed by a council, consisting of 33 members elected from individual wards. They, in turn, elect the mayor. The Council's permanent staff is headed by a Commissioner, seconded from the civil service, who is assisted by a number of chief officers including a treasurer and engineer. The Corporation is responsible for roads, street lighting, footpaths, primary education, markets, fire protection, water supply, and sewerage, public health, refuse collection, medical services, parks, libraries and recreational facilities.

8. The Dagpur Development Authority is responsible for planning the city and peri-urban area, and also for improving housing and developing land. It is a parastatal organization; the members of the Authority are appointed by the national government, though they include the Mayor of Dagpur. Separate public corporations under the control of the central government are responsible for electricity, public transport, posts and telecommunications, the port and the railways.

C. City services

Water supply and sanitation

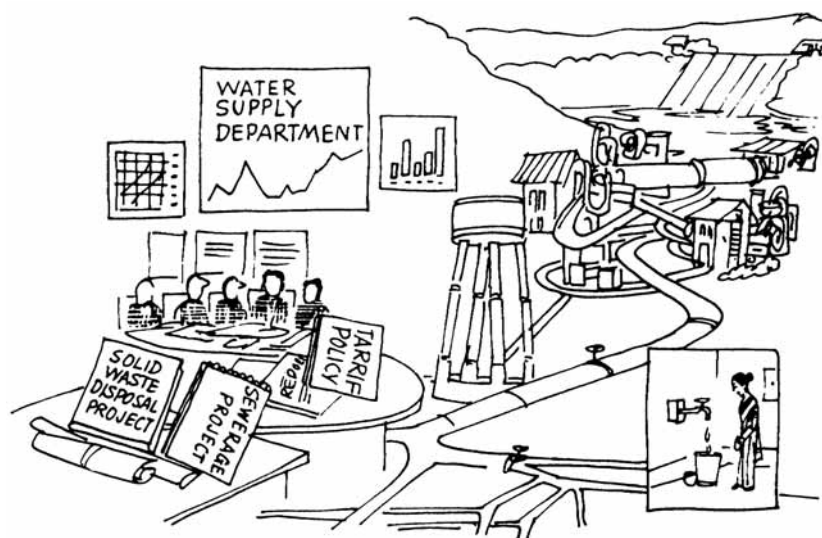
9. Water supply and sewerage are the responsibility of the Dagpur Water and Sewerage Board, a self-financing subsidiary of the Municipal Corporation. The main source of water is an inland lake some 50 miles from the city. Rapid population and industrial growth have outstripped the capacity of the present plant, last augmented in 1959. As a result, water pressure is low, and some areas receive supplies for only four hours a day. It has not been possible to provide piped water to some new outlying suburbs, which are supplied by tubewells and water trucks. The groundwater is brackish due to the coastal location and the tubewells are only a temporary solution to demand. Only about half the city is connected to the sewerage supply. Most of the rest is served by septic tanks and nightsoil cartage, but some squatter settlements are totally unserved by municipal sanitation and the residents resort to open drains and channels.

Roads

10. The Municipal Corporation is responsible for all roads in the city limits. Although the basic network of roads has been sufficiently developed to avoid major traffic congestion, maintenance is a serious problem, due both to the marshy and low-lying nature of the terrain and to the rapid increase in heavy traffic, particularly to the port. There has been a marked deterioration in surfaces in recent years.

Solid-waste disposal

11. The Council is responsible, through a specific Department, for solid-waste collection and disposal. The system is irregular and inadequate, because the vehicle fleet has not expanded in line with the city's growth. Moreover, expenditure on new vehicles has been cut back in recent years, and over half the fleet is near or over its normal working life, resulting in frequent breakdowns.



Education

12. Free primary education is provided by the Municipal Corporation with the help of a grant from central government towards recurrent costs. Secondary schooling and further education are provided by a mixture of central-government and private bodies. New primary schools are constructed by the Council but again with grant aid and some voluntary contribution. A rapid expansion has been necessary, both to meet the city's population growth and to implement a national policy of providing school places for all children of primary-school age. Because the city's schools are generally better, many children come into them from adjoining rural areas. Staffing is adequate, but

there are occasional shortages of books, and facilities, such as laboratories, have only been developed with parental help in schools in wealthy suburbs.

Health services

13. Central government maintains a specialist teaching hospital attached to the university, and there are two other hospitals run by charitable foundations. The Municipal Corporation runs a maternity hospital and a network of neighbourhood health centres and clinics. Its facilities are well staffed, but are frequently handicapped by shortages of money for drugs and basic equipment, such as sheets and bandages, etc. The Public Health Department runs the hospitals, public health centres, clinics and preventive services.

Housing development

14. Rapid population growth has led inevitably to shortage of housing, overcrowding and illegal squatting. The Development Authority has been developing new residential areas for some 20 years on a commercial basis, building on substantial amounts of public land on the periphery of the historic city. Most of these areas have been for middle-class and upper-class residents. The Authority has been successful in generating surpluses of its plot sales for investing in further development, but there have been financial problems for the Municipal Corporation, however, which has to provide schools, clinics and other community facilities in the new estates. Moreover, it has had to take over most of the maintenance of the infrastructure some years before the purchasers of plots have finished building houses, shops etc., and have started to pay property tax.
15. The Development Authority has recently engaged in upgrading services in shanty areas. Squatters are provided with basic services, improvement loans and security of tenure, but are obliged to pay a consolidated service charge to the Authority. The revenue from this charge is supposed to be divided to cover the operating costs of the Water and Sewerage Board, the operating costs of the Municipal Corporation and the recovery of the Authority's own capital outlay. Recovery so far has only been approximately 55 per cent of the amount due, and the Authority is giving first priority to repayment of its own external debt for the improvement projects.

Public transport

16. Public transport services are provided by DCPTC, a State-owned company with 70 mostly dilapidated, buses. The company has to rely on government subsidies and, because of a general shortage of funds, has not been able to renew or properly maintain its rolling stock. As a consequence, only half the fleet is regularly operating, which results in bus overloading and excessive waiting times. Faced with much complaint about the quality of the service, the government has rejected proposals from the company's directors for an increase in fares which have been static since 1978. In view of this public transport shortage, the government has tolerated the growth of illegal taxis and converted vans which transport an estimated third of the city's passengers (with fares roughly 50 per cent higher than those of DCPTC).

D. LCC Finances

Revenue and expenditure

17. Details of revenue and expenditure of the DMC over the past five years (1984-1988) are given in tables I-III annexed.

Tax revenues

18. The DMC collects three taxes, viz.,
 - (a) *Property tax* is levied on the rental value of land and buildings. Yields have been restricted by a number of factors:
 - (i) There has been no general revaluation since 1974. Assessments are based upon the evidence of actual rent payments or the assessors' judgement of potential rental based upon physical visitation;
 - (ii) The DMC's tax rate (17.5 per cent) has reached the maximum level permitted by law. Requests to the government to increase the rate level or carry out revaluation have not been successful so far. (The government is thought to be reluctant to increase taxes with municipal elections due in 1989 and a general election in 1990);

- (iii) Collections raise approximately 73 per cent of demand. Collectors experience difficulty in tracing the owner of buildings with multiple occupation. The automatic penalty for late payment is a surcharge of 10 per cent per annum. Legal procedures in case of default are slow, and the courts unsympathetic. The DMC is reluctant to apply for the ultimate sanction of distraint on goods or eviction.
- (b) *Motor vehicle taxes.* The annual tax on all vehicles registered in the city accrues to the DMC. The tax is based upon a formula assessment of value, taking into account weight, age, engine capacity and usage. The formula is revised every year by the national Government. There is continuing controversy over the assignment of the motor vehicle tax revenues to the DMC. Surrounding local authorities complain that the bulk of the commercial vehicles using their roads pay tax to the DMC, not to themselves, since they are owned by companies with headquarters within the city. The DMC has a counter-argument that many of the private cars (and taxis) commuting into the city by day are registered in outlying municipalities. The Ministry of Finance has argued for central collection of the tax to avoid these conflicts and has offered a compensatory grant at the level of the current collections. The Ministry of Local Government has, so far, resisted this proposal on the local authorities' behalf.
- (c) *Entertainment tax* is collected at the rate of $33\frac{1}{3}$ per cent on the value of cinema tickets and 15 per cent on entry fees for theatres, sporting events and other commercially-run entertainment. Control is maintained through the central printing and supply of tickets by the DMC.

Grants

19. The DMC receives a grant, which is intended to meet 50 percent of the cost of primary education. This consists of two elements. The first meets half the cost of teachers' salaries, calculated on an establishment which increases each year, to take account of school expansion and national salary settlements. The second element consists of a capitation grant per pupil, to meet non-teaching costs. The capitation element is reviewed every five years, the current level having been fixed in 1984. DMC also receives capital construction grants for new schools based upon a national standard formula. The grant is meant to meet two thirds of the cost, but the amount equals as little as 30 per cent of the true costs in Dagpur because of its above-average land costs.

Other revenues

20. Major categories of other revenues are:
 - (a) Licenses for registration of shops, hotels, trades etc.;
 - (b) Rent of markets and other municipal properties;
 - (c) Charges for free-paying services and hospitals, sports centres etc.;
 - (c) Income on investments.

Capital finance

21. Most capital expenditure is financed from revenue. However, loans for construction of roads, markets and medical units are available from a national Municipal Development Bank. As already mentioned, grants contribute to school building.

Financial position

22. A summary of the financial performance for the DMC over the five years 1984-1988 is given in table I. The Corporation's balance sheet at 31 December 1988 is given in Table IV.

Assignment

23. Readers should now undertake the analysis of problems and identification of objectives for reform set out in paragraphs 2 and 3.

Appendix A

FINANCIAL OPERATION OF DMC

Table I
DMC total revenue and expenditures 1984-1988 (millions of rupees)

ITEM	1984		1985		1986		1987		1988	
	Approved	Actual	Approved	Actual	Approved	Actual	Approved	Actual	Approved	Actual
Recurrent revenue	220	200	260	236	300	272	350	308	380	330
Total revenue	234	210	276	252	320	292	370	324	402	350
Recurrent expenditure	144	140	180	174	210	200	240	236	270	264
Capital expenditure	90	80	96	92	110	78	130	100	132	96
Total expenditure	234	220	276	266	320	278	370	336	402	360
Note: Surplus/Deficit balances incurred during a financial year are not carried forward into the Revenue or Expenditure for the following year, but accumulated in the General Fund Balance.										

Table II. DMC revenue, 1982-1986 (millions of rupees)

	1984	1985	1986	1987	1988
Recurrent revenues:					
Property tax	85.0	90.0	92.0	94.5	95.0
Motor vehicle tax	55.0	73.0	89.5	108.0	125.0
Entertainment tax	18.0	20.0	27.0	29.0	31.0
Licence fees	11.0	13.0	18.0	24.0	25.0
Rent and charges	7.0	9.0	8.0	9.5	10.0
Interest	4.0	5.0	5.5	6.0	5.0
Education grants	15.0	19.0	25.0	29.0	32.0
Miscellaneous	5.0	7.0	7.0	8.0	7.0
Sub-total	200.0	236.0	272.0	308.0	330.0
Capital receipts:					
Loans	3.0	6.0	5.0	3.0	8.0
Grants	6.0	8.0	13.0	10.0	10.0
Sales of capital assets	1.0	2.0	2.0	3.0	2.0
Sub-total	10.0	16.0	20.0	16.0	20.0
Total	210.0	252.0	292.0	324.0	350.0

Table III. DMC expenditure, 1984-1988 (millions of rupees)

	1984	1985	1986	1987	1988
Recurrent revenues:					
General administration	5.0	8.0	9.5	12.5	18.0
Financial administration	55.0	73.0	89.5	108.0	125.0
Education	37.0	49.0	61.5	72.0	84.0
Public health	25.0	33.0	37.0	47.0	54.0
Solid-waste management	20.0	24.0	25.0	26.0	26.5
Roads and lighting	33.0	38.0	42.0	48.0	48.0
Fire	4.0	4.0	5.0	6.0	7.0
Libraries	3.0	3.0	3.0	4.0	4.0
Recreation	6.5	7.0	9.0	11.0	11.0
Social welfare, admin. & miscellaneous services	2.5	3.0	3.0	3.0	4.0
Sub-total	14.0	174.0	200.0	236.0	264.0
Capital expenditure:					
Education	15.0	25.0	30.0	30.0	35.0
Public health	23.0	28.0	16.0	23.0	20.0
Solid-waste management	7.0	5.0	2.0	2.0	2.0

Roads and lighting	20.0	25.0	23.0	22.0	16.0
Fire	5.0	2.0	1.0	5.0	5.0
Libraries	2.0	-	1.0	2.0	2.0
Recreation	4.0	3.0	2.0	9.0	8.0
Social welfare admin. & miscellaneous services	4.0	4.0	3.0	7.0	8.0
Total capital expenditure	80.0	92.0	78.0	100.0	96.0

Table IV. DMC balance sheet, 31 December 1988			
Liabilities	Rs. (thousands)	Assets	Rs. (thousands)
Long-term loans outstanding	40,300	Fixed assets	119,700
Capital discharged	79,400	Cash and Bank	4,075
Deposit: income tax deductions	13,210	Investments	25,700
Employees Superannuation Fund	11,106	Sundry debtors	2,120
General fund balance Dr	18,054		

Table V. Retail Price Index, 1984-1988 for calculating constant value of revenue and expenditures (as at 1 January)	
1984	100
1985	115
1986	126
1987	136
1988	143

Appendix B

DAGPUR MUNICIPAL CORPORATION HOUSING DEPARTMENT FINANCE

1. Rental housing

- (a) The Housing Department operates a rental housing stock of 6100 units, comprising

Two-roomed units	3,000
Three-roomed units	2,600
Four-roomed units	500

- (b) The housing was constructed between 1970 and 1977 from loan finance repayable over 20 years at average interest rates of 8 per cent. Unit costings in rupees in 1988 were:

	Two-roomed	Three-roomed	Four-roomed
Debt service	2,700	3,600	4,500
Estate operation and maintenance	1,000	1,400	1,750
Total cost per unit per annum	3,700	5,000	6,250

- (c) Total expenditure in 1988 was:

Type of unit	Number of units	Cost per unit (rupees)	Total (rupees)
Two-roomed	3,000	3,700	11,100,000
Three-roomed	2,600	5,000	13,000,000
Four-roomed	500	6,250	3,125,000
			27,225,000

- (d) Rents were last revised in 1982. They are as follows:

Type of unit	Monthly rent (rupees)	Total per year (rupees)
Two-roomed	250	3,000
Three-roomed	425	5,100
Four	575	6,900

- (e) Rental income in 1988 was as follows:

Type of unit	Number of units	Rent per year (rupees)	Total (rupees)
Two-roomed	3,000	3,000	9,000,000
Three-roomed	2,600	5,100	13,260,000
Four-roomed	500	6,900	3,450,000
Sub-total			25,710,000
Less temporary vacancies			507,000
Sub-total			25,203,000
Less rent in arrears			1,261,650
Total income 1988			23,941,350

2. **Tenant-purchased housing**

- (a) Between 1978 and 1982 the DMC constructed 400 houses for tenant purchase. They were financed by 12-year loans at 12 per cent interest.
- (b) The Corporation's expenditure is confined to debt service, which averages Rs 48,000 per annum per unit. Maintenance is the responsibility of the tenant-purchasers. Expenditure in 1988 was:

400 houses at Rs 48,000 per annum = Rs 19.2 million

- (c) Purchasers pay installments of capital interest to the DMC over the same period as the DMC's external debt. Annual installments average Rs 50,000 (allowing the DMC a small margin for its administrative costs).
- (d) Income in rupees in 1988 was as follows:

400 houses at an average of Rs 50,000	20,000,000
Less installments in arrears	195,000
	19,805,000

3. **Site-and-service schemes**

- (a) Since 1980 DMC has leased 1,000 serviced plots for tenant purchase. Purchasers are responsible for constructing their own houses and for maintenance.
- (b) DMC has financed this scheme by an external loan repayable over 15 years at 10 per cent. Debt-service costs average Rs 1,400 per plot, with a total expenditure in 1988 of Rs 1.4 million.
- (c) Purchasers repay capital and interest over the same period as the external loan with a small margin for DMC's administrative costs. Repayments and interest average Rs 1,500 per plot per annum.
- (d) Income in rupees in 1988 was:

1000 plots at Rs 1,500	1,500,000
Less interest in arrears	31,000
	1,469,000

4. **Overall income and expenditure (rupees): 1988**

	Expenditure	Income
Rental housing	27,225,000	23,941,350
Tenant-purchase housing	19,200,000	19,805,000
Site-and-service scheme	1,400,000	1,469,000
Total	47,825,000	45,215,350

5. **The housing fund**

- (a) The Housing Department's operations are intended to be self-financing and are conducted through a Housing Fund, separate from the Corporation's General Fund. This separation relates to the ledger accounts, but not to the bank and cash balances, which are integrated with the other operations of the Corporation.

- (b) At the beginning of 1988, the Housing Fund had an accumulated deficit of Rs 6,233,337. This deficit increased to Rs 8,842,987 at 31 December 1988.

PART TWO: REVENUE GENERATION

III. REVENUE GENERATION: INTRODUCTION

Trainers' note

This chapter introduces discussion of revenue generation by establishing the basic distinction between taxing and charging as methods of financing services. It makes the normal distinction between public and private goods, and introduces the concepts of equity and efficiency. It also makes a further distinction between financing by national and local taxation (national taxpayers being involved both through direct central government funding and transfers to local government).

It will normally require one session to discuss these issues and ensure that these basic principles are grasped by participants. The subject matter can be illustrated by inviting course members to describe how certain services are financed in their own countries or cities such as water supply, refuse collection or education, and analyse the possible rationale for these practices. Education is a particularly interesting case for discussion as there are often examples of considerable variation in the use of fees, and the divisions of responsibility between central, provincial and local levels of government for varying levels of schooling.

A. Introduction

1. Municipalities in most developing countries have to meet costs of constructing and maintaining services, when costs are rising because of inflation, and demand is expanding because of increasing population. The task is to raise adequate revenue for both capital investment and recurrent expenditure - employment of staff, operation and maintenance of facilities, and servicing of debt. Such revenue will only be adequate if it grows with the demands made on it, i.e., in line with rising costs.
2. However, raising enough revenue is not the only task. Raising it fairly is also important. Indeed, the two tasks are interrelated, because unfairness is, in itself, an obstacle to revenue collection; inequity increases resistance, if people are being asked to pay more in taxes or charges than they can afford, or feel that they are bearing an undue proportion of the burden, compared with others.

B. Who pays?

3. Some public services are financed by general taxation, and others by direct charging to the consumer. In the one case, every taxpayer has to contribute, regardless of his or her use of the service; in the other case payment depends directly upon provision and use. Looking purely at financing by taxation, there is a further distinction. Some services are paid for by the national taxpayer, through:
 - (a) Central government expenditures;
 - (b) Subsidies to public enterprises;
 - (c) Grants to local authorities.

Others are paid by the local taxpayer through:

- (a) Local taxes;
- (b) Local surcharges on national taxes.

C. Taxing or charging

4. What distinguishes a service financed by consumers from one funded by taxpayers? There are three important considerations or factors, which bear on the financing method to be followed. They are:
 - (a) Fairness;
 - (b) Economic efficiency;
 - (c) Administrative convenience.

Fairness

5. The first consideration is fairness: broadly speaking, those who benefit should pay. If a service or, to be specific, the unit of a service benefits one person exclusively, that person should pay for it through a consumer charge. Examples might be a domestic electricity supply or a telephone extension. If a service benefits everyone collectively and indiscriminately, as does defense or disease control, the cost should be borne by taxation.
6. Many services fall between these two categories (known, respectively, as private and public goods). A service might benefit one person particularly but, nevertheless, have impacts on others; such impacts are known as externalities and may be positive or negative. Domestic water supplies benefit the individual household, and their cost can be measured; but they reduce communicable disease and, therefore, have wider benefit. Where the benefits are both private and public, a consumer charge subsidized from taxes might be justified, if it enables or encourages a large number of people to use the service. The mix of charge and subsidy should depend upon the balance of private and public benefit. Where the impacts are negative - for example, the congestion or pollution caused by city-centre parking - the charge can be punitive, i.e., above the level of the service cost, so as to discourage consumption.
7. There is a further aspect of fairness. Some services might be largely private goods with little externality, but be, nevertheless, regarded as “merit goods”, i.e., basic human needs. Subsidization or, even, total financing from taxation might be regarded as right, to enable consumption by those who are too poor to meet a full consumer charge. This is often applied to primary education, medical care and, even, housing, the extent of subsidy depending on what an economy can afford and what contemporary values regard as a minimum standard or right. Critics argue, however, that such subsidization should be directed to general income support, so that the poor can exercise choice over the services they use.

Economic efficiency

8. A second consideration is economic efficiency. Where individuals are free to choose how much of a service they consume, charging enables the price mechanism to play a crucial role in allocation of resources through:
 - (a) Rationing demand: on the basis that those who value the item or service most will be prepared to pay most;
 - (b) Providing the incentive to avoid waste;
 - (c) Providing signals to the supplier concerning the scale of production;
 - (d) Providing the resources to the supplier to increase supply.

Without a price, demand and supply are unlikely to be brought into equilibrium, and, thus, the allocation of resources will not be economically efficient. Water supplies and medicines are examples of costly goods for which charging is particularly supported on efficiency grounds. The problem, however, is that the market mechanism does not act perfectly. In many cases, the government is a monopoly supplier and might be tempted to charge more than the necessary cost of a service, either to reallocate resources or because of inefficient provision.

Administrative convenience

9. A third factor is administrative convenience. Charges are, often, an easier form of revenue to collect than taxes, because they can, in most cases, be enforced through cutting off a service.

D. National or local taxing

10. How does one distinguish between financing from national and local taxes? There are several arguments for fiscal decentralization, i.e., for paying for services by local rather than national taxes:
 - (a) A service might be a public good but may, nevertheless, benefit only those living in a particular locality;
 - (b) Local knowledge and choice might be the most accurate guide to what services are needed, leading to efficient use of resources;
 - (c) A careful and honest use of resources might result from the direct and visible accountability of officials to a local electorate;
 - (d) Political equilibrium might be secured, by allowing some division of power between central and local governments over choices of levels and directions of taxing and spending.
11. However, there are also arguments for national financing:

- (a) A service might be clearly in the national interest: it might be impossible to distinguish between the benefits derived by individual localities and by the country as a whole;
- (b) Where comparable standards of service are desirable, national financing might be necessary, to avoid disparities arising from differences in local wealth and taxable capacity;
- (c) Technical considerations make it difficult to levy some charges at local rather than national level (customs duty or corporate profits taxes, for example).

However, again, there are limitations to central government's ability to prescribe exactly how a service is best to be provided in each area or to manage it efficiently. Hence, the frequent compromise of financing a service from national taxes but administering it through transfers to decentralised authorities.

12. So the costs of urban infrastructure and services are recovered basically from three sources, *viz.*,
 - (a) From the consumer, through user charges;
 - (b) From the local taxpayer, through municipal taxes (or provincial taxes, where conurbations have provincial status);
 - (c) From the national taxpayer, through direct governmental expenditure, grants or revenue-sharing.

These are concentric rather than exclusive groups; critical attitudes to grants, for example, conveniently overlook the extent to which local taxpayers are, also, national taxpayers. Moreover, the demarcations between the three categories are not always clear. Specific-purpose property taxes, for water, conservancy etc., usually fall only on consumers, though not in proportion to consumption; revenue-sharing based on derivation is also local taxation in substance, though not in administrative or legal form.

13. Municipalities also receive loans, often for capital expenditure. However, borrowing is really a transitional form of finance, not a basic type of cost-recovery, since capital and interest will eventually be paid from charges or taxes. Borrowing might contain or conceal an element of grant, where soft terms or default are involved.
14. The remaining chapters in this Part will look at the various sources of revenue in turn.

IV. LOCAL TAXATION: GENERAL CONSIDERATIONS

Trainers' notes

This chapter deals with local taxation. Three sections describe the types of tax levied by governments in different countries, classified under taxes on property, income and expenditure. The second half of the chapter identifies the major criteria for evaluating local taxes - adequacy and elasticity, equity, administrative capacity, political acceptability and suitability for local administration - and discusses their application to the individual types of tax described earlier.

The chapter assumes that participants will be interested in ways of improving their local tax systems or even changing the local tax base altogether. The object of the chapter is to acquaint them with the full range of available options as shown by international experiences together with the framework for assessing their potential suitability. The final section, on international experience, emphasizes that financially-strong urban governments tend to exploit taxes which are buoyant and do not arouse severe political resistance.

How this chapter is used depends upon the time available and the range of experience of local taxes represented among the course participants. It will be important to go through the evaluation criteria in open session and ensure that they are fully understood. In an international course, participants may then be invited to describe the taxes levied locally in their own countries and analyse them according to the criteria. A single-country course may simply analyse the existing local tax base and discuss the possibilities of reform. The important thing in either case is to get course members thinking analytically about the local tax base - about how the burden of taxation is distributed and its fairness - and to be realistic about the potential of any given tax base.

A. Introduction

1. Local taxation can be interpreted in four ways, *viz.*,
 - (a) Taxes which municipalities impose by their own legislation;
 - (b) Taxes levied under national legislation but with tariffs determined by municipalities (either freely or within statutory limits);
 - (c) Taxes which municipalities assess and/or collect;
 - (d) Taxes which are levied and administered by central government, but whose proceeds are given to, shared with, or surcharged by municipalities.

Discussion in this Manual is concerned with all these categories. A tax source is of interest if local authorities specifically derive revenue from it, whether or not they levy or administer it, or decide its tariff. However, the Manual is also concerned with the suitability of taxes for levy or administration by municipalities, since they often wish or are expected to play a part in raising the money they spend.
2. If the existing local tax base is unsatisfactory, *i.e.*, it is not yielding sufficient revenue, or its incidence is perceived as unfair, reform can either concentrate on improving administration of the existing taxes or search for other local taxes. It can, of course, seek to do both. This chapter will look primarily at different forms of local tax and their advantages and disadvantages. Taxes will be examined under three headings:
 - (a) Taxes on property;
 - (b) Taxes on income;
 - (c) Taxes on expenditure.

These will be described in turn and then evaluated according to general criteria.



B. Urban property taxes

3. Taxes on land and buildings are the most common form of direct revenue for local authorities in urban areas. They are normally general-purpose revenues, contributing to a range of urban services, particularly to physical infrastructure, such as roads, drainage, and refuse-collection. Property-tax valuations, however, are also used frequently as a base for special taxes or charges, to meet the costs of individual services such as water supply or street lighting.

1. Coverage

4. Taxes on land and/or buildings are normally imposed on all kinds of property - commercial, industrial, institutional and residential - but there are usually some exemptions, often including places of worship and charitable institutions. Governmental properties are customarily exempt, but a grant is often paid to local authorities in lieu of the tax. Some countries exempt properties below a stipulated value; this might be a legal exemption or, simply, an administrative or political choice to ignore squatter settlements etc.

2. Tax assessment

5. Property taxes are normally assessed by applying a tariff (a percentage) to a valuation. Tariffs might be prescribed by law or left to the discretion of the local authority. Such discretion may, again, be restricted by statutory minimum or maximum levels. The tariff in any one locality is normally a uniform percentage; however, it may differentiate between types of property, e.g., being heavier on industrial or commercial than on residential properties, or higher on rented buildings than on those occupied by the owner.

3. Valuation

6. Valuation may be based on:
 - (a) Annual rental values, i.e., the potential income to the owner from renting a property (whether it is actually rented or not);
 - (b) Capital improved site values, i.e., the potential market sale price of the land or the land and its improvements (meaning the buildings, infrastructure and amenities developed on the land);
 - (c) Unimproved site values, i.e., the potential market sale price of the land as if it were vacant, disregarding any actual development on it.

The differences are described below.

Annual rental values

7. Rental values are normally calculated on the basis of "a fair rent", after deducting a standard percentage representing the notional cost of repairs and maintenance. In theory, rental values are closely linked to income and, therefore, provide a fair and readily explained basis for taxation. This assumes, however, that there is a substantial and fair rental market, and that the valuers have clear evidence of prevailing rent levels. Rental values may be hard both to calculate and to justify where:
 - (a) The private rental market is relatively small (e.g., in the United Kingdom), or difficult to determine as in most developing countries;

- (b) Rent levels are subject to violent fluctuation or severe distortion by conditions of scarcity;
- (c) Rent-control legislation is in force which might cause a substantial disparity between official rents used for purposes of valuation and those really paid by tenants.

The most obvious way of assessing rental values is to extrapolate from a large-scale survey of actual rents paid for different types of property in different localities. Where such evidence is difficult to obtain, rental valuations are often based on a notional percentage return upon capital values. In such cases, the distinction between annual-rental and capital-value taxation becomes somewhat artificial.

Capital values

8. Assessment of capital improved site values may be based upon one of three methods of calculation, *viz.*,
 - (a) A comparison of actual sales of different types of property in different localities;
 - (b) A capitalization of rental incomes (assuming a current market rate of return upon investment of capital but allowing for depreciation);
 - (c) Current costs of the land plus current replacement costs of the buildings.

The most common method is extrapolation from comparable sales.

9. Calculations to arrive at capital values based on comparable sales should include the following variables:
 - (a) Size of plots, with weightings for depth and frontage;
 - (b) Topography (particularly for industrial/commercial uses);
 - (c) Actual land use or permitted land use under planning legislation;
 - (d) The form of land tenure;
 - (e) Standards of construction, including types of materials, age, facilities (lifts, sanitation, heating, garages etc.), quality of finish and the number of storeys (which may be treated as an increasing or reducing factor according to planning policy);
 - (f) Location, including infrastructure, amenities (or, negatively, nuisances) and general neighbourhood quality.

Calculation of these variables provides a set of coefficients which are then applied to the square metrage of the land and/or the buildings. The range and degrees of variation taken into consideration (and, thereby, the accuracy of the whole valuation) must, however, depend upon the technical capacity of the valuation staff. It is normally desirable to compare evidence on current values from a variety of sources, such as official records of land transfers, owners' declarations, estate agents and brokers' estimates and local administrators' judgements.

Unimproved site values

10. In some countries, capital valuations are based upon "unimproved site values", i.e., the value of the land and its best possible development, not its current state of development. This system has the notional advantage of encouraging owners to develop their land, since they will not incur any more tax in doing so; indeed, the taxation penalizes any underdevelopment. It also ensures that local authorities do not lose revenue through any lack of potential development. These potential advantages might not be realized in practice for a number of reasons:
 - (a) Property-tax liability is only one and, rarely, the most important of the factors which influence the investment decisions of a landowner;
 - (b) Unimproved site valuation requires evidence of "the best potential development" of a particular plot, which is hard to establish;

- (c) The incentive element can only work on the assumption that an owner either develops his land or vacates it, so that effective application of this principle would lead to the concentration of desirably located property in the hands of those with the greatest capital.

The application of unimproved site valuation is often modified in practice, to offset the difficulties and potential hardships which have been described. This means assessing property below the value of its “best potential development” or keeping tariffs at a low, effective rate. Either method, however, restricts the real incidence of property tax on expensive developments, leading to a considerable loss of potential revenue. Some countries have attempted to find a reconciliation between the advantages and disadvantages of this system, by imposing a dual tariff on the values of a site and of its improvements, with a heavy weighting on the site value.

C. Taxes on income

- 11. Income tax is almost invariably a national-government tax source, jealously guarded by the central treasury. Nevertheless, there are a number of ways in which local governments, in different parts of the world, derive revenue from the taxation of income. These will be described in the following paragraphs.

Separate local income taxes

- 12. In a few cases, local governments are permitted by law to impose an income tax which is assessed and collected by themselves and which is parallel to but distinct from the national income tax. An entirely separate, tax administration is used, and calculation of local, liability is not related to the national system of rates, personal allowances etc. Local authorities in Finland have this power. The main example, however, is in the United States of America, where the Federal and state Governments have concurrent powers of taxing income; in several states, the cities and counties are also permitted to levy a separate income tax, so that, in New York City, for example, a citizen will be paying a separately assessed and collected tax on income to three levels of government.

Surcharge on national income tax

- 13. A more common system than a separate tax is for local authorities to impose a surcharge on the national income tax, i.e., a percentage addition to the tax liability as assessed and collected by the central government. Local authorities in Japan and a number of European countries - Belgium, Denmark, Italy, Norway, Sweden and Switzerland - have this power. A rate of surcharge may be:
 - (a) Fixed by law, as in Switzerland;
 - (b) Fixed by each local authority within a range prescribed by law (as in Belgium, Italy and Norway);
 - (c) Prescribed by each local authority without limit, as in Denmark or, by each of three levels of local government, as in Sweden.

The surcharge is normally a flat percentage rate charged on taxable income (i.e., net of personal allowances etc.), but a progressive tariff operates in Switzerland.

Assignment of national income tax

- 14. In several countries, the central government assigns, to local authorities, a fixed percentage of the national income tax collected. In Germany, the Philippines, the Republic of Korea and Turkey, the percentage pertains to the tax collected within the municipality's boundaries; in Brazil, the Netherlands and Nigeria, the percentage share is pooled and distributed by formula.

A tax on professions

- 15. In certain countries, such as France and India, a tax is imposed upon the pursuit of a particular profession (e.g., medicine or law), payable to local authorities. The tax might consist of a percentage applied to payroll or turnover, or a fixed rate for each profession. In the latter case, the tax operates very much like a licensing fee. The French tax, known as *patente*, is replicated in a number of French-speaking African countries; big businesses are assessed on a fixed multiplier for the type of operation applied to the property-tax valuation. A tax on professions and trades can be an effective means of generating local revenue. It is relatively easy to identify the tax base and cheap to collect. It is also particularly well suited for informal-sector or quasi-formal activities such as small shops and trades. Problems which should be avoided include complicated assessment formulae as is the case in French-speaking African countries and the regressive nature of over-simplified flat rates.

Mass personal taxes

16. In some developing countries, local authorities have levied a general personal tax on incomes which fall below the point at which liability for national income tax begins. This has operated in countries where only a relatively small minority pay national income-tax, partly because most incomes do not reach the exemption level and partly because the national income-tax administration is not geared to cover a mass of peasant farmers, small traders etc. The local personal taxes have normally attempted to cover the entire adult population and have been characterized by:
- (a) A basic minimum rate of tax for which every able-bodied adult is liable, regardless of income;
 - (b) A fairly low maximum tax rate acting as a cut-off point below the incidence of national income tax;
 - (c) A series of “stepped” rates between the minimum and maximum, applying to ranges of income;
 - (d) The use of crude “imputed” or “presumptive” income criteria, to estimate earnings from common sources of livelihood, such as cultivation, livestock ownership and trading.

These mass personal taxes have operated mainly in tropical Africa, where traditions of communal land ownership have made land taxation an unsuitable base for taxation. Although mass personal taxes are regressive by nature, and thus unfair, they provide a major advantage over all other prevailing forms of taxation in developing Countries, i.e. everybody pays.

Box 2

In 1989 a new local service charge was introduced in Kenya as a source of local-government revenue. It consists of three elements:

- (a) A graduated levy on wages and salaries of employees up to a fixed maximum and collected at source by employers;
- (b) A levy on the value of marketed agricultural produce, collected through marketing agencies;
- (c) A levy on all licensed businesses and occupations.

Together, these elements constitute a comprehensive levy on incomes from most forms of economic activity. The different methods of assessment and collection represent a pragmatic response to the difficulties of income taxation in an economy with substantial numbers of self-employed persons and small businesses.

D. Taxes on expenditure

17. This category comprises a broad sweep of local sales taxes, royalties, entertainment taxes, vehicle taxes etc. which are often described as “indirect taxes”, because they can usually (but not invariably) be passed on by the payer to someone else, normally the end-user.

Sales of goods

18. General taxes on sales of goods are normally levied by central governments or by the state governments in a federation. There are a few exceptions. About 3000 local authorities in the United States of America impose a surcharge on state sales tax. In the Netherlands and the Philippines, municipalities receive a share of national sales tax, and Brazilian municipalities receive 25 per cent of value-added tax. A local surcharge on petroleum sales taxes operates in some cities in Japan and in both North and South America.

Sale of services

19. There is a variety of local taxes on sales of individual services. Most common are taxes on:
- (a) Entertainment, including cinemas, theatres and sports;
 - (b) Hotels and restaurants (e.g., in Indonesia);
 - (c) Public utility bills, e.g., electricity, gas and telephone.

Movement of goods

20. The majority of municipalities in India, Nepal and Pakistan (and, formerly, in Bangladesh) impose a tax, known as octroi, upon the value of goods entering a town for use, consumption or sale. It is collected by the equivalent of customs posts on the borders of cities and towns. The practical inconveniences involved have occasioned many

recommendations for the abolition of octroi, but it has proved impossible to find an alternative source, which matches the scale and buoyancy of its yields. One Indian state, Madhya Pradesh, has abolished it, but West Bengal has recently adopted it. Octroi is customarily levied according to the weight of goods or per unit. Several cities, such as Ahmedabad and Bombay, now impose it on the value of goods as invoiced (reserving discretion to assess value independently if the invoice is suspect); this is generally found to yield significantly higher revenues than other means. A variable tariff may be imposed, with a low rate (or total exemption) for essential foodstuffs and high rates for consumer durables. Rates of tax are generally very low, usually under 3 per cent of value. A form of octroi also exists in the United States of America for tobacco and liquor goods.

Taxation of vehicles

21. Almost all countries impose a substantial annual vehicle-licensing tax, which considerably exceeds any registration costs. National governments often claim these revenues, because of their size as they argue that vehicles do not stay in one region. Local authorities often have an equally valid claim upon them, insofar as they have to meet the costs attributable to motoring - road construction and maintenance, and parking provision, in particular. A number of countries recognize this and assign vehicle taxes to municipal authorities; Colombia, Egypt, the Republic of Korea, Spain and Zimbabwe are examples. In the United Republic of Tanzania half the taxes accrue to the urban authorities. In some countries, such as India, Indonesia and Pakistan, taxes on motor vehicles are reserved to state or provincial authorities but local authorities tax non-motor vehicles, such as bicycles, bullock carts and rickshaws - a dubious, ill-rewarding privilege. A few city governments also receive a substantial tax on the initial registration of vehicles or on subsequent changes of ownership. This is usually a flat fee, but, in Indonesia, it is a percentage of the sale value.
22. The assessment of annual motor vehicle taxes varies considerably. In some countries, a flat rate applies to each class of vehicle - private passenger, public passenger, light commercial etc. Other countries have graduated tariffs, depending on such variables as weight, engine capacity, distance between axles or age.
23. Parking fees are normally regarded as charges rather than taxes.

E. Evaluation

24. To judge the potential and performance of taxes, criteria are needed: these are set out under six headings. Five - adequacy and elasticity, equity, administrative feasibility, political acceptability and economic efficiency - apply to all revenue sources - tax or non-tax, central or local. The sixth concerns the suitability of a tax for levy and administration by local rather than national government.

Box 3

Harare City Council in Zimbabwe reassesses property tax values every five years. In the interval between revaluations it raises the rate of tax each year in the light of inflation; the Council has unrestricted rights to set tax rates under the law. When a revaluation is completed the tax rate is reduced; in this way tax liabilities are maintained at a relatively constant real level in cash terms. The Council also levies a 5-per cent tax on electricity consumption and collects the licensing fees for motor vehicles. These three sources provide considerable buoyancy in municipal revenue.

Adequacy and elasticity

25. The first and most obvious requirement for revenue sources is that they should be adequate to meet the costs of the services which they are intended to finance. Small, multiple levies, which neither can, nor do yield substantial revenues, are expensive in money, time and public patience. It is usually desirable to concentrate effort on taxes which can raise a substantial portion of the cost of the services to which they are devoted.
26. The costs of services are not static, however. They increase because inflation raises prices, because population is growing, particularly in urban areas, because rising standards of living inspire demands for higher standards of services (e.g., by generating additional traffic or use of water), and because national development plans expect services to be improved and expanded. It is, therefore, highly desirable that revenue sources should show "elasticity", i.e., that their capacity to yield additional revenue should respond to the same pressures as the increasing demands upon public expenditure, and that the tax base should grow automatically when prices rise, the population increases, the economy expands etc.
27. Some revenue sources are far more responsive in these terms than others. Property tax revenues are frequently substantial, stable and predictable - the most substantial tax sources for municipal government, taking a worldwide view. However, the elasticity of property taxes is poor in relation to growth in prices, population and incomes.

Real increases in rents or market values are only reflected in the growth of the tax base when revaluations are carried out - often an infrequent process, inefficiently executed. In between revaluations, revenues can only be kept in line with prices by tariff increases which can be politically difficult. Automatic indexation of taxable values improves buoyancy, but this practice is largely confined to some cities in the United States and does not obviate the need for regular revaluation to maintain equity. Population increase does give rise to increases in the tax base, but this is rarely commensurate with the rate of population growth, since many new households are absorbed by overcrowding in existing buildings or illegal construction.

28. National income taxation is buoyant, certainly as far as inflation and economic growth are concerned, and this benefits local authorities which exploit it through surcharging or tax-sharing. Whether it is responsive to population growth depends upon the structure of employment and the extent to which income taxation extends to the informal economy. The other types of local taxation of income, such as occupation taxes, are inelastic, since they normally depend upon discretionary increases in tariffs to keep pace with inflation. They do, however, capture growth in population and business.
29. Taxes on expenditure are perhaps the most buoyant of all, particularly if tariffs are expressed in percentages of prices and not on a unit price basis. The volume of business taxed (or of traffic, in the case of vehicle taxation) should automatically reflect growth in population or personal incomes. Local tax sources, such as octroi in India and Pakistan and motor vehicle tax in Indonesian provinces, have proved extremely elastic. Between 1975 and 1985, octroi revenues in Bombay increased eightfold, while property tax rose by only 50 per cent. The only drawback is that yields will respond to recession as well as growth.

Equity

30. A second requirement is that of equity – that the burden of maintaining public expenditure should be borne by sections of the community in proportion to their wealth. By these standards, taxation is good if it is progressive, i.e., if the percentage of a person's income paid in tax increases with the level of that income, tolerable if it is proportionate (i.e., if the percentage of income paid in tax is constant at all levels) and bad if it is regressive (i.e., if the percentage of income paid in tax declines with rising income levels). In terms of local taxation, the question of equity has to be seen in three dimensions. First, the incidence of tax should be equitable as between people of different income levels (“vertical” equity). Secondly, it should be equitable between different sources of income; a salaried person should not pay more than one with an identical income derived from business or self-employment. Thirdly, the incidence of taxation should be fair as between different geographical areas: people should not be taxed more heavily in one area than another.
31. Equity has to be seen, however, in relation to both revenue and expenditure. It might not necessarily be unfair to tax people highly, if they live in an area which has an exceptional level of services. The worst inequities occur when people are taxed heavily in relation to their income and, yet, experience a low or substandard level of services.
32. A progressive tax structure is desirable on grounds of social justice. It does mean, however, that people in the lowest income groups should be subject to very light taxation. This is easy to achieve in well-developed economies, where the bulk of the population is in the middle-income brackets, but difficult in poor societies where most of the population is in the low-income range. In the latter case, the tax base provided by the middle-income and high-income groups might be too small to bear the bulk of public expenditure (the constraints usually being both economic and political).
33. The equitable incidence of a tax is affected by its coverage, by its rate structure and by its methods of assessment. Injustice arising from imperfections in assessment methods will obviously hurt most, if tax rates are high rather than low. As tax rates increase, so does the volume of complaint over any crudity in assessment methods. This means that deficiencies in the system of assessment are a serious constraint to the equitable incidence of a revenue source.
34. Property taxes are crudely equitable, in that there is usually a rough correlation between the income of individuals and businesses and the value of the premises they occupy. There are, however, a number of factors, which impair equity, viz.,
 - (a) Market forces might result in considerable differences in rental or capital values, which depend upon location rather than the quality of the premises or the incomes of the occupants;

- (b) The rental or purchase costs of housing or business premises upon which the tax is based might represent a higher percentage burden on the income of the poor than on that of the rich;
 - (c) Assessment methods might include an inequitable bias;
 - (d) Differences in the size and value of the premises occupied by business firms might reflect the of business more than its profitability (selling cement needs a bigger shop than selling jewellery).
35. Income taxation is potentially the fairest form and can most readily be made progressive. The problem, however, is to achieve horizontal equity, i.e., to achieve equal taxation of people with incomes that are equal but derived from different sources. Assessing salary earners is easy, assessing the self-employed difficult. Two devices are common - self-assessment or the use of presumptive income criteria.
36. The equity of taxes on expenditure is difficult to determine, because of uncertainty as to who really bears the tax. In so far as such taxes are passed on to the consumer, it can be argued that equity is preserved, since expenditure is a reflection of ability to pay. Evidence suggests, however, that expenditure taxes are highly regressive, where they extend to mass-consumption goods, such as food and clothing, since purchase of taxed goods takes a higher proportion of the income of the poor than that of the rich. This rarely, however, constitutes a criticism of local expenditure taxes, such as octroi, since their incidence on final price is normally insignificant compared with that of national levies.
37. Taxation of private vehicles can be highly progressive, particularly if graduated by size, cost, engine power or other appropriate measure.

Box 4

In 1986/87, the Delhi Municipal Corporation increased its revenue from property tax by 96 per cent over the previous year without any general change in rates or assessments. Several measures pertaining to collection contributed to this result, including:

- (a) Freezing the bank accounts of defaulters,
- (b) Persuading the Income Tax Department not to grant deductions in income tax assessments for property tax payments by businesses unless the tax and arrears had been paid;
- (c) Incentive-scheme for tax collection staff based on fulfillment of targets;
- (d) Permitting payment through banks and zonal cash offices, and issuing pass books to taxpayers so that they had evidence of payments made;
- (e) Computerizing tax records.

Administrative capacity

38. The third consideration in the assessment of revenue sources is administrative capacity. Revenue sources vary in the amount of skill, integrity and determination required in their administration. They also vary in the amount of time and money involved in collecting them, compared with the yield. In many developing countries, the bulk of the population is self-employed or working for small “informal-sector” businesses without clearly assessable income. The administrative costs of assessing and collecting any direct property or income tax from such a population are very high, although the average amount that can be collected per capita might be low. Yet a very substantial revenue might be collected through a duty on petroleum, for example, at negligible administrative cost. In such economics, there is a heavy bias of administrative convenience towards dependence upon indirect revenues which can be levied on formal-sector commercial transactions through large manufacturers, importers, distributors etc. This is not necessarily consistent, however, with considerations of equitable incidence.
39. The administrative merit of property taxation is that liability is or should be obvious: i.e., one cannot conceal a plot or a building. Even so, considerable effort is necessary to keep cadastral surveys and taxrolls up to date. Cadastral surveys are expensive in themselves.

40. The biggest administrative problem with property taxation is assessment. This requires technical skill which is often in short supply, though pooling valuers at national level or use of consultants might help. The second problem is that the process often involves a high degree of personal judgement and of contact between assessors and taxpayers which offers wide temptation to collusion in undervaluation. Simple systems, which limit site visits to physical measurement and apply standard formulae, perhaps by computer, may be effective.
41. Collection of property taxes can also prove difficult, if liability attaches to elusive owners rather than occupants, if records are not kept up to date and if sanctions are not punitive or strictly enforced.
42. Income taxation is relatively simple to administer, as far as wage and salary earners are concerned, if employers are required to deduct at source. Assessment of and collection from the self-employed are difficult, and collection costs can be high. Use of presumptive incomes helps assessment, but the resulting inequity is only tolerable where the incidence of the tax is low. If the tax is a mass tax, i.e., not confined to the wealthy, a highly localized administrative network is needed to identify taxpayers and enforce payment. Even so, the mobility of labour in large cities can lead to substantial evasion. One check on this is a requirement of tax clearance for access to public services.

Box 5

One-stop payment and collection procedures

A major problem in many developing countries is the lack of enforcement capabilities for faulty tax and rate payers. In many instances, the lack of a land-tax cadastre, poorly maintained property registries, absence or shortage of postal boxes and addresses makes it difficult for both tax collectors to collect taxes and tax payers to pay.

Several types of solutions have been implemented in different contexts. A few examples include:

- (a) One-stop payment for all local taxes and service rates at any bank, post office, social security office, electricity or water-company office and local government offices. This greatly facilitates payment procedures.
- (b) Combining the above-mentioned payment procedures with punitive measures, for example freezing the postal and/or bank accounts of defaulters on property taxes and cutting off electricity supply. Disconnection of water supply is not often used for health and sanitation reasons.
- (c) Other punitive and preventive measures which have been used include providing proof of having paid all outstanding taxes and rates before authorising purchase/sale of property, issuing of identity cards and exit permits to travel abroad and approval of bank loans.

43. Taxes on expenditure raise very large revenues with very little cost or difficulty, when they are collected through large marketing or manufacturing organizations, or imposed (as with vehicle taxation) through forms of licensing which the public has a strong incentive to obtain. These levies are costly and difficult to apply to commercial transactions conducted through small businesses, markets and the “informal sector”. A tax on the movement of goods, such as octroi, is relatively simple to enforce, insofar as the taxed goods “come to the collector”, though this does impose inconvenience on transporters (often much exaggerated by the transport lobby) and carries dangers of corruption.

Political acceptability

44. No tax is popular, but some taxes are more unpopular than others. Political will is needed to impose taxes, to decide questions of liability and assessment, to collect taxes physically and to enforce sanctions against defaulters. Sometimes, political sensitivity focuses on particular questions of social values (e.g., should the authorities tax land or charge for water?) or of sectional interests (of landowners, civil servants, traders etc.). Generally, taxes are least sensitive politically if they are indirect (concealed) and do not involve too many overt political decisions, such as a parliamentary/council decision to raise the rate of tax.
45. Property taxes are highly sensitive politically. There are two reasons. First, they have to be collected directly from the payers and are, therefore, seen as even more of a burden than income taxes which can be deducted by employers. Secondly, any increase in tax, whether by tariff revision or revaluation, is normally dependent upon a deliberate political decision by ministers, members of Parliament, mayors or councillors.

46. Income taxation is sensitive, in so far as it is a direct tax, but collection at source mitigates this to some extent, and increases in payment take place automatically as incomes rise. Taxation of the self-employed, however, is very sensitive, since much argument might arise in the assessment process, and effective collection may depend upon a degree of pressure which can be perceived as harassment.
47. Taxes on expenditure are usually the least sensitive politically, since they are normally indirect and subject to a measure of concealment. They might, however, encounter opposition where they are seen to contribute to price rises which foster discontent or where an attempt is made to impose high rates on luxury items which affect political and business elites.

Economic efficiency

48. Taxation has a dual purpose - to provide money for public purposes and to influence economic behaviour. Taxes affect the cost of individual decisions: e.g., a property tax affects the profitability of buying and renting a house, a sales tax affects the cost of buying a shirt, an entertainment tax affects the cost of going to the cinema. Taxes must be judged in terms of their effect upon the decisions of a taxpayer to work, consume, save and invest.
49. Economic efficiency criteria are generally more important in appraising national taxes than local taxes. There are two reasons. First, it is usual for central governments to retain responsibility for overall economic management and to use taxes to modify economic behaviour. Secondly, the scale of local taxes is usually insufficient to make a significant difference to people's choices. A national customs duty of 50 or 100 per cent will clearly affect the decision to buy a foreign car. Its local or regional version, called octroi in India, at 2.5 per cent is not going to make the same goods significantly more expensive to buy. It must be, nevertheless, of concern whether local taxes will have a significant effect - harmful or helpful - on local economic behaviour.
50. Property taxation is often debated in terms of its incentive effects on land use and construction. As already mentioned, unimproved site value taxation is frequently recommended - and occasionally adopted - to encourage high-value development and, conversely, penalize underdevelopment. It is likely that the supposed incentive and disincentive effects of property taxation in most cities are considerably exaggerated, simply because of the low ratio of the tax to the other costs and incomes which influence an owner's choice on development.

Tax administration by local authorities

51. In addition to the general considerations of types and methods of taxation discussed above, tax administration by local authorities raises specific questions of feasibility. Some, relating to the availability of administrative skills, have already been raised. Others must be mentioned here.
52. The first issue is whether it is clear to which authority a particular tax liability is due. This is rarely a problem with property taxes, since a plot or building is clearly located within a particular jurisdiction. Some argument arises over local income taxation, where an individual resides in a different jurisdiction from that in which he or she works; it is usually held that the area in which a person lives should get the tax, but some towns claim the right to tax commuters. The most difficult question arises over taxes on corporate incomes, where profits might be derived from operations in several locations. Countries with local taxes on corporate profits have developed formulae for assigning tax revenues to different municipalities, but the process is complex.
53. A second and related issue concerns the location of tax collection. Tax may be paid in one area but the payer may effectively pass the cost to someone in another locality. For example, a sales tax may be paid by an importer at the port of entry or a manufacturer where the factory is situated; but the tax may be added to the price of the article and "shifted" to a consumer elsewhere in the country. If the sales tax were a local government tax (or shared with a local government according to its origin) the income would not necessarily go to the local authority where the eventual payer resided. It is desirable that local taxes should accrue to the local government where the taxpayer lives, but this is not easy to insure; even the property tax on a shop or factory may be "shifted" through prices charged to consumers from other localities.
54. A third issue concerns the problems associated with different tax rates or assessment rules. Ideally, a local authority should have discretion to set its own tax rates and to make its own decisions on the levels of taxation it raises and of services it offers. In the case of property taxation, no practical difficulty arises, if one town levies a higher rate than another; this practice might have effects on the local economy and on choices of location, but, at least, the local authority can decide whether to bear the consequences. The biggest problems arise with different rates on expenditure tax in different areas for the same goods. Such variations can lead to significant prices

between jurisdictions and, therefore to movements in trade differences. However, one can argue that a local authority should be free to make a decision in the light of all its consequences, beneficial or adverse.

F. General experience

55. Financing by local taxes maintains the principles of local cost recovery, although the amount of individual tax liability is not always closely related to the benefits received. It enhances accountability, in so far as local representative bodies have discretion to fix tax levels and assessment criteria themselves, and to reconcile these with expenditure priorities.
56. The most widespread base for local taxation is property - the value either of land alone or of land and buildings. The clear connection between such property and the supply of physical services, such as roads and drains, gives it an obvious "local" character; and it is the least vulnerable to poaching by other levels of government. This latter immunity is chiefly due to two characteristics. The first is its high political visibility, since it is normally collected in cash from the ultimate bearer of the tax burden: the second is its inelasticity in relation to inflation, population growth or rising incomes. These weaknesses have led to a widespread decline in the percentage contribution made by property taxation to the support of urban services. In much of western Europe the tax is fast disappearing as a significant source of urban revenue.
57. Local taxes on corporate and personal income - usually by surcharge - are sources of revenue for local authorities in North America, Japan, the Republic of Korea, and parts of western Europe. In economies where the bulk of commerce is in the hands of large corporations and most people are in fixed-wage employment, income taxation offers urban government a substantial and buoyant revenue base, provided that the rates of national/state income tax are not too high to preclude a significant local income tax or surcharge. These conditions are rarely obtained in developing countries, and few of their cities directly benefit from this tax base. Kenya, Uganda and Zambia have graduated personal taxes which attempt to tax a large amount of income left unexploited by national income taxes owing to inadequate administrative coverage and high levels of exemption. These local taxes apply a series of stepped rates between a statutory minimum and maximum. The Ugandan tax uses "presumptive income" criteria to estimate personal incomes from all sources of livelihood; the Kenyan tax combines a tax on salaries, wages and business occupations with a cess on agricultural produce. Mass personal taxes are a means of exacting a contribution from all citizens, but, in urban conditions, that can be a laborious and demanding process.
58. There are several cities which draw revenues from taxes on goods, services and general business turnover. Octroi provided 67 per cent of Bombay's current revenue in 1985/86 and 71 per cent of Karachi's. These taxes can be lucrative and buoyant, but are extremely, heterogeneous and spasmodic, i.e., relatively few cities collect large revenues from taxes which vary considerably in their base and method of assessment. Quite widespread are taxes such as those on entertainment, but these finance relatively small proportions of city budgets.
59. With inflation and rapid growth, city governments might be able to cope with the costs of providing a relatively limited range of physical services - local roads, refuse collection etc. - with a revenue base of property tax and user charges only. Those which have shown the capacity to finance a wide range of services (such as education and slum improvement) and to respond energetically to growing demands have either: (a) a revenue base with at least one other substantial tax source (e.g., motor vehicles in Jakarta, motor vehicles and electricity consumption in Harare, octroi in Bombay or Karachi) which effectively exploits the buoyant features of the urban economy; and/or (b) significant and increasing transfers from national/State governments. These are not necessarily preferred options, simply descriptions of past performance. However, a substantial and wide local revenue base might be more secure in the long term than a rising level of dependence on government transfers and grants.

V. CHARGING: GENERAL PRINCIPLES AND PRACTICES

Trainers' notes

This is the first of two chapters on user charging. It is devoted to general principles. The first section describes variations in the range of urban services financed by user charging. The second section discusses three major issues in the estimation of charges - the identification of cost to be recovered, the choice between marginal and average costs, and the alternative methods of charging capital cost. The third section analyses justifications for, and methods of, subsidization. Finally charges are analysed in terms of the same criteria as taxation in chapter IV.

This chapter should be read by participants and then discussed in one or two teaching sessions. Trainers need to go through the content systematically using prepared illustrations to ensure that the principles and practices are thoroughly understood. A basically didactic approach is required.

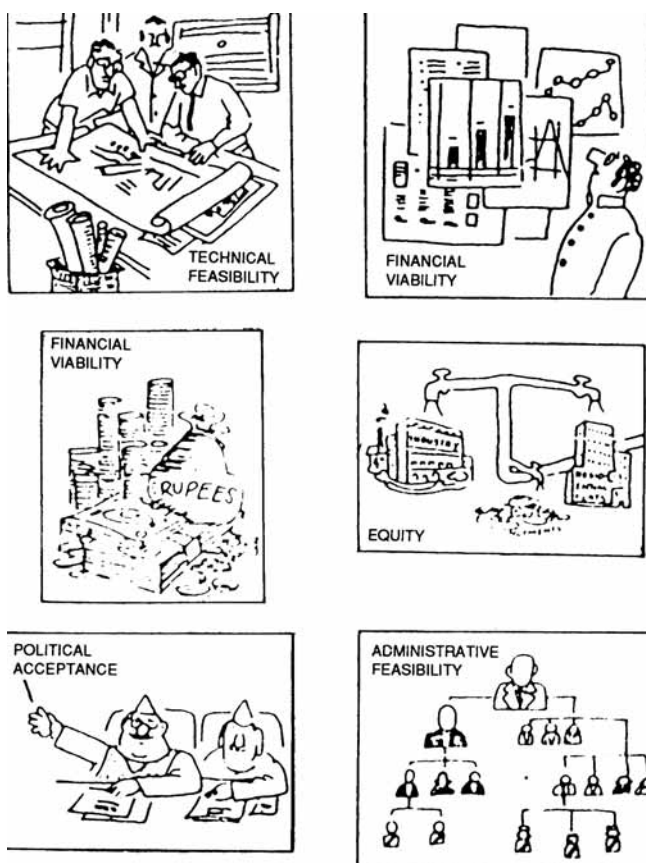
A major weakness in user charging is the lack of automatic response to cost inflation and the political sensitivity of any major increases in tariffs. It is well to stress the importance of small but regular, annual increases to avoid growing deficits and the need for large, unpopular price rises.

A. Introduction

1. Some public services are financed by general taxation, and others by direct charging to the consumer. In the one case, every taxpayer has to contribute, regardless of whether the service is immediately available to him/her and how far he/she uses it. In the other, payment depends upon the service being provided and the use made of it. The reasons for this distinction have been discussed in chapter III.
2. In practice, this distinction becomes blurred in two ways. First, charges might be imposed which greatly exceed the cost of the service rendered, the surplus being appropriated to a general revenue pool (as opposed to extending the service or subsidizing other users). This is typical of many charges for regulatory purposes - licensing fees, for example - and such "charges" effectively become taxes. Secondly, a service might only be partly financed by charges, the balance coming from specific or hidden subsidies from general tax revenue.
3. There is also a widely-used practice which marks a halfway stage between taxing and charging. This is the calculation of service charges as a percentage of property-tax values. Water, street lighting and drainage charges in many Indian cities have this basis. They approximate to a charge, insofar as they only fall upon taxpayers to whom the service is provided or available, but to a tax, in that their scale is not related directly to the quantity consumed by the payer.

B. The extent of charging

4. There are enormous variations in the extent of public user-charging - variations in charging for a service at all, variations in the extent of direct cost-recovery and variations in the dependence of particular public authorities upon revenue from charging.
5. Taking the first dimension, there are some services for which direct user-charging (with or without subsidy) is almost universal, viz.,
 - (a) Piped domestic and industrial water supplies are normally billed through metered consumption rates, through a rate based on property valuation or the diameter of the mains connection pipe, or through sale from public water points;
 - (b) Public transport costs are recovered, partly at least, from passenger or freight fares (though subject to increasing degrees of subsidization from general revenues in Western countries);
 - (c) Postal and telephone services are normally sold per unit of service;
 - (d) Gas and electricity are also basically charged according to volume consumed, though unit costs often decline as the amount used increases, i.e. charges are regressive;



- a) Technical Feasibility,
- b) Financial Viability and Yield,
- c) Political Acceptability,
- d) Equity,
- e) Efficiency in the delivery of services,
- f) Quality of service as viewed by users.

- (e) Public-housing tenants almost invariably pay rents (or tenant-purchase installments), except where subsidized housing is provided to public servants as part of their conditions of service;
- (f) Some form of entrance fee is normally charged for use of certain recreational facilities, such as municipal swimming pools, golf courses or theatres, though not for others, such as parks.

Provision of public-utility services such as water, gas, electricity and telephone, is also, usually, subject to initial connection fees and, sometimes, subject to a basic standing charge, regardless of consumption.

6. There is a wide range of practices regarding the charging for services. The following are prominent examples:
 - (a) *Education.* Most countries now provide tuition-free education at primary level, though the costs of “extras”, such as uniforms, meals and textbooks, might still be a significant burden for poor families. A minority still charge for primary tuition - mainly where the provision of school places falls far short of the school-age population - though usually at highly subsidized rates. The position at secondary level is not dissimilar, but with more countries charging and at significantly higher rates than for primary level; these charges are frequently counterbalanced by provision of exemptions or scholarships for poor students. In tertiary education, charging can be regarded as the rule; what varies is the extent of subsidization and of scholarship provision. An alternative concept in higher education is the charging of costs to a loan account which the student discharges over his/her subsequent career. Parental contribution is frequently sought for the capital costs of primary school-building through “self-help” community effort.

- (b) *Roads (and related infrastructure).* Construction and maintenance of highways are typically financed from general taxation, but there is, internationally, a variety of specific user-charges for roads. Trunk roads, with limited access, are often operated as toll roads. Initial construction of estate or neighbourhood roads, together with drainage and street lighting, is frequently charged to landowners through initial service charges or to local taxpayers, as in the case of some Colombian cities, through the valorization tax system. These costs can, alternatively, be recovered from developers and residents by public acquisition, servicing and resale of land - a widespread practice by urban-development authorities or new-town corporations - or by the variant of land readjustment. Costs of city-centre roads can be recovered indirectly through parking fees or area licenses (most significantly in Singapore). Maintenance of local roads and paths in rural villages or urban neighbourhoods can depend upon obligatory communal labour or some monetary commutation.
- (c) *Medical services.* Generalizations are difficult, but two basic models can be discerned. In the first, public hospitals and clinics provide a free basic service, while charging for preferential accommodation or priority treatment for non-emergency cases in hospitals; a substantially free basic service can, nevertheless, be associated with a low flat-rate fee for treatment and/or drugs, subject to exemption for children, the old or the destitute. The other model is full-cost charging by hospitals and clinics - whether publicly or privately run - but with a national medical-insurance scheme or a range of private insurance schemes, to cover patients' costs; some form of protection is usually given to those with low incomes and inadequate insurance cover by graduation of charges according to income.
- (d) *Environmental health.* As a demonstrably public good, public-health services are customarily tax-borne, but there are exceptions. Sewerage or refuse collection is frequently charged to those served, occasionally by specific fees but usually, in the case of households, by a rate graduated according to property valuation. Removal of industrial refuse or effluent is usually charged specifically, according to volume and effluent strength. Where communal sanitation is provided, users might be expected to maintain it collectively.
- (e) *Fire services.* Urban authorities occasionally charge their citizens (or their insurers) for putting out fires.

C. Cost estimation

7. The basis of charging is cost-recovery, but this can be varied by governmental policy to charge less than the full cost or to recover more than the full cost, involving, respectively, a contribution from or to general revenue. Issues of subsidization or surplus-generation will be discussed in later sections. However, the first necessity under any charging policy is to define and calculate the full costs of the service under consideration. This raises three issues.
8. The first issue is what expenditures to attribute as costs to a particular service. Where does one draw the boundary between the costs of a particular service and those of general public services in the locality or the general administrative overheads of the local authority concerned? For example, in calculating the costs of a sites-and-services plot, one could notionally include all expenditures on:
 - (a) Off-site infrastructure such as roads, drainage, street lighting;
 - (b) Extensions to trunk infrastructure necessitated by the estate (e.g., main roads, water treatment plants and pumping stations, main services);
 - (c) Social and community services (e.g., schools, clinics, community halls);
 - (d) Project administration (e.g., managers, architects, engineers);
 - (e) A proportion of central administrative overheads (e.g., planning, personnel and finance departments, the chief executive office).

An intermediate approach is to attribute only the marginal costs of administration, i.e., those increases in overheads caused specifically by the expansion of a service. The community services on an estate might be regarded as part of the general services provided by the local government to public and private tenants and owner-occupiers alike: if this is so, there would be no justification for including them in the housing costs. However, a different case would arise if services provided to a municipal estate were of an exceptional standard and character:

here, resort can be made to the principle of charging the marginal costs, i.e., those increases in public expenditure which arise specifically from the provision of the service.

9. The cost "boundaries" issue arises very sharply in respect of car parking. The full cost of a car park might be regarded as confined to the provision and management of a parking site. It can be argued, however, that the costs of parking include providing access to the general area, thereby including the road and traffic management system in the vicinity.
10. The second issue is whether the costs are calculated according to the actual expense of a particular unit of service or on a pooled average basis. The actual costs of an identical level of service might vary considerably. Amortization of capital costs will vary with the age of the capital assets, because of inflation and because of fluctuations in the interest rates attached to any loans involved. Location affects costs: water and electricity will be costly to supply to outlying areas, because of transmission costs - the length of mains, pumping, leakage etc. Low-density populations consume less than high-density, but the fixed costs of provision will not fluctuate proportionately: a half-empty bus serving a sparsely populated area will cost almost as much to run as a crowded one in the city centre (depreciation and labour costs might be almost constant, and fuel consumption will not be proportionately lower).
11. There are conflicting arguments. If chargeable services are seen as purely private goods, and charging as a market-pricing instrument, each unit of service should be charged according to its own marginal cost. A consumer is only provided with a service if he/she is prepared to pay the true cost of providing it to him/her. This encourages rational use of a service and an optimum location of settlement. If wealthy commuters choose to live on elevated 4-acre plots 20 miles from the city, they should bear the heavy costs of pumping water to them; the charges might encourage them to live somewhere more sensible in the eyes of town planners.
12. The opposite argument is that the conditions which vary the cost of service are not necessarily of the consumer's making; insofar as the service might meet a basic human need, the consumer should not be penalized, if costs are above average in his/her case. If the poor live on the outskirts of a town, for example, it might be because that is the only place they can afford land and shelter. Distance from work will increase their essential expenditure in any case, and their burden should not be increased by charging above-average unit costs for essential services.
13. This issue arises sharply in many cases and is difficult to resolve. It faces public-housing authorities when fixing rents of estates which vary greatly in their historical construction costs and interest charges pertaining to particular generations of houses. Two questions, however, affect the balance to be struck between the arguments for marginal cost and for equalized charging. The first is the extent to which the service (or some minimal provision of it) is meeting an essential human need: the second is the degree to which individual consumers choose the conditions - particularly the location - which affect the cost of the service they use. Both questions really involve the degree of consumer choice; the extent to which use of a service at above-average cost is self-imposed, like buying an expensive piece of clothing.
14. The third issue in cost estimation is whether capital costs are included and on what basis. There are many examples of services which are meant to be self-financing, but only the operating and maintenance costs are charged to the consumer. The capital costs have been met out of general public revenues or from loans which have been fully discharged. Many long-standing water-supply and sanitation systems fall into this category; so does the New York City subway.
15. Clearly, where debt charges are still current, these would be included in the chargeable costs of a service, unless it is being deliberately subsidized. Even so, these debt charges might fall below a market level if the loans are "soft", i.e., they have not been advanced on full commercial terms. There are arguments, however, for including capital costs in the estimation of charges, whether the authority administering the service is currently discharging them or not. Capital investment is regarded as having an opportunity cost; i.e., it could have been used on some other form of public expenditure or left in the taxpayer's pocket. Seen in this light, investing capital in a particular service can only be justified if it earns a rate of return comparable with alternative forms of public or private use. The public's willingness to buy a service at the resulting level of charging is comparable to its readiness to buy goods or services from a commercial operator using the same amount of capital; it is the essential market test of viability. It is even argued that this test of comparison can only be fully met if charges include the equivalent of the taxation which a private operator would have faced.

16. Similarly, it can be argued that it is improvident that users should not contribute to the capital costs of assets, just because the costs have already been fully met by another generation or public body. All physical assets will wear out in time and will require replacement at current costs. Not to pay towards capital costs is to live off the sacrifice of previous and future generations. Charging should, therefore, include the amortization of capital assets at their current rather than historical value, i.e., the cost of acquiring or constructing them now.
17. Marginal-cost pricing is a variation of this approach, aiming to charge all consumption at the unit cost of meeting any additional demand; if extra demand would necessitate new capital expenditure, its unit costs would be reflected in the price of the whole existing supply. For example, if a water supply is capable of supplying twice the present level of demand, the marginal cost of extra consumption would be zero, but, if its full capacity is already exhausted by current demand, the marginal cost of water is investment in a new supply (extra reservoirs, pumping stations, mains pipes, treatment plants etc.). Such pricing is advocated on the grounds that every consumer must be faced with the full cost implications of increasing demand. It is mainly used in relation to utilities such as water and electricity, where increases in consumption can flow from the decisions of existing as well as potential consumers.
18. Including provision for future capital requirements, through depreciation charges, current-cost accounting, marginal-cost pricing or similar approaches, is obviously prudent in theory, but it does have its dangers. Adoption of such principles can give rise to considerable increases in charges which conflict with counter inflation policies. It can also generate substantial cash surpluses which discourage service managers from proper concern with efficiency and economy in expenditure.

Surplus funds held against future capital commitments can be too readily diverted to cover deficits in the financing of other services.

19. There are, therefore, a variety of practices in cost estimation. Chargeable costs may include:
 - (a) Operation and maintenance only;
 - (b) Amortization of capital costs on “soft” terms (i.e., interest-free or at submarket interest rates; perhaps with moratoria on repayment or prolonged repayment schedules);
 - (c) Amortization of capital costs at full market rates of interest;
 - (d) Depreciation of the value of capital assets over their estimated life;
 - (e) A commercial rate of return on the value of the investment in capital assets;
 - (f) The marginal cost of investment (i.e., the unit capital costs of providing more than the present supply);
 - (g) A notional element of tax liability.

Furthermore, in calculating the value of capital assets for assessing depreciation or rates of return, valuation may be based on:

- (a) Historical costs;
- (b) Current market or replacement costs.

A two-part tariff can be adopted, with a fixed charge for the capital-installation costs and a variable charge based on consumption.

Charging below cost

20. The grounds for imposing charges would normally suggest that they should be based upon the total costs of the services under provision (though subject to all the question marks over cost estimation just discussed). The extent of this self-financing varies, however. As we have seen, the theoretical justification for charging involves some compromises, and these might result in charges being fixed below full cost level and subsidized from general revenue. There are three cases when this might happen.
21. The first case arises when a service is basically a public good – provided because of its collective benefit - but a charge has to be imposed to discipline consumption. The charge would then have to be set at a level calculated to

deter waste but to permit the minimum essential level of consumption by all income groups. Medical-prescription charges or water-standpipe rates might fall into this category.

22. The second case occurs where a service is partly a private and partly a public good - where it primarily benefits the individual user, but its consumption needs to be encouraged for some public saving or benefit. The most conspicuous example is where rail or bus fares are subsidized to encourage people to use public rather than private transport, as a means of reducing traffic congestion and road maintenance.
23. The third case is where a private good might be subsidized, because it is regarded as a basic human need and low-income groups, at least, could not be expected to meet its full cost. It is difficult to give examples, simply because the conception of "basic needs" is highly subjective and relative to the general standard of living.
24. To the purist, subsidization is an aberration. Clearly, it can lead to inefficiencies - either because resources are squandered on provision which is not cost-effective or because the subsidy benefits all consumers whether they need it or not. Two solutions are advanced. First, reduced charging should only apply to certain categories of users - low-income groups, children, old people etc. - or, secondly, subsidization should apply only to a minimum level of consumption, above which market pricing should apply. The first 40 litres of water supplied to a person per day might be charged, for example, at a low rate below cost, but consumption above this level would be priced at the full marginal cost. This is known as the "lifeline" approach, and water tariffs in Tokyo, for example, are based on this principle.

Charging above cost

25. In some cases, charges can be based upon recovering more than the full cost of a service, i.e., upon making a profit. There are three cases, at least, where this might arise.
26. The first is where charges are imposed for a basically regulatory purpose, involving little direct cost. There is a wide variety of charges from which municipalities, in various countries, derive revenue - often substantial - of this type. Examples include:
 - (a) Plot-registration fees;
 - (b) Land transfer fees;
 - (c) Building licences;
 - (d) Trading licences;
 - (e) Parking charges;
 - (f) Liquor licences.
27. The second is where charges might be imposed at an above-cost level, to reinforce their disciplinary effect upon consumption. Telephone charges can be graduated according to the time of day, to discourage congestion at peak business hours. Parking fees or area-licensing fees can be imposed at punitive levels, as in Singapore, to keep private cars out of city centres.
28. The third is where a service might be in heavy demand and people willing to pay highly for it, because of its importance or popularity and short supply. This is the case where the same service is also provided by private-enterprise. Charging above cost could be justified, in such circumstances, if the surplus revenue is ploughed back into extending the service, so that many have access to it.
29. Charging above cost, however, more than users gain is analogous to taxation. Its incidence and equity have to be considered. Which sections of the community are paying over the costs for a service, and which sections are benefiting from the surplus revenues? Charging high parking fees might be equitable, insofar as car-owners are generally from high-income groups, but making profits out of bus users, through fares, bus station fees etc., might largely penalize the poor.

D. Appraisal

Adequacy and elasticity

30. The extent and practice of charging are subject to such variations that generalizations about the scale of its contribution to local-government revenues would be meaningless. Some comment is possible, however, on elasticity. Charging should be responsive to growth in population and incomes, since these are generally reflected (often more than proportionately) in the growing demand for and consumption of a service.

31. Charges tend to be unresponsive to inflation, however. They are almost invariably based upon fixed tariffs per unit of service, and a discretionary decision is usually needed to increase them when costs rise. Increasing house rents, water tariffs, and bus fares is unpopular, and these charges frequently fall far behind the rate of inflation.

Equity

32. Charging is traditionally regressive. There are three reasons. First, it falls upon consumption which might be dictated more by essential needs than income levels. Secondly, subsidization often benefits middle-income and high-income groups more than the poor, as already discussed, with public housing and tertiary education as prime examples in many developing countries. Thirdly, because the capital costs of installation have to be recovered, regardless of the level of consumption, and do not vary greatly according to that level, many tariffs are based upon a declining unit cost, i.e., the more water or electricity used, the cheaper it gets. This favours large industrialists, at the expense of small enterprises, and householders with two bathrooms, a lawn to sprinkle and a car to wash, at the expense of poor families with one tap. One other regressive practice has been that of initial connection charges for water and electricity; regressive in the sense that the requirement of a lump-sum payment for initial installation has frequently prevented poor households from getting a service at all.
33. Charging is not usually seen as an instrument of redistribution *per se*. It is an inefficient tool for this purpose, precisely because consumption is not related only to income but also to family size, for example. Nevertheless, there is a growing concern to curb its regressive tendencies and, even, to use it as a positively redistributive mechanism. There are two reasons. The first is the effect which regressive incidence may have upon the access of the poor to chargeable services regarded as basic needs. The second is the failure of the taxation system in many countries to shift resources from the rich to the poor; if charges are easier to exact than taxes as a general means of financing public expenditure, this may extend their utility in redistribution.
34. There are various methods by which charging can be made non-regressive or positively redistributive. The first is the widespread basing of charges upon property values; water and sanitation are often priced on this basis. However, such an approach remains ineffective in most developing countries owing to lack of up-to-date valuation. The second is the use of differential tariffs, with high rates for certain classes of user - usually commercial and industrial; this is, of course, a questionable instrument, if the incidence falls on the consumer rather than the shareholder. The third is a progressive tariff which imposes increasing unit prices as consumption rises. The fourth is means-testing, with reduced tariffs or exemptions for the old and the poor (rarely an easy process to administer). Water-supply schemes financed by the World Bank have been widely characterized by cross-subsidization, progressive tariffs on large domestic or commercial consumers and reduction or elimination of the charges for supply to public standpipes and to households consuming small volumes only. However, this practice is being questioned, at least with respect to the charges to large domestic consumers, on the grounds that high water consumption might reflect household size more than wealth and that large families or shared dwellings are characteristic of the poor.
35. Cross-subsidized housing schemes are an object of increasing experiment, with rents or tenant-purchase charges on large houses or commercial premises subsidizing the provision of serviced sites or small units. Remedies for the burden of initial infrastructure connection charges include spacing payments over a number of years and recovering them by installments combined with the regular consumption charges.

Administrative capacity

36. Charges are theoretically easy to assess and collect. They are easy to assess, because liability is based on measurable levels of consumption; easy to collect, because people only get what they pay for. If rents are unpaid, the tenant is in principle, evicted; water, electricity, or telephones are cut off if bills are unpaid; people can only enter the swimming pool or the theatre through the turnstile.
37. In practice, there are three sets of difficulties. The first is technical – the problems of controlling illegal water connections and meter-bypassing, for example, or of collecting fares from a crowded bus with passengers inside and outside. The second concerns the political will to implement sanctions: evictions rarely win votes and are pilloried by the media; politicians may intervene to stop disconnection of water or electricity supplies to their supporters. The third problem is integrity: tax liabilities are fixed, but those for charges vary with consumption; it is hard to check what collectors should have received.

38. Imposition of sanctions is essential to efficient administration of charges, and some other devices are common. The first is to estimate what income should be received and then impose target revenues upon collectors: even municipal bus crews in Jakarta are expected to turn in a target collection of fares per route per day. A second is to subcontract charging to commercial collectors who tender lump-sum revenues competitively; this is analogous to tax-farming. Either method stabilizes revenues but can exploit the consumer. Subcontractors become monopoly suppliers and can often make extortionate profits, standpipe water-selling being a notorious case in some countries. A third practice is to require small neighbourhood groups to collect charges and pay these jointly to the service authority. This has been adopted for plot and water charges in the upgraded squatter areas in Lusaka; prompt payment is rewarded by a discount in the form of some communal improvement.

Political acceptability

39. Most charging is accepted in principle. Insofar as they are directly related to a specific tangible service and insofar as consumption includes an element of choice, charges are understood and met with reasonable willingness. Nevertheless, the level of charging is most sensitive politically. Most charges have to be paid out of pocket, and many relate to what people regard as daily necessities - education, transport, water, housing and the like. Increases require specific political decisions and are unpopular so that representative bodies are often even less willing to raise bus fares, house rents or water rates than taxes. Moreover, the need to raise charges arises particularly in times of inflation, when governments are under pressure not to increase prices.
40. As a result of failure to increase charges, by reason of political inertia, services either deteriorate or require increasing subsidy. Bus services, for example, have become increasingly unreliable because of the inability to replace worn-out vehicles. However, increased charges to meet rising costs might result in decreased consumption. Since capital costs and overheads remain constant, this gives rise to increasing unit costs: a vicious circle of declining use and rising charges is created.
41. The direct connection between consumption and charging is not always a political advantage. The public might make invidious comparisons between the service they receive and the amount they pay for it. Such discontent can be helpful, if it spurs managers to seek efficiency; it can be unhelpful where it is based on misconceptions of the true cost of provision.

Charging by local government

42. Discussion, so far, has not focused specifically on charging by local governments, since little distinction can be drawn between the practices and experience of central, parastatal and local authorities in this respect. Many if not most directly charged services are provided, in fact, by local authorities. There are no special problems attached to the administration of charging by local government. The performance of a service is normally located clearly in a given region, and assignment does not create difficulty; local variation in tariffs can cause political dissatisfaction but no insuperable administrative problem; the relative closeness of local representative bodies to their electorate might, however, sharpen their reluctance to increase tariffs or enforce compliance.

E. Conclusion

43. Acceptability, ease of collection and the need to discipline popular demand are all powerful arguments for charging service costs directly to the consumer. Although not inherently or traditionally an instrument of redistribution, charging can be molded to this purpose where there is political will and no suitable fiscal alternative. Much charging is highly sensitive, however; revenue might fall below the levels needed to operate a service effectively, particularly in times of inflation, because of political reluctance to increase tariffs or enforce sanctions. The specific connection between consumption and cost, and the direct nature of payment enhance accountability, where representative institutions are involved, but the consequent sensitivity can undermine the viability of a chargeable service.

VI. CHARGING: SPECIFIC APPLICATIONS

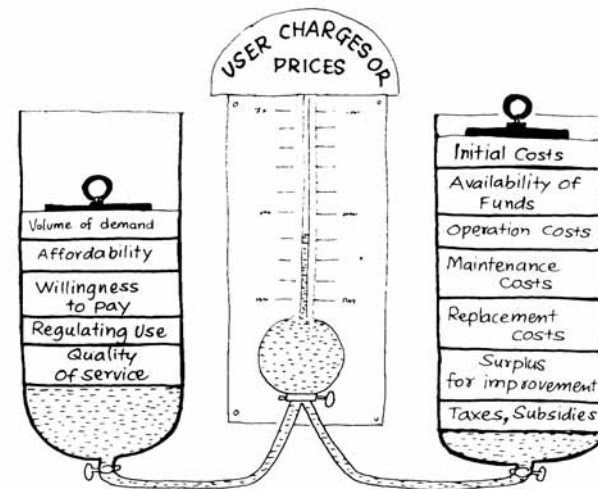
Trainers' notes

This chapter looks at practical applications of user charging for three major urban services - water supplies, low-cost shelter, and urban land development. In the case of water supplies the chapter assumes user charges as the norm and sets out the normal measurements of the viability of a water enterprise. In the cases of low-cost shelter and land development, it describes a variety of methods by which cost recovery is attempted in different countries and cities.

A less didactic approach is needed for discussion of this chapter. It is designed as a prelude to group discussion in which participants describe the methods of cost recovery in their own countries/cities, analyse their effectiveness and debate the possibility of improvements and alternatives. As with the treatment of taxation, the chapter aims to open course members' minds to the variety of instruments which may be open to them.

A. Urban water supplies

1. Urban water supplies are generally expected to be self-financing. There is a long tradition in both developed and developing countries of constructing and managing such supplies through separate enterprises - often municipally owned. Although such enterprises usually need to borrow money extensively to finance capital costs, they are generally expected to repay the capital and interest and meet the operating expenses through charges levied on the consumer. Some consumers do get a subsidized supply (or even a free supply through public standpipes), but the costs will be met by excess charging of other consumers, often industrial or commercial.
2. This principle of full cost-recovery is not always observed. Some water undertakings get subsidies from governmental or municipal budgets. These may be direct subsidies or provision of loan finance on concessional terms. In other cases, water supplies might form part of ministry or municipal budgets, and no direct effort is made to reconcile the specific revenues from water charges with the specific outlays on the supply (which might not, in any case, be clearly defined in the budget). However, these are generally regarded as unsatisfactory or transitional arrangements, with full cost recovery as the ultimate aim.
3. Just why full cost charging is expected is a matter of debate. Potable water supplies are a basic human need, and they are not purely a private good, since they are important for hygiene and the control of communicable diseases. This is the rationale for at least a degree of cross-subsidy within the service, to help poor households. However, a self-financing basis for a water supply as a whole can be justified on at least three grounds:
 - (a) Potable water supplies are not universally provided. In most developing countries, treated and piped supplies are not widely provided in rural areas nor adequately throughout all towns. A “free” supply would involve, some subsidy of consumers by taxpayers who do not have access to the supply;
 - (b) Much water is used as a raw material by industrial and commercial consumers for profit-making operations;
 - (c) Water is usually a scarce resource, and consumers need to be subject to some discipline (an effective argument only when charging is based on metered consumption).
4. A feature of most urban water supplies is their heavy ratio of capital to operational costs. The construction of reservoirs, treatment plants, trunk pipeline and reticulation systems is normally costly, particularly where adequate supplies can only be found at considerable distance. Operating costs vary, according particularly to the degree of pumping required for reticulation, but, compared with most local public services, the labour requirements are small. A further characteristic of water supplies in most developing countries is rapid expansion in demand. This is due to high rates of urban population growth, industrialization and general economic growth, with associated improvements in living standards and expectations. A final factor is that many of the capital assets used in water supply particularly the pipes and machinery - have a limited life, and they eventually need extensive repair or replacement. Because such costs are heavy in proportion to normal operating costs, they can cause exceptional levels of expenditure in a particular year, difficult to meet purely from that year's budgeted revenue. All these factors put pressure on water enterprises to raise sufficient revenue to meet their operating costs, provide for future replacement of plant and machinery, and finance heavy capital investment in expansion.



Demand Pulls and Cost Pushes & Price levels

Financial indicators

5. A series of financial indicators are normally used to assess how far water enterprises are meeting the objectives of cost recovery and capital provision. They are examined not just at a single point of time: comparisons of these indices at normal intervals show the trend in financial performance. These indicators are described below:

- (a) The first financial priority for an enterprise is to remain solvent. This means being able to pay the costs of staff, electricity, chemicals etc., and avoid debts to employees or suppliers. An indicator for measuring this capacity is the QUICK CURRENT RATIO. This is,

The value of current assets (excluding inventories)

Current liabilities

The current assets are cash (including bank balances) and sums owed to the enterprise (mainly in unpaid consumer charges): the current liabilities are sums owed to others - outstanding payments to employees, suppliers etc., deposits and interest owed to depositors. The value of inventories (stores etc.) is excluded because it cannot be readily turned into cash to meet liabilities. Clearly, if the ratio is less than 1, the enterprise is in debt on its current operations, but, if the ratio is high, it could mean that tariffs are too high (unless money is being accumulated to pay for pending capital works).

- (b) Viability and equity are heavily dependent upon collecting water charges efficiently. This depends both upon the speed at which people are billed and required to pay, and the efficiency with which defaulters are identified and action taken against them. Two indicators are relevant. The first is the COLLECTION EFFICIENCY, which is,

Revenue collected

Total billings

It is important, in this respect, to look not just at one year's figures but at trends over time, to see whether efficiency is improving or decreasing.

- (c) A supplementary measurement of collection is the AVERAGE AGE OF CUSTOMER RECEIVABLES, i.e., the average number of months that all outstanding billings have been due for payment. Again, comparisons over time will show whether default is increasing or lessening.
- (d) It is frequently necessary to borrow money to finance capital expenditure. There is, of course, nothing wrong, in principle with such a practice, since the loans should be repaid from the revenue earned by the increased supply. It is necessary to ensure, however, that revenue is adequate to cover debt service. An indicator for this is the DEBT SERVICE COVERAGE which is,

Net annual income*
Annual debt service

(*Net annual income = Gross annual revenues - Operating costs)

- (e) It is important that consumer charges meet operating costs, debt service and provision for renewals. As explained above, operating costs should not normally represent a large percentage of these obligations. The tariffs should be designed to yield a substantial surplus of revenue over operating costs. This is represented by the WORKING RATIO, which is,

Operating costs (excluding depreciation)
----- per cent
Total revenue

- (f) Finally, it is frequently (though controversially) held that the overall financial liability of a water enterprise should be measured by the same test as a commercial enterprise, namely, net income as a percentage of capital invested. This is based upon the assumption that investment in the enterprise can only be justified if it raises the same financial return as an alternative use of the capital. Even if this rationale is not fully accepted (because of the social benefits of water supply), rates of return do provide a yardstick for comparing the performance of different water enterprises. They also provide a useful means for looking at the financial performance of a particular enterprise overall and seeing its trend over time. RATES OF RETURN are:

Net annual income*
----- per cent
Value of fixed assets

*Net annual income = Revenue - (Operating costs + Depreciations)

Ideally the value given to fixed assets should be current value, i.e., what it would cost to construct or purchase the assets now (as opposed to their historical costs). This is rarely done in practice, however.

B. Shelter for low-income groups

Introduction

6. The principle of charging beneficiaries is increasingly being applied to shelter programmes in developing countries. Any substantial subsidization merely reduces the size of the programme and, therefore, the number of needy people who can be assisted. It is seen as unfair to provide some with publicly subsidized accommodation but not others who are equally deserving. Cost recovery can be a means of generating additional capital to increase the scale of provision.
7. This section looks briefly at the implications of the principle of full cost recovery and the extent to which it is followed in practice. It is concerned with low-income shelter schemes which are mainly of four types:
- (a) House construction for rental;
 - (b) House construction for sale (immediately or by tenant-purchase);
 - (c) The sale of serviced sites (again, immediately or by tenant-purchase);
 - (d) Slum improvement, which may include legalization of tenure in squatter settlements.

The categories are not always distinct. Sites-and-services schemes can include building some superstructure, such as latrines, bathrooms, kitchens and, even, a "core" room. Slum-improvement schemes often include some serviced-site provision for those who have to vacate land needed for public services.

Methods of cost-recovery

8. A wide variety of methods is used for cost-recovery. They may be classified as follows:
- (a) *Sale.* Land on serviced sites and any superstructure (which may range from a latrine to a complete building) can be sold. There are various combinations, e.g.:

- (i) Sale can be at a fixed price or by auction (the latter often chosen for plots for commercial or high-income residential development);
 - (ii) Installment purchase can be by loan/mortgage or by tenant purchase, either one with varying degrees of initial down payment;
- (b) **Rental.** Land and/or buildings can be rented in two ways:
 - (i) Rents can be paid by tenants of public-sector houses, flats or commercial premises;
 - (ii) Rents can be paid for the lease of public land (at a price which might include recovery of the cost of on-site or off-site services), the leaseholders constructing and owning the buildings;
- (c) *Taxation.* Initial costs of infrastructure and amenities can be recovered through a special tax (e.g., valorization taxes) or by reassessment of annual property taxes, to amortize capital (loan) and maintenance costs;
- (d) *Charging.* The capital costs of service provision (on-site or off-site) can be the subject of a specific charge. This may be recovered in a single payment, by way of a connection charge, a frontage assessment or a premium associated with the grant of title; in such cases, it may also be covered by a loan. Alternatively, it may be recovered in installments, collected, in the case of utilities such as water, with recurrent operating charges.

Cost definition

9. The extent to which costs are recovered depends partly on the way in which they are defined. Public-sector costs of any improvements on a plot - utilities, superstructure, landscaping etc. - are almost invariably incorporated in cost-recovery practices. There is substantial variation, however, in the extent to which these also include the cost of off-plot or off-site infrastructure, community services and administrative overheads. A midway approach is often taken: estate roads, local reticulation, drainage, sewerage etc. are included in the costs recovered, but not extensions to trunk infrastructure; land reserved for community services is included, but not the cost of constructing schools, clinics and social centres on it. The costs of specific project or estate management staff = charged, but not those of a central housing, planning or engineering department.

Affordability and subsidization

10. Cost-recovery policies are increasingly influenced by a concern that the burden of charges not exclude people totally because of poverty. Attempts are made to ensure that recovery costs are “affordable” by target groups, particularly low-income groups. Affordability is often determined by taking into consideration the incidence of rents, charges, loan repayments etc. and beneficiaries’ willingness to pay.
11. There are several approaches to holding down costs to meet “affordability” targets:
 - (a) Minimization of standards for service provision, building etc.;
 - (b) Specific external subsidization from general revenues, “soft-term” borrowing etc.;
 - (c) Concealed subsidization, by excluding costs, such as land acquisition, administrative overheads, trunk or off-site infrastructure, from recovery;
 - (d) Internal cross-subsidization, by charging above cost for commercial or low-density/high-income residential plots (often by auction or tender).

Subsidization is always a questionable approach to financing a private good and can only be justified if strictly confined to the benefit of the most needy. It is even more questionable in the case of shelter and land as these can be sold eventually to higher-income groups.

Enforcement

12. Experience suggests three elements in determining the success of enforcement. These elements are:
 - (a) Mechanical efficiency of the process;
 - (b) Willing compliance by beneficiaries;
 - (c) Sanctions.

These are dealt with separately below.

13. The first element is the mechanical efficiency of the process. Initial procedures often involve surveying and mapping, preparation of titles and other tenancy, sale or loan documents, and conclusion of legal contracts, often associated with collection of a down payment. This can be an extremely protracted process, outstripped by the physical development and occupation of the scheme. Long delays between people getting the benefits and paying the costs not only create immediate cash-flow problems but jeopardize long-term enforcement prospects.
14. These initial steps have to be followed by a regular process of billing recurrent charges, such as rents, service charges or loan repayments, recording payments and reacting to defaults. It is obviously important that procedures identify a default promptly and that records be produced (if not necessarily kept) on a sufficiently localized basis for the managers of specific estates or projects to take responsibility for chasing arrears. Prompt and accurate recording is technically possible by manual processes, but computerized systems have the best record.
15. The second critical element is willing compliance by the beneficiaries. This is an intangible field, but several factors appear relevant:
 - (a) *The nature of the initial contractual process.* People occupying serviced sites or tenant-purchase housing are more likely to see themselves as entering voluntarily into commitments than slum dwellers who benefit from site improvement. The latter are easier to charge if legalization of tenure is involved, since a title is a more tangible “purchase” than services;
 - (b) *The timing of the initial contractual process.* People are likely to honour their obligations, if contractual agreements are made before they get the benefits, e.g., before occupation of a plot or before provision of services. Conversely, they are least likely to do so, if lengthy administrative delays result in their getting the land or the services initially “for nothing”;
 - (c) *The quality of maintenance.* Occupants become increasingly reluctant to pay loan installments, rents, charges etc., if services are not well maintained, if roads deteriorate, water supplies are intermittent, rubbish is not collected, and so on. Poor maintenance will jeopardize cost-recovery, even where this is not strictly related to the services in question; people might default on repayment of a building materials loan, for example, because the water supplies fail.
16. Finally, the nature and enforcement of sanctions are clearly important. Charging interest on late payment or granting rebates on prompt payment helps to some extent, depending on the rates involved. Promptness in warning defaulters is important, but the critical factor is what happens when all the interim warning and penalty procedures have been exhausted. Foreclosure and eviction are usually the ultimate sanctions, and their use, even in very few cases, is a powerful encouragement to payment. Failure to use sanctions at all can lead to a rapid deterioration in levels of collection.
17. Ultimately, effective collection is a matter of political will on the part of both residents and government. Effectiveness requires a positive view by the community of the benefits secured by a shelter programme (including its ongoing maintenance) and of the commitments into which it entered at the inception of the scheme; it requires also a positive determination by government to recover its costs.

C. Urban land development

Introduction

18. The development of land for urban use - whether residential, commercial or industrial - is expensive. On health grounds alone dense human settlement creates conditions demanding water supply, drainage, sanitation, refuse collection etc. An expanding urban area puts pressure on arterial and city-centre roads as well as new suburban networks. Rising incomes and the traditional urban style lead the occupants of new or redeveloped areas to expect utilities, such as electricity and telephones, social services, such as schools and clinics, and amenities, such as parks and sports grounds.
19. The installation or improvement of urban infrastructure and amenities imposes heavy capital and operating costs on government, but it also yields substantial gains, actual or potential, to the owners of the affected land. Land usually gains enormously in value, when it is converted from rural to urban use or when its services and amenities

are significantly improved. Housing development rarely keeps up with population growth in developing countries, and high rates of return can be earned on housing construction, particularly in middle-income areas.

20. There is a strong case for attempts to meet the public costs of urban development from the gains in land values to which it gives rise. There are at least three reasons for doing so. The first is the fairness of charging the costs of investment to those who benefit from it. The second is the efficiency of facing land developers with the full cost implications of servicing particular types of land use in particular locations. The third is the relative acceptability of charges linked directly and immediately to a tangible service.
21. Various methods have been adopted by urban governments for the recovery of land-development costs. These are categorized under three headings:
 - (a) The taxation of increased land values;
 - (b) The charging of beneficiaries;
 - (c) The public acquisition and development of land.

Taxing increased land values

22. The most conventional instrument for taxing land values is the annual property tax. Being an annual tax, it is unlikely to yield sufficient revenue to meet capital costs of new infrastructure and amenities directly and fully, but it might provide sufficient additional revenue to service and repay a loan for capital development. The question is how far the revenue from particular pieces of taxed property increases specifically in response to increments in value arising from public investment. This depends first on the basis of assessment: a site-value tax will, in theory, respond more immediately than one based on annual rental values or the capital value of land and improvements, since it should yield increases in the tax base ahead of the development or redevelopment of a plot by its owner. It depends equally on whether revaluation for tax purposes follows directly upon the public investment. Normally, any physical development on a plot is subject to specific re-assessment, except in the case of site-value taxes. However, improvements in roads and other trunk infrastructure are not normally reflected in the property-tax base until a general periodic revaluation of the whole city is undertaken - often at intervals of five years or more. Nevertheless, a specific revaluation of an area subject to general improvement has, on occasion, been undertaken.
23. A second taxing instrument is a specific levy - usually once only - on increases in land value; this is generally known as a betterment tax. This may be levied on accrued or realized increments in land value. On the former basis, it will be payable by landowners as soon as the increase in land value has taken place, even though the land has not been sold. This creates difficulty for government, in assessing what the notional increment in value has been, and for landowners, in paying the tax when the increase has not been turned into cash. Few governments surmount both these administrative and political hurdles. It is most common to tax realized increments in value, i.e., to impose a betterment levy only when land is sold. While easy to administer, such a tax - in effect, a capital-gains tax - can encourage landowners to hold on to land and inflate market prices.

Charging the beneficiary

24. Charging owners for the capital costs of services provided directly to their plots or immediate neighbourhoods, such as road access, drainage or sewerage, is a widespread practice. Capital costs are simply divided between owners, usually in proportion to plot size or frontage. Various terms are used for these charges such as special assessments, frontage charges or initial service premia (the latter being attached to the issue of new leasehold title in an urban area).

Box 6

In Mexico, landowners contribute to the capital cost of infrastructure serving their property, but mainly on an informally-negotiated rather than statutory basis. The form of contribution varies as does the percentage of cost covered; a rough attempt is made to vary the degree of contribution according to capacity to pay. A large-scale industrial or housing developer would be expected to install all the infrastructure or meet all its costs; a middle-class suburb might be expected to contribute 50 per cent of the costs of road paving or a sewer, low-income residents might offer locally available materials such as sand and stone, and some manual labour. The public-sector contribution may come from a variety of national, state and municipal funds.

25. These charges do not, however, recover the costs of area-wide investments in infrastructure or amenities, such as a trunk road, a main outfall drain or a new park. A wide scope of recovery is attempted by the valorization taxes levied most notably in Colombia. Through these lump-sum levies, the cost of a specific urban-development project is shared among all landowners in its "zone of influence". The target yield is based upon the capital costs of the

project, with a margin for administrative overheads; distribution among landowners is based upon a formula, of which plot size or property value is normally the basic component but with weightings for factors such as proximity to the project. Valorization taxes have been particularly useful to Colombia in financing neighbourhood road schemes, but great difficulty was experienced in trying to use this tax to finance cross-city infrastructure which was not clearly reflected in changes in local land values.

Public acquisition and development

26. In a third approach, urban government seeks to recover costs by acting as a land developer itself. This takes a number of forms.
27. A public authority might acquire a large tract of land, usually on the periphery of a city, install urban services and then sell or lease the land to private developers (apart from the plots reserved for public purposes). This has been the model for the development of entire new urban communities by the British New Town Corporations. Very large suburban developments have been financed in this manner by the Delhi and Karachi Development Authorities and the Malaysian Urban Development Authority. The operation is intended to be self-financing and is normally carried out by special public corporations rather than municipalities, capitalized by central-government loans. The feasibility of the approach depends heavily on the terms on which land is acquired. The developers' "profit" on the conversion of land to urban use can only be fully secured for the public sector if the original acquisition of land is at previous use value. In New Delhi and Karachi this has been possible because peri-urban land was already in public ownership, and compensation for eviction could be restricted to current use. Compulsory-purchase legislation might also enable acquisition values to be pegged to current use. This may involve however a considerable political risk. Even so, there are dangers that large-scale land banking will lead to land-price inflation well beyond the built-up zone. There are also risks of collusion between urban developers and development authorities, so that the former rather than the latter benefit from the value gain.
28. A variation on this process is land readjustment or "reblocking", as practiced in Japan and the Republic of Korea. Owners of land due for urban settlement are required to surrender it in full to the responsible governmental agency. The latter installs urban services, retains a portion for public purposes, sells off a further portion commercially and returns the balance to the original owners in proportion to their previous holding. The owners are compensated for the reduction of their holding by the high value of the balance in its serviced condition; government recovers its costs by sale of the portion it neither retains nor returns. This process has been politically attractive and avoids the use of public capital in land acquisition. It does, however, give government a vested interest in maintaining high serviced-land prices and is not beneficial to low-income groups.
29. "Excess condemnation" is a further variation. When land is acquired for a specific purpose typically a new road - adjoining land in excess of requirements is also compulsorily purchased. This is then sold off at a high value, in view of the adjacent public investment.
30. Finally, government - usually in the shape of a municipality or an urban development authority - may join in partnership with private enterprise in developing particular tracts of land. This has been most widely practised in redeveloping city centres in western countries. The public sector contribution to the equity is often the access to the land, the value of the infrastructure and the goodwill involved in the provision of planning and other consents; the liquid capital for superstructure is mainly supplied by private enterprise.
31. Clearly, the choice made in individual countries and cities between different methods of recouping urban-development costs depends on a variety of historical, legal and local factors. Three significant variables are worth mentioning:
 - (a) *Development or redevelopment.* Devices, such as public acquisition and development, readjustment or betterment taxation, are used in situations where large tracts of land on the urban periphery are being brought into urban use for the first time and where it is not feasible to require developers to undertake all the capital works themselves. In such situations the installation of services tends to be a comprehensive and simultaneous operation, with clearly identifiable "once-off" capital costs. This coincides with a change in land values which is also both dramatic and relatively easy to attribute to the public investment. Progressive development or redevelopment of existing urban settlement is not susceptible to these methods of cost recovery. The nature and scale of the public investment are heterogeneous, and it is not easy to distinguish the impact of public investment on gains in property value from the impact of other

factors. Property-tax revaluations or frontage charges might help recover costs of specific services in the immediate neighbourhood but do not cover those of non-localized improvements.

- (b) *Land tenure.* There are two important tenurial variables - whether freehold title is in public or private hands, and whether land is occupied legally or illegally. Examples have already been given of the political advantages of public ownership in limiting the compensation paid to agricultural users on conversion to urban use. In the case of neighbourhood improvement schemes, legalization of tenure may be the main instrument for securing cost-recovery from squatter occupiers.
- (c) *Administrative capacity.* Administrative skills and political support are tested by virtually all the methods described. Valuation is involved, for example, in betterment taxes, property tax re-assessment or public land acquisition. Clearly, much depends upon the availability of these capacities to urban government.

Performance

32. As might be expected, the success of different approaches varies greatly, according to place and time. Land re-adjustment, for example, has made contributions to the development of cities such as Nagoya, Japan, and Seoul, Republic of Korea; the phenomenal expansion of Delhi has been greatly facilitated in the past by the land development and sale operations of the Delhi Development Authority. However, two weaknesses are widespread. The first is the relatively restricted range of urban-development costs which are actually recovered from beneficiaries. It is rare for development charges, by whatever method, to recover costs of expansions in trunk infrastructure, such as bulk water transmission and treatment, or social-service provisions attributable to specific area developments. The second is that emphasis on cost-recovery often leads to concentration of effort on types of urban development yielding high (or secure) rates of return. This tends to be the middle-income or high-income housing estate or the large shopping complex. Low-income groups, petty traders etc. might be neglected or positively harmed by such approaches. They might be squeezed out of occupying an area benefited by public investment, if taxed or charged on notional gains in land value which they are unable to turn into cash, except by selling and moving out. Various types of exemption or cross-subsidization are possible, to avoid such dangers, but might not be adopted, if the political balance is unfavourable or the emphasis on maximizing financial returns too great. Nevertheless, charging beneficiaries does favour equity, insofar as it removes the burden of financing specific costs of urban development from the taxpayer at large.

VII. LOCAL REVENUE ADMINISTRATION

Trainers' notes

This chapter covers the administration of revenue, whether taxes or charges. This includes the process of identifying those liable, assessing liabilities and enforcing payment.

The chapter analyses the risks of evasion, avoidance and corruption, and the characteristics of a revenue which maximises or minimises these risks. It should be used as the basis for an exchange of experience between participants. This will tend to dwell on practices which "work" or "don't work". The trainer's task is to use the chapter's framework to analyse why they work or fail.

A. Introduction

1. Revenue administration is concerned with the implementation of fiscal policy - with the process of identification/registration of taxpayers and consumers, of assessment and collection of charges and of enforcement of procedures. It is concerned with the administrative feasibility of using a local tax source or charge - one of the five general criteria by which levies should be evaluated. Two particular measurements can be used:
 - (a) Realization - the proportion of actual yield to the potential of the revenue source (the potential being the yield if everyone who should pay does pay and pays his or her full liability);
 - (b) Cost -the resources (money and labour) used in collecting revenues as a proportion of the yield.

2. Fiscal policy and revenue administration are interlinked. If a revenue source cannot be administered effectively (i.e., if yields fall far short of potential) or efficiently (i.e., if costs represent an unreasonable percentage of yields), it is necessary to evaluate substitutes.

Realization

3. In relation to realization, the objectives of revenue administration are to ensure that
- (a) Everyone who should pay a tax or charge, does so;
 - (b) Everyone pays the right amount;
 - (c) All revenue is properly brought to account by those who collect it.
4. This means:
- (a) Identifying all those liable to pay;
 - (b) Assessing them correctly;
 - (c) Collecting the payments as assessed;
 - (d) Checking who has not paid and enforcing sanctions;
 - (e) Controlling actual receipts by collectors to make certain they are brought to account.
5. Realization is threatened by two factors:



- (a) Evasion -the desire of taxpayers to avoid paying a tax or charge, or to pay less than they should;
 - (b) Fraud and collusion - the temptation to assessors and collectors to:
 - (i) Allow payers to avoid or reduce payment in return for bribes;
 - (ii) To conceal and retain revenue they have collected.
6. These lead to the following risks:
- (a) Identification:
 - (i) The taxpayer evades identification;
 - (ii) The collector identifies but fails to impose the tax/charge.
 - (b) Assessment:
 - (i) The payer conceals his full liability;
 - (ii) The collector is bribed to under assess.
 - (c) Collection:
 - (i) The taxpayer fails to pay;
 - (ii) The collector fails to enforce;
 - (iii) The taxpayer pays, but the collector retains the money.

Box 7

One Brazilian municipality draws a substantial part of its revenue from a service sales tax on the local hotel trade. It has given some tax rebates to the local laundry in exchange for regular information on the numbers of pairs of sheets laundered for each hotel -a thorough check on the daily occupancy rates reported by the hotel owners!

7. The art of revenue administration is to devise procedures which minimize all these risks. An important element of fiscal policy is also to choose revenue resources to which risk minimization procedures readily apply. The following factors relate to the evaluation and design of procedures:

- (a) *Identification of payers.* Procedures should make it difficult for payers to conceal their liability and easy for government to check that they have been identified by the revenue staff. It helps if:
- (i) Identification is automatic, e.g., everyone who gets an electricity supply pays a bill which also includes a local tax on services and utilities;
 - (ii) There is an inducement to people to identify themselves, e.g., people have to buy a ticket which includes entertainment tax, in order to enter a cinema;
 - (iii) Identification can be linked to other sources of information, e.g., registrations of land transfers can be used for identifying property-tax payers;
 - (iv) Liability is very obvious, e.g., the number of permanent stalls in a market which should be paying market fees is known exactly and by everybody.

Conversely, it is difficult to identify payers when liability is easily concealed, e.g., the ownership of a radio. It is also difficult to check on fraud and collusion when the headquarters of the revenue department has no easy information on how many people should have paid, e.g., how many lorries passed through a distant road post or how many casual hawkers used a market.

- (b) *Assessment.* Procedures should make it difficult for payers to conceal their full liability or for assessors to under-collect. It helps if:
- (i) Assessment is automatic, e.g., a fixed percentage on the hotel bill or a cinema ticket;
 - (ii) The assessor has little or no discretion, e.g., a fixed fee on a market stall per size, location and type of business;
 - (iii) The assessment can be checked against other information, e.g., fees for extraction of building materials can be checked against quantities supplied by a governmental contractor.

Conversely, it is difficult to ensure full assessment where full liability can easily be concealed or assessors exercise considerable discretion, e.g., where the business-licence fees are established by a visit to individual premises to verify size and type of business etc.

- (c) *Collection.* Procedures should ensure that payment of liabilities is enforced and that actual payments are brought fully to account. It helps if:
- (i) Payment is automatic, e.g., coin-operated public telephones; "pay as you earn"/withholding of tax from salaries, contract payments etc.;
 - (ii) Payment can be induced, e.g., when payers need tax-clearance certificates to get contracts, licenses etc. (tax-clearance procedures need to be used with care; they can be very unfair to payers, if there is no accurate and prompt procedure for issuing assessments, recording payments and providing receipts);
 - (iii) Default is obvious, e.g., a motor vehicle has no current license disc or number plates;
 - (iv) Penalties are really deterrent. e.g., a high rate of interest on all late payments, and are enforced (penalties also need to increase strongly the longer payment is overdue);
 - (v) Actual receipts are clear to the controllers in the central tax office. e.g., if fixed-fee tickets are issued, rather than receipts with carbon copies which can be altered;
 - (vi) Payment is easy, e.g., it can be made at local cash offices, banks, post offices etc., without long delays or travel.

Conversely, it is difficult if there is no real pressure on people to pay and no clear evidence how much has been collected. It is also difficult if taxpayers are put to great inconvenience in paying, having to travel distances and wait in queues.

Cost

8. Cost is measured by the proportion of a revenue resource devoted to its assessment and collection. Collection costs, as a percentage of yields, can be kept low where:
 - (a) Assessment and collection are linked to some other administrative process (e.g., a surcharge on electricity bills or petroleum duty; pay-as-you-earn or withholding);
 - (b) A number of revenue sources can be collected in a single transaction;
 - (c) Individual tax or fee payments are large (i.e., there is a substantial revenue return on the cost of collecting each liability), e.g., with a motor-vehicle tax;
 - (d) Transactions (assessments and collections) are physically concentrated;
 - (e) Assessment and payment can be made automatic (as with vehicles passing through a road toll).
9. Conversely, costs can be very high where:
 - (a) A fee or tax is very small;
 - (b) Assessors and collectors are dealing with only one fee or tax;
 - (c) Collection is geographically dispersed;
 - (d) Visits have to be made by collectors to tax payers' houses, business premises, etc.

B. Conclusion

10. There is no standard set of roles or practices which can make revenue administration watertight, but certain lessons can be drawn from the previous analysis and experience. Revenue sources which rely upon house-to-house, business-to-business assessment and collection by officials are difficult to make really effective and efficient. Clearly, every effort has to be made to improve their administration by measures such as:
 - (a) Minimizing the discretion of assessors who have face-to-face contact with taxpayers (e.g., by using formula assessments of property);
 - (b) Rotating personnel;
 - (c) Using independent evidence to cross-check assessments;
 - (d) Applying self-assessment procedures, if strongly supported by sample checks and sanctions for under-declaration;
 - (e) Keeping comparative data on performance of assessors and collectors to identify those apparently needing close supervision.

Equally, effort is needed to identify and exploit revenue sources, which do not offer scope for evasion, collusion etc. These include:

 - (a) Taxes or charges which are paid by automatic processes, e.g., taxes on fuel, electricity consumption or entertainment;
 - (b) Taxes or charges where the payer "comes to the municipality" rather than vice versa, e.g., octroi, where the taxable goods have to pass through one inspection and collection point;
 - (c) Taxes or charges with a ready and punitive sanction for default, e.g., disconnection of a water or electricity supply.
11. Good, comprehensive, up-to-date information is vital at all stages of identification, assessment and collection. Co-ordination and exchange of information is important. For example, information on the use of a building for commercial purposes is needed for trading licences, planning control and property-tax assessment, and should be exchanged regularly between the departments responsible.
12. Finally, the ease or difficulty of revenue administration is heavily influenced by the attitude of the taxpayer. No one enjoys paying taxes or charges but there are differences in the degree of acceptance or resentment which affect the extent to which people actively seek to avoid their obligations. Compliance can be encouraged: simply explaining the purpose and calculation of a tax or charge helps, and so do collection arrangements which do not subject the payer to great inconvenience -for example, having to wait in a long queue or travel a long distance to pay a water charge or license a shop. Most important of all is a visible connection between a tax or charge and the quality of the service for which it is paid. A property tax is acceptable if the streets are repaired and the refuse removed: an increase in water charges might not be resisted, if supplies become regular.

VIII. INTERGOVERNMENTAL TRANSFERS

Trainers' notes

This chapter describes and analyses different types of intergovernmental transfer, chiefly revenue sharing, block grants and specific grants. It looks at the merits and demerits of these options and major issues surrounding the assessment and distribution of transfers - in particular the estimation of the spending needs of recipient authorities and their capacity to meet these from locally-raised resources. Finally the chapter gives three illustrations - of revenue sharing in Brazil, a formula block grant system in India, and a specific grant system in Indonesia.

This subject will require two or three sessions. The trainer will need to go through the alternative types of transfer and the major principles of distribution, section by section, to ensure comprehension. This could be followed by participant presentation of country experience or examination of a country case study. A prescriptive approach is not appropriate since the need for transfers is highly dependent on the distribution of spending functions and revenue resources between levels of government, and the type of transfer used is heavily tied to the constitutional and historical position of local government. However, it is well to stress:

- (a) The importance of a formula rather than arbitrary basis of distribution;
- (b) The desirability of determining the size of transfers before recipient authorities prepare their budgets.

A. Introduction

1. This chapter deals chiefly with allocations of funds from central governments to local governments or development authorities responsible for urban services and development. Much of the content applies equally to transfers from state or provincial governments to local authorities in a federal or other multi-tier system. These intergovernmental transfers take a number of forms.
2. The first form is capitalization - the investment of equity capital by central government in a local authority. The latter is expected to utilize it for income-earning projects, such as utilities, markets and slaughterhouses. Equity is different from a loan; it may be transferred or sold into other hands but it is not repayable by the recipient enterprise. It may, however, be expected to yield dividends for the central government as investor. Urban-development authorities and utility corporations are frequently financed in this manner, and central government may also invest equity in undertakings administered by provincial or local governments.
3. A second type is tax-sharing - the allocation, in whole or in part, of specific central-government revenues to local government. There are many examples: some are made under revenue-sharing obligations imposed by federal constitutions. In Nigeria, for example, 15 per cent of federal revenues are distributed to local governments. Such assignments are not restricted to federations, however. The Philippines allocates 20 per cent of net national internal revenue to local government, for example: whilst in Tunisia municipalities receive 10 percent of taxes on production and consumption services and 6 per cent of all national taxes.
4. The most familiar form of transfer is grants, subsidies, contributions or subventions. The titles vary, but their nature is the same - a transfer of funds from the budget and accounts of the central government to those of a self-accounting local authority. These are usually discretionary payments. Constitutions or statutes might oblige central governments to make grants to local governments, but, even then, the amount of the payment is not usually prescribed by law.
5. Several basic issues are common to different types of transfers. These will be discussed individually in the remainder of the chapter.

Box 8

Criteria for intergovernmental transfers

Three basic criteria are used in calculating intergovernmental transfers and they can be used singly or as a combination.

Need	Distribution in function of need for capital investments. The criterion most commonly used is population size, including various sub-criteria for age and sex distribution. Needs for schools, basic services and health care are usually closely related to population size and are often used as a basis of grants or subsidies tied to investments.
Equity	Distribution in function of equity. This criterion assumes that whatever the size or range of sizes, local authorities have similar basic functions and recurrent expenditures. Examples are solid-waste removal, street cleaning, lighting, road maintenance, public security and civil registry. Subsidies usually intended

	to cover recurrent expenditures are distributed on an equal basis to all local authorities belonging to the same categories.
Performance	Distribution of subsidies or grants in function of performance. This criterion is intended to provide incentives for local authorities to improve their performance measured according to a given set of objective indicators. Indicators may include quantity of local taxes raised per capita and/or reduction of recurrent expenditures. In special cases, these criteria have included water consumption, energy consumption and environmental protection. The overall intention is to enhance investment capabilities of local authorities.
	In many countries a combination of the above criteria is used and can often include other criteria which correspond to regional and/or national planning policies and strategies. It is useful, however, to clearly distinguish between criteria which are designed to assist local authorities and criteria corresponding to national or regional development objectives in order to avoid any conflict. For example, special criteria for "arid zones" may counterbalance the "equity" criteria.

B. Distribution of shared revenues

6. Taxes collected by central government but assigned, wholly or partly, to local authorities can be distributed in two ways. Each region can get its appropriate share of amount of tax collected within its borders; tax yields are assigned according to their origin. Alternatively, the local share can be pooled and distributed according to some need criteria which do not relate directly to the origins of the tax. Which approach is the best? Three issues arise in resolving this question.
7. The first issue is basically technical - the ease or difficulty of determining the origin of revenues. The collecting point is not an automatic indication. Commercial income taxed in town A, where a company has its headquarters, might derive from branches in towns B and C: a sales tax imposed when goods leave a factory in city X might be passed on to consumers all over the country. The second issue concerns incentives. If a tax is levied and administered by the national government, there is normally no direct connection between the amount a local authority receives and its own "fiscal effort". There are cases, however, where local co-operation can be important to effective tax administration. A local authority might possess the only field network capable of identifying all those liable to pay a tax, or its own tax, wage or licensing systems might hold information valuable to the central tax-assessment process. In such cases, assignment of shares according to derivation is a far more effective incentive to local-government co-operation than distribution from a central pool, since each authority benefits fully and visibly from its extra degree of effort. The third and most fundamental -issue is the problem of competition for resources between those regions which feel that they make the greatest contribution to national revenues and those which might be regarded dispassionately as having the greatest "need". This is a matter for political resolution.

Box 9

Brazil combines both forms of revenue sharing. Municipalities receive:

- (a) 25 per cent of state value-added tax, three quarters distributed according to derivation, one quarter by formula depending on population, area etc.;
- (b) 18.5 per cent of federal income and excise taxes, (rising to 22.5 per cent by 1993); this is distributed largely by population but weighted in favour of sparsely populated municipalities.

These criteria are used to strike a balance between derivation and equalization.

Tax-sharing or grant-in-aid support

8. If taxes are levied and collected by central government, assigning a share to local government might appear little different from paying grants. Protagonists of local autonomy are apt to dismiss tax-sharing as no better than grants-in-aid and much inferior to the devolution of equivalent direct taxing powers. This is clearly impossible to resolve in the abstract. Much depends upon the buoyancy of the taxes assigned and the size of the local share, and upon the elasticity and flexibility of an alternative grant system.
9. First, although the assignment of a tax share might be as discretionary as the calculation of a grant, it would be unusual for central government to vary an assignment to the disadvantage of local authorities without consultation and agreement. Secondly, if the shared tax is elastic, local authorities receive automatic growth in revenue; increases in grants, however, are purely discretionary, and considerable pressure is often necessary to secure adjustments in formulae to reflect the rising costs of local functions. Devolution of a productive tax source might

not be a practical alternative to sharing of a central levy, either because of administrative constraints on "localizing" a tax or because of political unwillingness on the part of central government to surrender taxing powers in any form.

10. Tax-sharing does convey a slightly different political nuance to the making of grants-in-aid. The idea of sharing taxes is consistent with an image of partnership between levels of government in the performance of public functions. Grants are inherently patronizing; reliance on them can give an impression of poverty and encourage a beggar-type posture by local government.
11. One weakness of tax-sharing is its vulnerability to irresponsible administration by central government: delay in paying over their shares can impose cash-flow problems on local governments. Another problem is the inability of local authorities to vary the rate of a shared tax. From this point of view, a discretionary surcharge on a national revenue - "piggy-backing" - is preferable to a fixed share of a centrally determined tax rate; surcharging is only advantageous, however, if central government limits its basic rate so as to leave room for a substantial local addition.
12. These differences between tax-sharing and grants systems generally work in favour of local government. The advantage depends, however, on the elasticity of the tax shared and the relationship between the scale of the assignment and the expenditure needs of local authorities.

Types of grant

13. Grants include the following types:
 - (a) Grants towards the cost of specific services or projects, based upon a fixed percentage of agreed local expenditure on them. This can be a 100 per cent subsidy; alternatively, it can "match" a contribution from local-authority revenue, according to a predetermined ratio;
 - (b) Unit-cost grants, based on a fixed sum per unit of service (e.g., Rs. 500 per kilometre of road maintenance or Rs. 100 per primary school pupil). They may be weighted to take account of local cost variations;
 - (c) Multipurpose development grants which may be allocated by local authorities to a specified range of functions, according to stipulated guidelines (e.g., labour intensity or employment creation). These grants tend to have a strong infrastructural bias - roads, drainage, irrigation, flood control - but investment in direct agricultural or industrial-production programmes is sometimes covered as well). Expenditure on salaries, routine maintenance or social services is frequently, but not invariably, prohibited;
 - (d) Multipurpose equalization grants (e.g., aimed to "top-up" direct local incomes in areas of below-average or "below-standard" fiscal capacity);
 - (e) Multipurpose contributions to balance local budgets, reconciling local revenue with expenditure. These are often known as "block" or "deficiency" grants. They may be based upon an actual budget deficit or may be estimated to meet the gap between expenditure needs and potential local revenue, as defined by national standards.

Specific or multipurpose transfers

14. Some forms of transfer determine the purpose for which they are spent. Specific, matching and unit-cost grants fall into this category; so do equity-capital contributions invested in a single-purpose authority. Other types represent general contributions to the expenditure of local authorities which retain discretion over the specific purposes and programmes to which they are devoted. Tax shares, revenue-equalization grants, multipurpose development grants, block and budget grants have this general-purpose character.

Box 10

In Indonesia, municipalities receive 65 per cent of the land and buildings tax (levied and assessed by the central government but largely collected by the municipalities) plus a variety of grants, including:

- (a) A grant, covering all the salaries and allowances of established civil servants (including teachers);
- (b) A per capita grant for infrastructural development;
- (c) An education grant, covering construction and repair of buildings (distributed according to plan targets and service deficiencies);
- (d) An education recurrent cost grant (for miscellaneous school expenses);
- (e) A health grant, consisting of two elements: a per capita grant for drugs, and a contribution to the construction of new clinics etc. (distribution according to plan targets and service deficiencies);
- (f) A road construction grant (assessed against project bids).

The earmarking varies from highly specific control and planning in the case of personnel costs and new construction of schools and clinics, to very broad limitations on the use of infrastructural development grants. The varying ability of the central government to prescribe targets for local development in different sectors is reflected in these conditions.

- 15. The differences are not absolute. A specific-purpose allocation might still leave the recipient authority with considerable discretion on how it is spent. A school or health centre construction grant in Indonesia, for example, may leave the choice of location to the local authority. Conversely, limitations may be placed upon the use of multipurpose grants. Certain types of expenditure may be excluded; public works programmes characteristically exclude financing of offices or social services.
- 16. A specific allocation might be justified where local authorities need to be stimulated to make expenditures, consistent with national policy, which they would not have chosen to make themselves in the desired manner or on the desired scale. This presupposes that a uniform or prescribed minimum level of expenditure is really of national importance and that it is technically feasible for central government to define it. It also presupposes that national government has no better instrument than this for encouraging local compliance. Specific allocations might be particularly important in federations, such as the United States of America, where central government has no power of direction over state and local levels of government.
- 17. Nevertheless, transfers should not rely on exaggerated perceptions of central capacity to prescribe what expenditures are useful and relevant in local circumstances; much national developmental "targetry" falls into this trap. In the field of economic investment, such as small-scale industry or agriculture, allocations to a broad developmental range of options are most likely to be effective; central government may retain a veto over local choice, but the initiative in choosing precise programmes is best exercised locally. Furthermore, specific allocations should not outstay their utility: once the desired activity has been stimulated, local authorities should become committed to it, and the central financial assistance can be absorbed in multipurpose aid.

Matching grants

- 18. A related issue is whether grants to provincial or local authorities for specific purposes should be on a matching basis, dependent upon some ratio of contribution from the recipient's direct revenues. The matching grant is a classic device for stimulating local-government concern for a new or neglected task to which central government attaches importance. As an intervention, it arouses more positive responses than some form of statutory order. There are however, two criticisms of matching grants.
- 19. The first charge is that they benefit rich areas more than poor. By their ability to spend from their own resources, wealthy areas can earn large central matching contributions, accentuating existing disparities in levels of service and development. This is a valid criticism of many matching grants, but they do not have to operate in this way. The United States of America varies the ratio of many of its matching grants to states, according to the average per capita income of each state: high-income states get a lower proportional contribution from the federal government than others. The matching is not necessarily "open-ended"; a contribution may be offered as X per cent of total expenditure up to a prescribed limit. The second charge is that matching grants distort the pattern and priorities of

local expenditure. Local authorities shift funds within their budget to attract central contributions. Thus matching grants encourage a certain level of expenditure on a service, not necessarily a set standard of achievement.

20. A matching system preferred by central governments (and international aid agencies) involves the use of national funds to construct a capital asset -a road, school or hospital, for example -on condition that local authorities operate and maintain it. This can be a pernicious practice. The central government gets all the credit for building some vote-catching new facility, often to standards or in locations inconsistent with local priorities, but local authorities get the headaches of operating it, including an expenditure burden which is likely over time to exceed capital costs substantially. The very fact that the central government is not going to maintain the project often leads to construction designs which inflate operating costs.

C. The definition of expenditure needs

21. The measurement of expenditure-need is critical to most types of intergovernmental transfer. All types, except tax-sharing and grants for matching or topping up local revenue, are related to some actual or desirable level of local-government expenditure, either on a particular function or project, or in general. Defining what level of expenditure should be assisted and what is the expenditure need are issues in central/local relationships.
22. There are two broad approaches to the definition of local expenditure-needs for the purposes of central-government allocations:
- (a) Allocations can be based upon the estimate put forward by each recipient authority, subject to such amendment as central government wishes to impose;
 - (b) Allocations to individual authorities can be based upon objective criteria which are not related to their own budget proposals, to be measured in terms of:
 - (i) The functions performed by authorities;
 - (ii) Their general capacity for expenditure.

Expenditure needs: historic costs

23. The first approach is most commonly used for calculating grants to individual authorities. Qualifying expenditure is calculated on the basis of estimates submitted by each authority, consisting of:
- (a) The cost of services at their existing level;
 - (b) Increases argued "on their merits".

These elements are based, in turn, upon the historic growth of expenditure in each locality and the success of an authority in convincing central government of the need for whatever improvements, increased inputs or expansions are proposed in its current budget or development plan.

24. The problem, of course, is that existing levels of service expenditure might (and frequently do) contain considerable disparities between areas, reflecting historical development rather than an objective assessment or comparison of need; they usually favour central or economically prosperous areas. Moreover, increases assessed "on merit" involve largely subjective comparisons which often favour developed areas, because of their superior political weight or executive capacity. They can ... convince central ministries of their "needs", because they have influence or because they can produce carefully prepared or plausible proposals.

Assessing expenditure-needs: objective functional criteria

25. The second approach is to assess the expenditure needs of individual authorities by use of objective criteria which do not relate to levels of current expenditure. The problem lies in finding forms of measurement. There is a basic difference between the criteria used for specific and - multipurpose transfers.
26. For specific transfers, need will be based on the costs of a particular service, project or programme and some measurement of demand for it. An educational subsidy might be based, for example, upon unit costs for types of schooling or instruction, multiplied by the relevant age-group population of each area. Road development or maintenance grants might be based on unit costs per kilometre, varying with road width, and weighted according to traffic density, topography, soil structure and other appropriate factors. A most ambitious attempt at costing services was made by the Zakaria Report on Municipal Finance in India. This report examined each urban service, such as roads, drains, lighting, water, sanitation and recreation, and estimated unit costs per head of population in

large, medium-size and small towns; it was proposed as a basis for assessing the overall expenditure-need of every urban authority.

27. Multipurpose allocations can be calculated, on the Zakaria-Report basis, by aggregating the costs of each individual function, using standard criteria based on unit costs. A most comprehensive costing is used for distributing national tax shares to individual local governments in the Republic of Korea; unit costs have been estimated for 30 separate items of local expenditure. It is an extremely contentious process, however, since the "need" for many functions is difficult to assess uniformly; topography and climate make radical differences to drainage requirements, for example. There are technical difficulties involved in prescribing uniform expenditure levels in some fields. A distinction can also be drawn between services or components of services where a standard or minimum level of provision is a matter of high national priority and those which might be left to local, or even individual, consumer choice.
28. A compromise approach has been used by the government of West Bengal in projecting local-government expenditure to assess eligibility for deficit grants-in-aid. Actual levels of general expenditure have been taken as a base, but provision is also included for the debt-servicing and operating costs arising from the centrally-planned Urban Development Programme.

Assessing expenditure-needs: general spending capacity

29. Aggregating individual functional costs is one approach to assessing expenditure-needs as a basis for multi-purpose allocations. It poses technical problems of measurement and data collection; it also ignores the advantages of allowing local authorities to choose between objects of expenditure, where high national priority is not involved or is difficult to translate into precise units of provision. The alternative is to use objective criteria for calculating a desirable overall level of local expenditure, either on all functions or on the range of functions to which the allocation is devoted. This aims to give local authorities a standardized capacity for expenditure without attempting to prescribe or cost the components (at least, not all the components -such a formula might still prescribe certain uniform elements of expenditure).
30. Multi-purpose grants or tax shares are frequently based on broad criteria which define need in terms of overall capacity to spend rather than individual functional costs. The most common basis of allocation is population. The Indonesian infrastructural grant to municipalities is on a straight per capita basis, and population is a large factor in the United Kingdom rate-support grant distribution, but weighted by the proportion of children and old people to reflect heavy local-authority commitments on educational and social-service expenditures.
31. Area is a second factor frequently appearing in distributive formulae. Weighting can be given simply to territorial size or to the ratio of area to population. Low-density areas often attract high allocations, because of the per capita costs of providing services to scattered populations. In contrast, high-density urban settlement is occasionally recognized as generating above-average expenditure needs.
32. A third factor, often taken into consideration in distributing multi-purpose funds, is relative income. Allocation can be weighted in favour of poor areas, to stimulate development, bring services to a standard level, assist in relief measures or compensate for low direct revenue potential. Favouring low-income areas is clearly a critical element in any redistributive policy aimed at reducing disparities. The desirability of this mechanism is subject, however, to the availability of data for comparing standards of living and development. Virtually all countries produce national income statistics, but relatively few have reliable data by localities.
33. Local authorities frequently argue that they are faced with fixed overhead costs which do not vary proportionately with population, area and income: big and small cities alike have to maintain councils, departments and the like. Central/local relationships are partly a political balancing act, and big disparities in the distribution of funds can cause keen resentment, whatever their statistical justification. Distributive formulae often try to meet these considerations by one of two devices - reserving a proportion of the total allocation for equal shares between recipient authorities or establishing a fixed minimum allocation to each authority.
34. Although basing multi-purpose transfers upon such broad criteria avoids prescribing exactly how money should be spent, the weighting given to different criteria should be applied bearing in mind the responsibilities which local authorities have to meet. Population is a dominant factor in relation to education, for example, with area and income levels making a marginal difference to unit costs or priorities for new development: area and, to a lesser extent, income levels might be important in respect to transport: income levels might be the most critical element

where responsibility for agricultural or industrial production programmes are concerned. The relative significance of these responsibilities within local budgets affects the satisfactory balancing of distributive factors.

Expenditure-needs: cost differentials

35. Equal amounts of expenditure do not buy equal amounts of service. There can be significant variations between areas, for example, in the costs of labour or of essential materials. To some extent, these variations might balance out: labour rates might be low in a remote area, offsetting heavy transport costs for materials. Any fair assessment of expenditure needs has to identify and reflect the - factors which make significant differences to the local costs of services and programmes.
36. Regional retail-price indices are available in most countries and might be seen as a ready guide to cost differentials in public services. These indices can be very misleading, however. They are usually heavily weighted by the costs of items which are important in household budgets - food, clothing and rentals, for example -but these might have little relevance to the components of local-government expenditure. Allowances for cost variations need to be based on indices relevant to. I public expenditure patterns.

D. Relationship of central-government transfers to - local revenue capacity

37. The size of central-government transfers is often related to the amount of direct revenue which local authorities raise or might be expected to raise. There are two distinct aims in striking such a relationship. The first is to compensate authorities with a below-standard "fiscal capacity", because their potential direct revenue is limited by the relative smallness of their tax base compared with some standard fiscal capability: such compensation would normally assume that they made a "standard fiscal effort", i.e., that their tax rates, the precision of their assessments and the effectiveness of their collections represented a standard effort to exploit their tax bases, however restricted they might be. The second possible aim for relating allocations to local taxation is to stimulate and reward local fiscal effort: some standard level of revenue exploitation can be established, with central-government transfers being increased when that standard is exceeded or reduced when it is not achieved. A current example is the municipal-grant system in West Bengal, where payments of capital-development grant are dependent upon achievement of resource targets in the preceding year.

Box 11

In the Calcutta Metropolitan Area of India, a comprehensive deficiency grant is awarded on the formula:

Recurrent expenditure - Internal revenue = Grant.

However, for the purpose of assessing grants, annual increases in recurrent expenditure are restricted to:

- (a) 5 per cent in salaries and wages;
- (b) 10 per cent in other expenditure;
- (c) Actual increases in debt -service costs arising from loans under the Metropolitan Development Plan.

Similarly, internal revenue is assumed, for calculation purposes, to include:

- (a) 5 per cent annual increase in collection efficiency until 75 per cent of property tax role demands are realized;
- (b) 5 per cent annual growth in all other revenues.

If the actual deficit exceeds that on which a grant has been assessed, an additional grant is payable but deducted from the capital development grant. This represents an attempt to combine general assistance with incentives for improvement in revenue generation and expenditure control.

38. The basic problem is to define and calculate local "fiscal capacity". If a grant is calculated purely on an authority's own estimate of revenue or its actual tax performance, the effect would be to penalize effort and reward laxity. Equity and incentive can only be achieved by using a national objective assessment of revenue potential.
39. Calculation of revenue potential is most accurate if related directly to the revenues which local authorities can exploit. Where they rely on charging, comparisons can be made of revenue collected per unit of service. A common set of taxes with uniform methods of assessment might afford a fair basis for calculating and comparing fiscal potential. Since all local authorities in England and Wales have a single tax base in property rating, uniformly assessed by central-government valuers, it is easy for the block rate-support grant to adjust revenue potential.

40. Where taxes or assessment methods vary, particularly at local discretion, it is difficult to relate an assessment of revenue potential to the actual sources exploited. In such cases, measurement might only be possible by some general comparison of local economies: per capita incomes are often used for this purpose, but this requires caution on two counts. First, the statistics might be based on the value of local production, which ignores transfers of income in and out of the area (such as "exports" of company profits or "imports" of wage remittances or dividends). Secondly, income figures might be heavily inflated by elements which are beyond the scope of local taxation; mining company profits, subject only to national royalties and corporation tax, might be a significant case in some areas. Proxy measures, such as local consumption of commodities, might be a satisfactory, if crude, indicator of relative taxable capacity.
41. Equalizing fiscal capacity normally assumes standard rates and a standard level of efficiency in assessment and collection of local taxes and charges. It can leave scope to authorities to adopt higher than average rates or to excel in enforcement, generating above-average revenue which can then be devoted to above-standard levels of expenditure. Provided that variable rates are feasible on economic and administrative grounds, it is usually desirable that equalization formulae leave discretion and incentive to local governments.
42. Occasionally, revenue equalization involves transfers between local authorities themselves. These can be used to reduce disparities between the core city and the periphery in metropolitan cities. In Tunisia, they take place between municipalities on a national basis.
43. What degree of revenue equalization can be attempted by central transfers? Should they seek to provide a modest compensation for low-revenue potential, by raising local revenues up to an average per capita level, or to standardize fiscal capacity, i.e., to bring the resources of all authorities up to or near the level of the richest? Part of the answer lies with the method of equalization. This can be through general grants or tax-sharing, with some weighting in favour of poor areas (whether these really equalize local resources depends upon the size of the weighted element in comparison with the disparity in direct revenue potential), or through an allocation which is specifically estimated to raise the potential of direct revenue sources. This may be a discrete grant or tax share for this special purpose or it might be the balancing element in a general-deficiency grant.
44. Just how far equalization should be taken depends upon several factors. The first is economics - the amount of resources which a country can afford to devote to equalization. This is a problem not only of national poverty or wealth but also of the degree of disparity to be bridged. Overemphasis on equalization might starve high-growth potential areas of necessary levels of investment. The second is a question of political priorities. How far can redistribution be achieved without overstraining the consent of the "surplus" regions? The third consideration is the ability of undeveloped areas to absorb public investment. The relative poverty of these regions might be reflected in low administrative capacity or resource endowment, which constrains attempts to accelerate public spending. Conversely, the high revenue yields of the rich areas might reflect additional needs for public expenditure. Urban industrialized regions might produce high taxes, but their population density and their production base also require high levels of infrastructure expenditure.
45. It must be remembered, moreover, that the pursuit of equalization, through central allocations to local authorities, only applies to local-government expenditure. Its effects can be largely negated if large amounts of public expenditure are channeled through central-government departments or national parastatal bodies, without concern for spatial distribution.

The timing of central-government transfers

46. The timing of transfers to local governments is important. Matching or percentage grants will normally depend on the local budget. Ideally, for comprehensive, multi-purpose allocations, the recipients should be notified before they prepare their budgets. This gives local authorities a clear forecast of their revenue and pins the responsibility for balancing the budget squarely on them.
47. Reference has been made to transfers calculated on the basis of an actual budget, not upon independent criteria. In effect, local authorities estimate their expenditure and their direct revenue on the assumption that the central government will bridge the resultant gap whatever its size. The central government then cuts the expenditure or induces revenue increases until the deficit is reduced to a scale it is able and willing to close. This is in general an unsatisfactory procedure. It leads to very subjective judgements by central government of what income is possible and what expenditure is - desirable; it can lead to programmes which do not reflect local needs or priorities; it effectively shifts the responsibility for hard choices in balancing a budget to the central government. It is best that

any -- comprehensive budget-closing grants should be based on national assessments of expenditure-needs and revenue potential which are independent of the actual shape of the local budget and decided before it is formulated.

E. Case examples

48. Three examples are given of transfers to municipalities in countries where transfers represent a large source of municipal revenue. They are given to illustrate the variety of approaches to assessing the scale of transfers and distributing them between receiving authorities.

49. In Brazil, *municípios* receive shares of federal and state revenues, consisting of:

- (a) 20 per cent of state value-added tax (15 per cent distributed according to derivation, 5 per cent by formula depending on population, area etc.);
- (b) 10 per cent of federal income and excise taxes (distributed largely according to population but weighted in favour of sparsely-populated municipalities);
- (c) 25 per cent of motor-vehicle tax (distributed by derivation);
- (d) 20 per cent of mining tax (distributed by derivation);
- (e) 8 per cent of fuels and lubricants tax (distributed 40 per cent according to population, 40 per cent according to consumption and 20 per cent according to land area);
- (f) 10 per cent of electricity taxes (distributed 60 per cent by population, 15 per cent by consumption, 20 per cent by land area and 5 per cent by production).

50. In Indonesia, municipalities receive 65 percent of the land and buildings tax (levied and assessed by central Government but largely collected by the municipalities) plus a variety of grants, including:

- (a) A grant, covering all the salaries and allowances of established civil servants (including teachers);
- (b) A per capita grant for infrastructural development;
- (c) An education grant, covering construction and repair of buildings (distributed according to plan targets and service deficiencies);
- (d) An education recurrent-cost grant (for miscellaneous school expenses);
- (e) A health grant, consisting of two elements: a per capita grant for drugs, and a contribution to the construction of new clinics etc. (distributed according to plan targets and service deficiencies);
- (f) A road-construction grant (assessed against project bids);
- (g) Highly-subsidized loans (interest-free) for market construction (distributed according to bids).

51. In the Calcutta metropolitan area of India, a comprehensive deficiency grant is awarded on the formula:

Recurrent expenditure - Internal revenue = Grant

However, for the purpose of assessing grant, annual increases in recurrent expenditure are restricted to:

- (a) 5 per cent in salaries and wages;
- (b) 10 per cent in other expenditure;
- (c) actual increases in debt-service costs arising from loans under the Metropolitan development plan.

Similarly internal revenue is assumed, for calculation purposes, to include:

- (a) A 5 per cent annual increase in collection efficiency until 75 per cent of property-tax demands are realized;

- (b) 5 per cent annual growth in all other revenues.

If the actual deficit exceeds that on which grant has been assessed, additional grant is payable but deducted from the capital-development grant.

52. These three cases illustrate a range of financing instruments including:
- (a) Revenue sharing;
 - (b) Specific/earmarked grants;
 - (c) Block grants;
 - (d) Formula deficit grants.

The Calcutta grant represents an attempt to combine general assistance with incentives for improvement in revenue generation and expenditure control. The earmarking of the Indonesia grants varies from highly specific control and planning, in the case of personnel costs and new construction of schools and clinics, to very broad limitations, on the use of infrastructural development grants. The distributive criteria for Brazil's revenue-sharing mark a balancing act between derivation and "need" criteria.

IX. DOMESTIC BORROWING

Trainers' notes

This chapter deals with loan finance. The opening section describes the purposes of borrowing and the considerable international variation in the extent to which this is practiced. The second section discusses the sources of loan finance. The third section analyses loan conditions -duration, interest rates, repayment methods etc. The fourth section examines the calculation of debt-service capacity. The fifth section looks at the role and range of institutions supplying credit to urban authorities. The concluding paragraphs discuss the rationale for borrowing and a criticism of it.

Since much of this chapter is descriptive, it does not lend itself easily to discussion. The main issues which will be worth debate are the methods used for calculating borrowing capacity and the general justification of loan finance. Participants should be asked to review their own experience of borrowing, and the basis for forecasting future capacity to repay debt (e.g., what assumptions would be needed to estimate capacity on the basis of the Jordan formula).

A. *The purpose and extent of borrowing*

1. Urban authorities borrow money for a variety of purposes:
 - (a) To finance short-term cash-flow deficits;
 - (b) To finance deficits in annual operating budgets;
 - (c) To purchase plant and equipment with a medium-term life;
 - (d) To finance investment which is expected to earn income;
 - (e) To pay for long-term capital development.
2. Borrowing to meet short-term cash flow deficits is common throughout the world, being necessitated usually by uneven patterns of revenue collection. Bank overdrafts are the normal form of such borrowing, but local authorities, sometimes, seek direct deposits from the public, through t. short-term bills - usually of one to three months' duration. The traffic is not entirely one-way, however; revenue fluctuations can also produce short-term surpluses which authorities can invest on the money market.
3. Deficit financing of annual current budgets is common for central governments but rarely encouraged or permitted in the case of local authorities. It does happen, however, by default, i.e., when local authorities fail to clear "short-term" overdrafts.
4. The purchase of plant and equipment poses problems, insofar as it involves "lumpy" expenditure - substantial outlays on replacement costs at irregular intervals. Borrowing for purchases spread over the estimated life of equipment is a common solution. A somewhat similar alternative is leasing from suppliers, a solution increasingly popular since it avoids purchasing equipment which might become obsolete in a time of rapid technological change.



5. The concept and practice of loan finance for "self- liquidating" investment is widely accepted. This is expenditure upon operations which earn a direct return on capital, covering both debt charges and operating costs. Urban authorities of the development or utility corporation type are frequently capitalized by loan finance which they are expected to invest in income-earning activities. The "lumpy" nature of their expenditure and their dependence on large but occasional and infrequent " capital outlays make them particularly reliant upon borrowing.
6. The use of loan finance for capital development of services or infrastructure, without a direct revenue return, varies widely. An International Union of Local Authorities' survey in 1969 showed that the percentage of local-government capital expenditure met by loans varied from 86 per cent in Canada and 80 per cent in Belgium to 16 per cent in Sweden and 19.5 per cent in Japan.

Sources and methods of borrowing

7. There are several common sources and methods of urban-authority borrowing:
 - (a) Loans from higher levels of government (these are normally from central government, but state or provincial governments might lend extensively to local authorities in a federal system);
 - (b) Loans from a central credit bank or loan fund for local authorities;
 - (c) Loans or overdrafts from commercial or public savings banks;
 - (d) Internal borrowing from reserve funds, such as superannuation funds for employees or renewal funds for plant and equipment;
 - (e) Hire-purchase or rental-leasing of equipment;
 - (f) Contractor finance for construction projects;
 - (g) Realization from interest-bearing bonds or stock, normally with fixed dates or redemption;
 - (h) Mortgages on an authority's physical assets;
 - (i) Loans from international agencies, such as the World Bank and the African, Asian, and Inter-American Development Banks, or bilateral-aid donors (usually made to central government and re-lent).
8. There are countries where provincial and local governments rely almost exclusively on borrowing direct from the money market. Local authorities in the United States of America, for example, raise loan finance mainly through bond issues; smaller authorities often join together to float a corporate loan through a bank or a broker. In contrast, there are countries where the weakness of capital markets or the lack of creditworthiness makes local authorities dependent on central , government or a central credit institution for loan finance. Central credit institutions can also be used by provincial and local governments as a convenient device for borrowing jointly on the capital markets. Their role will be discussed later in the chapter.

9. Internal borrowing is attractive, insofar as management expenses and commissions are avoided on both borrowing and investment. The danger is that interest rates credited to the reserve funds on the loan programme will fall below those available on the market. This would be contrary to the trustee obligations of the authority, particularly in the use of superannuation funds.

Loan conditions

10. The duration of urban authority loans might be anything from 24 hours to 60 years. For capital-investment purposes, authorities frequently seek to equate the duration of a loan to the "life of the project", where a capital asset has a predictable life-expectancy. Alternatively, the maturity is from the level of debt charges which can be recovered annually through taxes and charges. In many cases, authorities operate a consolidated loans fund which borrows comprehensively from the market for all loan-finance purposes and then "lends out" to individual projects on standard terms which average out the prevailing amortization of the debt.
11. Ultimately, the maturity of loans depends upon what the market will stand, and the interests of the lender are paramount. A governmental or international loan fund will often seek to "turn over" its lending as rapidly as possible - with 10-year loans, for example - in order to increase the volume of development it is financing. A private or institutional investor will be influenced chiefly by two considerations - the prevailing market rates on short-term, medium-term and long-term lending and the timing of any liabilities (such as life-insurance annuities or pensions) which will have to be met by the funds invested.
12. There are several methods of repaying loans. The annuity method involves equal installments, usually paid biannually through the life of the loan, combining repayment of capital and interest; the notional-interest element will be great in the early installments whereas the late installments will be largely discharging the capital debt. In another method, interest only is paid during the life of the loan, the capital being repaid in full at maturity - the normal system with bond issues. This might be accompanied by a sinking fund to which the borrowing authority pays regular installments, so that the capital to be repaid is accumulated over the life of the loan. Regrettably, history records many occasions when sinking funds have been raided to meet obligations which seem more pressing than the eventual redemption of a debt.
13. In between these methods are two "loading" methods, combining payments of interest and capital by installment. "Front-end loading" involves repaying equal installments of capital at regular intervals, together with the interest on the loan outstanding; the total installment decreases progressively as the interest payments decrease. By the "rear-end loading" method, installments of capital and interest increase progressively over the life of the loan, perhaps after an initial moratorium or grace period. Rear-end loading has two potential benefits: it can accentuate the effect of inflation in reducing the real burden of repayment and it can be helpful in providing a breathing space for a project to develop revenues to meet debt charges.
14. Interest rates on borrowings from the capital market will clearly be dictated by prevailing market conditions. Rates below prevailing market levels might appear in two situations. First, public loans are often floated at a discount, so that the potential yield includes both interest and the capital gain arising from the difference between purchase and redemption prices. Secondly, public-authority borrowing might carry some tax exemption which boosts its rate of return compared with fully taxed investments.
15. A government or international aid organization might consider charging rates of interest below market level. In such cases, a distinction is often made between "hard" loans on market terms and "soft" loans. "Softness" might consist of low or zero interest rates, a moratorium on repayment, an exceptional duration or some combination of these concessions. The repayment terms might depend on the project's revenue-producing potential or on the debt-servicing capacity of the jurisdiction to which the loan is made.

Borrowing capacity

16. How much can an urban authority afford to borrow? A decision, by an authority, to borrow or, by higher levels, to permit it to do so has to be based upon some assessment of its capacity to service debt. If the loan is "self-liquidating", i.e., for a direct income-earning investment, the concern would normally be only for the internal viability of the scheme and its potential rate of return. For projects which are not directly revenue-earning, capacity to borrow is often judged by some ratio of loan to the volume of outstanding debt or the volume of debt to annual revenues, for example German Lander and state governments in the United States of America limit local-authority borrowing, by setting a maximum percentage of current revenues devoted to debt servicing (being a

common ceiling in Germany). Borrowing by the largest Indian municipal corporations is limited to a fixed percentage of their property tax base, i.e., the total assessed value of property subject to the tax.

17. If increasing debt charges have essentially to be met from ordinary current revenue, difficult judgements are clearly involved. It is often assumed that expenditure on infrastructure, such as water supply, on agricultural development or, even, on public health will lead to an expansion in the economy which will automatically increase current revenues and finance the debt. These are seductive arguments but they are open to question on three counts. Does the particular investment financed by a loan actually lead to economic growth? How long does it take for such effects to materialize? Does such economic growth increase the specific revenues which the borrowing authority does or can exploit? A road scheme, for example, might result immediately in new building, which increases the property tax base. An increase in industrial production might only be reflected in rising yields of indirect taxes; these might not benefit local-authority revenues, if they are paid to central government.
18. The only real indication of capacity to borrow is projection of recent trends in current revenue and estimation of the potential of any fiscal changes which have already been determined, e.g., a new tax, a reassessment or a tax transfer. Lending by the Jordan Cities and Villages Development Bank is being tied to projections of the gap between revenue and recurrent-expenditure commitments. The basis of this projection is given in the annex to this chapter.
19. In some cases, however, the purposes of borrowing are built into expenditure plans which have been, approved by central government as part of a comprehensive system of central/local financial relationships. This means that the annual debt charges will be accepted as part of the expenditure qualifying for overall grant support. The deficit-grant formula for West Bengal municipalities includes provision for debt-servicing arising from the Calcutta Urban Development Programme.

Central credit institutions for urban agencies.

20. Central institutions, specifically providing loan finance for urban authorities, deserve special mention, because of their number and distribution - a United Nations survey listed 33 such institutions in four continents in 1972 - and their actual or potential importance. The central function of providing a source of long-term or medium-term credit to provincial or local governments is common to all these institutions. Their organizational form varies, however, with some operating as banks, and others as loan boards, trusts or co-operative societies. The former might provide the full range of banking services to local government. Their control and management also vary. Some institutions, such as the British Public Works Loans Board, the Kenyan Local Authorities Loans Fund or the Japanese Finance Corporation for Local Public Enterprises, are constituted and supervised directly by the central government. Some have been instituted and subscribed directly by the local authorities, themselves - the Municipal Credit Bank of Belgium offering an example. Others are jointly owned and controlled by central and local governments. The Bank of Netherlands Municipalities is an incorporated company, with its capital subscribed by central and local governments. Fundacomun, the Venezuelan Foundation for Community and Development, was created by the central government, but municipalities were invited to contribute share capital and to be represented in management. Occasionally, as with the French Credit Foncier, share capital can also be attracted from private investors.

Box 12

The Cities and Villages Development Bank (CVDB) in Jordan provides investment finance and technical assistance to municipal and village councils. Share capital has been subscribed by the Government, the Central Bank and the local councils themselves. Equity and internally-generated reserves make up nearly half its funds; the remainder comes from municipal deposits, and loans from the Central and World Banks. The CVDB's loans have financed a wide range of local infrastructure including paved roads, water supplies, sewerage, electrification, schools and clinics with the accompanying land acquisition. During its first five years from 1980 it financed over 1,650 projects, nearly half of them in village council areas, during a period of rapid economic growth and urbanization in Jordan. Its lending is combined with considerable technical assistance and training.

21. Share capital - whether from central or local government - is important in determining control of the institution and in guaranteeing the funds invested in it by the capital market, but it is rarely a source of the funds lent by these institutions. These are obtained from a variety of sources, with six being important.
22. The first category is capital obtained from central government. It takes several forms, including grants, loans, share capital and initial capitalization. In Colombia, the proceeds of a tax on distilled spirits accrue to the fund, and

some Canadian provinces contribute the national health-insurance premia. Government social-security agencies in France are required to deposit reserves in the French Caisse des Dépôt et de Gestion are used for loans to municipalities and local water, power and transport undertakings, through the Fonds d'Équipement Communal.

Box 13

In 1981, the Parana State Government in Brazil established a Municipal Development Fund. Its objective was to rationalize the flow of development grants to municipalities, which had previously been distributed in an ad hoc and arbitrary manner with little local choice over the resulting expenditure. Subsequently the Fund was enlarged by a World Bank loan and now disburses a combination of grants and loans. The dominant and novel features of the Fund (so far as Parana State was concerned) have been distribution of drawing rights by formula rather than patronage, and the right of the municipalities themselves to select, design and execute the investments thus financed. Eligibility was restricted to the 281 municipalities with populations below 50,000, since stemming migration to large cities was one of the Fund's original objectives. The devaluation of the Brazilian currency has made it impossible to sustain the original ratio of the World Bank-funded loans to the state-government grant, but this has not deterred a larger than expected number of municipalities from borrowing from the Fund, and 500 projects have been financed at an average of \$US 100,000 each. Municipalities have particularly valued the greater autonomy provided by the Fund's method of operation.

23. The second source of funds is local government itself. Contributions come from initial share capital or the deposit of reserves and pension funds. Several countries have required local authorities to deposit in the fund the proceeds of a particular tax (such as the alcoholic beverages tax in Guatemala) or a fixed percentage of total revenue, as in Thailand and Turkey.
24. A third source is the capital market, tapped through share capital, deposits, bond and debenture issues or (as in India) the premia on nationalized insurance or reinsurance.
25. A fourth source is a personal savings bank. The most notable example is provided by the communal savings banks in Germany which deposit their surplus balances in banks at state level. Egyptian municipal savings banks have operated with similar success but on a modest scale.
26. Operating profits are another source of capital, where loan funds "revolve", the initial capital being increased by interest charges after paying administrative costs. The local authorities' loan funds in East Africa have accumulated capital in this manner since initial appropriations from the central government have not been subject to repayment or interest charges.
27. Lastly, international agencies such as the World Bank or bilateral donors, occasionally provide assistance to local development through such funds.
28. Some national institutions provide finance to both local authorities and other agencies for programmes within a specific sector. They might cater extensively, but not exclusively, to the needs of local government for capital. Prominent examples include the National Housing Bank in Brazil and the Housing and Urban Development Corporation of India which have provided loan capital for municipal investments in housing and related urban infrastructure.
29. Central credit institutions have several strong advantages as sources of loan finance for urban authorities. Most countries, at whatever stage of development, have a substantial capital market, consisting of private and institutional investors, such as pension funds, trusts and insurance societies, which are looking for secure outlets for investment, with guaranteed rates of return and fixed redemptions. A central credit institution has flexibility in timing its borrowing according to fluctuating market conditions and can concentrate expertise in playing the capital markets, so as to spread and reduce the administrative overheads of borrowing.
30. In some cases, these institutions provide not only loan finance but also technical assistance with the design and execution of development projects. The Housing and Urban Development Corporation of India accompanies its loans with model building designs and specifications, based on experience and research.

B. Conclusion

31. Borrowing is not a direct charge upon the taxpayer and is not susceptible to appraisal by the same criteria as taxes and charges, but how far public authorities should borrow is a highly controversial issue. There are several arguments in favour of loan finance. Borrowing accelerates development, since it frees investment from the limits of current revenue: to depend solely upon the excess of tax and operating revenues over operating expenses would

often severely curtail or eliminate long-term development by urban government. The additional investment through borrowing might generate extra current revenue directly or indirectly. Although borrowing normally involves interest charges as well as capital repayment, the burden of these is often eroded by inflation; indeed, if the rate of inflation exceeds the interest rate, it is cheapest, in real terms, to borrow money. The real burden of interest charges might also be discounted by the accelerated benefits of the project financed by loan.

32. Extensive borrowing by public authorities is criticized, however, on a number of counts. Taxpayers are not faced immediately with the full cost of loan-financed projects; this can weaken financial discipline and accountability. Low-priority or extravagant proposals might not get the hard scrutiny they would receive, if they involved raising taxes or economizing on other expenditure. Excessive borrowing, particularly at high interest rates, can build up a heavy burden of debt-servicing; irresponsible leaders can win cheap popularity or benefits for their supporters by indulging in investment which exceeds any reasonable expectation of increases in revenue.
33. There has been growing concern, in some countries, about the contribution of public-sector borrowing to inflation, where much of this borrowing has been financed by the central bank. It is also argued that the security, the guaranteed interest rates and the fixed redemptions attached to public borrowing attract investment, particularly from institutional sources, such as pension funds and insurance companies, which would, otherwise, have to seek outlets in commercial and industrial enterprise: in this way, the productive base of the economy is weakened. Any financial saving to the present generation of taxpayers by passing on capital costs to the future might be more than offset by the economic burden of inflation and the starvation of commercial and industrial investment arising from excessive public-sector borrowing.
34. To state the arguments is not to attempt a resolution: this is only possible case by case. Some systems of urban government borrow too much; others could borrow more than they do. What matters is the general scale of borrowing and the care with which individual loan projects are appraised. Insofar as it controls the scale of local-government borrowing or access to loans, national government can use borrowing as an instrument for the achievement of national plans and goals.

Annex

Until 1985, the Cities and Villages Development Bank of Jordan calculated municipal borrowing-capacity on the basis that debt service should not exceed 80 per cent of each authority's allocation from a national revenue-sharing pool. This was not a realistic guide, however, since the national revenue allocation varied considerably as a proportion of municipal revenue. For those municipalities heavily dependent on the allocation, 80 percent was far too high a percentage to commit to debt service; but, conversely, authorities with substantial other revenue sources could afford a larger volume of borrowing.

In 1985, the Bank introduced a projection of resources available to meet new debt. This was calculated, in the case of each municipality, on the basis of:

	Recurrent revenues (including taxes, charges and revenue-sharing allocations) projected according to current trends
Minus	Recurrent expenditure (projected according to current trends)
Minus	Existing debt service (projected according to repayment schedules)
Minus	Outstanding commitments on revenue-funded capital investments.

EQUALS	Resources available for new debt-service.

To provide a safety margin, new debt-service was then restricted to 75 per cent of the projected resources available.

X. CASE STUDIES

A: DAGPUR MUNICIPAL COUNCIL: Stage II: Revenue Estimation

Timing: Mid-1989

Trainers' notes

This stage of the case study is intended to illustrate several issues and practices related to municipal finance. These include:

- (a) The need to review the rates of property tax, particularly when introducing revised assessments. It may be necessary to reduce tax rates after a revaluation to avoid drastic and politically-sensitive increases in individual liabilities; it is equally advisable to plan for regular increases in tax rates between revaluations to maintain the real value of the revenue. Setting a rate involves political judgement of the percentage increase in the tax liability which can be acceptable to the payers; this can only be judged by looking at rates and valuations together.
- (b) The need for regular review of rents and charges to maintain their real value. This involves judgement of the mix of public and private benefit in the provision of a service, and the extent to which charges should meet costs.
- (c) The process of forecasting revenue over the medium term as a basis for planning progressive improvements in service provision.
- (d) The relationship between revenue and expenditure in the case of a grant-aided service (in this case education), and the need to take account of conflicts between central and local criteria in estimating service needs.

The current position

1. Stage I of the case study (see chapter II) reviewed the financial position of Dagpur MC at the beginning of 1989 and identified major financial problems which had to be tackled and reforms which would be needed.
2. As a result of the review there have been detailed negotiations between the Central Government and DMC in which potential donors have also been involved. As a result, agreement has been reached on the following package of measures designed over a three-year period from 1990 to 1992, to restore the financial soundness of DMC and to enable it to tackle major service deficiencies in the Municipal, particularly in the areas of road maintenance and refuse collection.
 - (a) Government has agreed that DMC should continue to levy the Motor Vehicle Tax and will revise the rates of tax each year in line with inflation.
 - (b) A reassessment of property tax values has been carried out; the new assessment values will be brought into effect in 1990 but with some compensatory reduction in the rate of tax; tax rates will, however, be adjusted annually thereafter, to maintain the real value of the tax until further revaluation (the implications are set out in appendix A);
 - (c) Collection procedures for property tax and development levy will be tightened up with the introduction of an automatic computerized system of recording payments and taking action against defaulters. DMC has accepted a target of improving collection efficiency of property tax by 3 per cent per annum.



- (d) DMC has agreed to recover the cost of some (unspecified) services directly from the beneficiaries. For this purpose:
 - (i) Rents and charges are to be credited directly to the Department providing the service in question in the 1990 budget, so that the net cost to general services is clearly shown;
 - (ii) The rates of rents and charges are to be reviewed (see appendix B);
- (d) The formulae for recurrent and capital grants for the primary-education service have been 1 revised with effect from 1990, (details are given in appendix C);
- (e) It has been agreed that the Municipal Development Bank will make Rs 10 million available for DMC capital projects or equipment purchases in each of the years 1990, 1991 and 1992, subject to preparation of an acceptable capital programme. These loans will be repayable over a maximum of 15 years by equal installments of capital and interest at 10 per cent per annum.
- (f) DMC has agreed to hold down spending on administrative overheads and to give priority to increased expenditure on refuse collection and road improvement and maintenance. The Municipal Development Bank allocation may be used partly for purchase of new road plant and refuse vehicles, but DMC is to create provision for a renewals fund within its recurrent budget;
- (g) DMC will attempt to increase the annual revenue surplus available for capital expenditure, by improved revenue mobilization and restraint on recurrent spending outside the priority areas;
- (h) DMC will take responsibility for slum-improvement programmes from 1990. Current plans are to improve 250 acres over the next five years at an average capital cost of Rs 40,000 per acre;
- (i) DMC agrees to bring the housing account back into credit by 1992 by phased rent increases.

Assignment

3. To comply with these arrangements DMC now has to submit forecasts of revenue and expenditure over the three-year period 1990-1992. These will show, in particular, how it proposes:
 - (a) To improve its recurrent revenue performance;
 - (b) To eliminate existing short-term debt;
 - (c) To service increased borrowing from the Municipal Development Bank; and
 - (d) To finance continuing growth of the primary-education service (in line with national targets) and improvements (operating or capital) in roads and refuse collection.

At this stage readers are asked to produce the revenue forecasts (expenditure forecasts will be made at Stage III in chapter 12);

4. They will need to produce the following statements in respect of the period 1990-1992:
 - (a) Estimates of revenue from property tax, with proposals for tax rates (appendix A);
 - (b) Estimates of revenue from rents and charges, with proposals for tariffs (appendix B);

- (c) Estimates of revenue and expenditure on education (see appendix C);
 - (d) Estimates of revenue from Development Levy (see chapter II, paragraph 20(b));
 - (e) Overall projections of recurrent and capital revenue under each head (performance for 1984-1988 is given in appendix D, together with revised estimates for 1989);
 - (f) Proposals for phased rent increases on DMC rental housing estates (based on data given in chapter II, appendix D).
5. The retail price index at 1 January 1989 stood at 149 (January 1984 = 100), and the rate of inflation, during 1989, is estimated to have fallen to 3 per cent. Allowance for inflation should be made in the 1990 projections, but forecasts for 1991 and 1992 should be made at constant (1990) prices.

Appendix A

Property Tax

1. Revenue from Property Tax for the period 1984-1989 has been as follows:
2. During 1989, a revaluation has been carried out. There has been, on average, a 320 per cent growth in values since the last general assessment in 1974. As a result, the revised total assessed value is Rs.1500 million as at mid-1989.

(millions of rupees)						
	1984	1985	1986	1987	1988	1989
Total assessed property value	403.2	414.1	428.1	440.1	454.0	468.7
Rate of tax (percentage)	17.5	17.5	17.5	17.5	17.5	17.5
Total tax demand	70.6	72.5	74.9	77.0	79.4	82.0
Actual collections:						
Current year	54.3	56.5	56.9	57.0	58.0	In progress
Arrears	2.3	3.5	4.4	6.0	5.3	In progress
Total revenue	56.6	60.0	61.3	63.0	63.3	

3. It has been agreed that the new 1989 valuation roll should be used for assessing property-tax liabilities in 1990. At the same time, however, tax rates will be reduced, to cushion the impact of the increased valuations on taxpayers. It has also been agreed that modest increases in tax rates should be made in succeeding years (i.e., 1991 onwards) to maintain the real value of the tax until the next general revaluation is undertaken.
4. It has also been agreed that DMC should aim to improve its collection efficiency by at least 3 per cent per annum. For this purpose, a computerized system of records has been introduced. Automatic penalties have also been doubled for all payments more than six months in arrears.

Assignment

5. High and low forecasts of property-tax income over the years 1990-1992 should now be prepared, with varying assumptions on:
 - (a) Growth of the property-tax base;
 - (b) Rates of tax fixed for each year;
 - (c) Collection efficiency.

(These assumptions need to be specified.)

Appendix B

Rents and charges

- Revenue from rents and charges in 1988 (excluding those accruing to the Housing Fund) totaled Rs.7 million, arising from the following sources:

	Rs.
Rents of shops and market stalls	2,870,000
Abattoir fees	490,000
Commercial refuse-collection fees	960,000
Car-parking fees	1,300,000
Sports centre entrance fees	750,000
Zoological garden entrance fees	200,000
Community centre hire charges	150,000
Staff housing rents	280,000
	7,000,000

Details of individual charges are given below.

Rents of shops and market stalls

- DMC owns and rents blocks of shops and markets. It divides its tariff into two grades, according to location:

Grade I: Central business district and high-income residential suburbs;
Grade II: Other areas.

Its current (1989) tariff is as follows:

Grade		Number of properties	Size (sq. m)	Annual rent (Rs per sq. m)	Total per property (Rs)
Shops	I	8	40	2000	80000
	I	15	20	1800	36000
	II	16	20	1600	32000
	II	40	10	1400	14000
Market	I	50	6	800	4800
Stalls	II	140	6	600	3600

Actual revenue in 1988 was Rs 2,870,000, which included notional shortfalls of Rs 126,000 due to temporary vacancies and arrears.

The rents were last revised in 1984. Current private-sector commercial rents are in the range:

Grade I areas: Rs. 2000-5000 per square metre;

Grade II areas: Rs. 1000-2400 per square metre;

(depending on exact location and standards of construction etc.).

Shops and markets are administered by the Markets Division of the Finance Department. Established costs of the Division in 1989 are:

	Rs.
Salaries and wages	400,000
Maintenance	330,000
Debt charges	1,530,000
Total	2,300,000

Abattoir fees

- The Public Health Department provides the abattoir buildings and inspection, although slaughtering is carried out by commercial butchers who use the facilities. Fees are charged for use of the premises and inspection as follows:

Rs. 10 per cow
Rs. 5 per sheep or goat

Revenue in 1988 totaled Rs 490,000. The Department's costs in operating the abattoirs are estimated in 1989 as:

	Rs
Salaries and wages	170,000
Maintenance	180,000
Debt charges	200,000
Total	550,000

Commercial refuse-collection fees

4. The current fee for removal of refuse from industrial and commercial premises is Rs.4 per cwt., set in 1986. Revenue in 1988 was Rs. 960,000. Approximately 25 per cent of the total refuse collected comes from industrial and commercial premises (total refuse collected is approximately 150 tons daily). The total recurrent cost of the service is estimated at Rs. 19 million in 1989.

Car-parking fees

5. DMC collects fees from streetside parking meters, installed in 1972 (other car parks are provided by the private sector); the fee is Rs 2 per two hours. Revenue in 1988 was Rs 1.3 million. Collection costs in 1989 are estimated at:

	Rs.
Salaries and wages	130,000
Maintenance	35,000
Total	165,000

Sport centre entrance fees

6. Current entrance charges (last revised in 1982) are:

Annual subscription: Rs 200 (entitling free entrance)

Daily entrance: Swimming pools:

Adult	Rs. 4
Children	Rs. 2

Other sports:

Adult	Rs. 8
Children	Rs. 4

(Other sports include tennis, squash, badminton, volley-ball and basketball.)

Total revenue in 1988 was Rs. 750,000. Operating costs of the sports centres are estimated in 1989 as:

	Rs.
Salaries and wages	970,000
Maintenance	900,000
Debt service	1,130,000
Total	3,000,000

Zoological garden entrance fees

7. Entrance fees (last revised in 1984) are currently Rs 4 per adult and Rs 2 per child. Revenue in 1988 was Rs. 200,000. Operating costs are estimated in 1989 as:

	Rs.
Salaries and wages	370,000
Maintenance	290,000
Total	660,000

Community centre hire charges

8. Charges are levied for hiring community centres for private functions (e.g., weddings). The fee, last revised in 1985, is Rs 80 per hour. Revenue in 1988 was Rs 150,000. The total cost of operating community centres in 1989 is estimated at Rs 800,000.

Staff housing rents

9. DMC provides 150 houses for its employees. Rents are charged at 5 per cent of salary. Total revenue in 1988 was Rs 280,000. Costs of operating the staff housing estates are estimated in 1989 at:
- 10.

	Rs.
Salaries and wages	200,000
Maintenance	330,000
Debt service	800,000
Total	1,330,000

Assignment

10. Rents and fees should now be reviewed, with a view to introducing any proposed increases in 1990. Recommendations should include:
- (a) Any proposed increases in tariffs;
 - (b) Reasons for proposing increases (or not proposing increases) in the case of each rent or charge;
 - (c) An estimate of increased revenue to be derived from any changes in tariffs.

Appendix C

Education finance

1. As stated in stage I, Dagpur Municipal Council is responsible for providing primary education. The government, however, provides grant aid which is supposed to meet 50 per cent of recurrent costs and 66 per cent of capital expenditure.
2. In fact, governmental grants have declined as a proportion of DMC expenditure on education, as shown in the following figures:

(millions of rupees)						
	1984	1985	1986	1987	1988	1989 (revised estimate)
Recurrent expenditure	25	33	41	48	56	66
Governmental contribution	10	12	17	19	21	23
Capital expenditure	10	17	20	20	23	27
Governmental contribution	4	5	9	7	7	8

The reasons for this decline will be explained in the following paragraphs.

3. In 1984, the government's recurrent grant was based upon 50 per cent of the following costs:
- (a) Salaries for 1450 teachers, at an average of Rs 12,600 per annum (the number of teachers was based on an enrolment of 58,000 pupils and a teacher/pupil ratio of 1:40);
 - (b) Non-salary costs, calculated at Rs 40 per pupil.

The actual number of teachers and enrolments corresponded with the Government's grant basis. DMC expenditure exceeded the grant-aided total, however, because:

- (a) DMC also employed 670 ancillary staff (caretakers, cleaners etc.), at an average wage of Rs 4200 per annum, for which no grant aid was given;
 - (b) Non-salary/wage costs averaged Rs 58 per pupil.
- 4.(a) In 1984, it was estimated that 85 per cent of the children of primary-school age were enrolled. The government launched an ambitious five-year programme to provide primary-school places for 95 per cent

of the age group by 1989. Allowing for Dagpur's 5.2 per cent annual age-group growth, the government estimated enrolments in Dagpur at 83,700 pupils.

- (b) During the 1984-1989 period, the government also allowed a reduction in the teacher/pupil ratio to 1:37.5. While class sizes have been maintained at 40, this is meant to allow employment of supernumerary headmasters in large schools or part-time specialist teaching.
- (c) By 1989, teacher salaries have risen on average to Rs 18,780.
- (d) The recurrent grant in 1989 is, therefore, calculated on 50 per cent of:

83,700
2235 teachers, i.e., ----- at Rs 18,780: Rs. 42 million
37.5

Non-salary costs of 83,700 pupils at Rs 40 per capita: Rs. 3.3 million
Total 45.3 million

5. While DMC is receiving a recurrent grant based on 50 per cent of Rs 45.3 million, its actual recurrent expenditure has risen to Rs 66 million in 1988 for the following reasons:

- (a) Actual enrolments have risen to 96,000. This, DMC argues, is because substantial numbers of children attend Dagpur schools while living in areas outside the city boundaries (while governmental projections are based upon the Municipal's resident population);
- (b) DMC decided to reduce its teacher: pupil ratio to 1:35;
- (c) DMC continues to employ ancillary staff for whom no grant is received. There are now 1340 such staff at an average of Rs 6,260 per annum;
- (d) Non-salary/wage costs have risen to an average of Rs 69.40 per pupil.

The actual breakdown of expenditure in 1989 is, therefore:

Rs.
96,000 -----
2,750 teachers, i.e., ----- at Rs 18,780 = 51.6 million
35

1,340 ancillary staff at Rs 6,260 per annum = 8.4 million

Non-salary/wage costs (96,000 x Rs 69.4) = 6.6 million

Total 66.6 million

- 6. (a) The government's capital grant of Rs 8 million in 1989 is based upon accommodation for 170 extra classes (6800 additional pupils at 40 per class) at Rs 44,000 per class (two thirds of the estimated cost of Rs 66,000 per class);
- (b) DMC actual expenditure of Rs. 27 million in 1989 is based upon accommodation for 250 extra classes (9600 additional pupils at 40 per class) at Rs 14,000 per class;
- (c) DMC argues (as over the recurrent grant) that the additional enrolments are due to children coming to Municipal schools from outside the boundaries. It also argues that its unit cost of Rs 114,000 per class is much higher than the national average of Rs 66,000 because of the high construction standards and the high land-purchase costs associated with a large Municipal location.

7. As part of the 1989 review of DMC's financial position, the government has accepted some changes in the funding of primary education to take effect in the 1990 financial year. These are as follows:
- (a) The 1989 enrolment of 96,000 pupils will be accepted as the base figure for calculating school population for grant purposes;
 - (b) Increases in school population from 1990 to 1994 inclusive will be estimated on:
 - (i) Annual population increases (the current rate of increase in the school-age population in the Dagpur region is estimated at 5.1 per cent per annum);
 - (ii) A national target to increase the number of school places from 95 per cent of the primary-school-age population in 1989 to 100 per cent in 1994;
 - (c) Non-salary/wage costs will be estimated at Rs. 60 per pupil for grant purposes.
 - (d) Capital costs will be estimated at Rs. 90,000 for each additional class.

The government will continue to meet 50 per cent of recurrent and 66 per cent of capital costs, based upon the projected enrolments and unit costs. It has refused, however, to include the cost of ancillary staff in its grant or to accept DMC's teacher:pupil ratio for grant purposes.

Assignment

8. It is now necessary to forecast DMC's recurrent and capital expenditure and its education recurrent and capital grant revenue for the three years 1990-1992. This should be done at constant 1990 prices (assuming 3 per cent inflation in 1989).

Appendix D

Financial operations of DMC

Table I. DMC total revenue and expenditure 1984-1989 (millions of rupees)												
Item	1984		1985		1986		1987		1988		1989	
	Approved	Actual	Approved	Actual	Approved	Actual	App.	Act.	App.	Act.	App.	Act. estimates
Revenue:												
Recurrent revenue	137	123	156	140	185	162	209	181	229	196	250	217
Capital receipts	10	7	10	10	18	13	12	11	16	14	17	15
Total	147	130	166	150	203	175	221	192	245	210	267	232
Expenditure:												
Recurrent	96	93	120	116	150	133	171	157	197	176	210	195
Capital	51	43	46	44	53	51	50	43	48	41	57	42
Total	147	136	166	160	203	184	221	200	245	217	267	237

Table II. DMC: revenue 1984-1989 (millions of rupees)						
	1984	1985	1986	1987	1988	1989
Recurrent revenues:						Revised Estimates
Property tax	56.5	60	61.0	63	63.5	64
Development levy	25.0	31	39.0	48	60.0	75
Entertainment tax	12.0	13	18.0	19	20.0	22
License fees	8.0	9	12.0	16	16.5	18
Rent and charges	4.5	6	5.5	6	7.0	7
Interest	3.0	4	4.0	4	3.0	3
Education grants	10.0	12	17.0	19	21.0	23
Miscellaneous	4.0	5	5.5	6	5.0	5
Sub-total	123.0	140	162.0	181	196.0	217
Capital receipts:						
Loans	2	4	3	2	5	5

Grants	4	5	9	7	7	8
Sales of capital assets	1	1	1	2	2	2
Sub-total	7	10	13	11	14	15
Total revenues	130	150	175	192	210	232

Table III. DMC: expenditure 1984-1989 (millions of rupees)						
	1984	1985	1986	1987	1988	1989
Recurrent expenditure:						Revised Estimates
General administration	3.5	5.0	6	8.5	12	13.0
Financial administration	3.0	3.5		4.5	5	5.5
Education	25.0	33.0	41	48	56	66.5
Public health	16.0	21.5	25	31	37	41.0
Solid-waste management	13.0	16.0	17	18	18	19.0
Roads and lighting	22.0	26.0	28	32	32	33.0
Fire	3.0	3.0	3	4	5	5.0
Libraries	2.0	2.0	2	3	3	3.0
Recreation	4.0	4.0	5	6	6	7.0
Social, welfare, admin. & miscellaneous services	1.5	2.0	2	2	2	2.0
Sub-total	93.0	116.0	133	157	176	195.0
Capital expenditure:						
Education	10	17	20	20	23	27
Public health	12	12	10	10	8	7
Solid-waste management	4	2	1	1	-	-
Roads and lighting	9	10	13	6	6	4
Fire	3	1	1	-	1	1
Libraries	1	-	1	1	-	-
Recreation	2	1	2	2	2	2
Social, welfare, admin. & miscellaneous services	2	1	3	3	1	1
Sub-total	43	44	51	43	41	42
Total	136	160	184	200	217	237

B. DAGPUR'S WATER SUPPLY

- Dagpur's water supply is inadequate for the growth of industry and population. The existing supply is a lake some 50 miles inland on the far side of the coastal hill range. Further supplies can be obtained from this source but only with additional pipes, pumping equipment, treatment plant etc. The Municipal Council has asked the central government to negotiate an international loan for this purpose. You are part of a central-government team appraising the application. To gain some impression of Dagpur's position, you have decided to compare its performance with that of Gulshan, which is generally regarded as one of the most efficient water authorities in the country.
- Attached tables I-IV are comparative financial statements for the Gulshan and Dagpur Water and Sewerage Departments. Gulshan's financial indicators for 1988 (calculated from tables I, II, III) were as follows:

	Percentage
Quick current ratio	2.8
Collection efficiency	80.0
Debt-service coverage	12.0
Working ratio	36.0
Rate of return	10.5

Your team leader has asked you to:

- Calculate the financial indicators in respect of the Dagpur Water and Sewerage Department:
- Compare Dagpur's financial performance with that of Gulshan:

- (c) Suggest what steps might be necessary and in what order of priority to improve the Dagpur Department's position as a condition of additional loan capital.

Table I. Balance Sheets at 31 December 1988		
	Gulshan WSSD	Dagpur W and SD
Assets:		
Current assets:		
Cash	369.90	57.73
Short-term investment	656.00	-
Inventories	179.40	79.73
Accounts receivable:		
(a) Consumers	293.70	130.53
(b) Others	193.20	85.86
Other current assets	287.34	127.70
Total	1979.54	481.55
Fixed Assets:		
Book value	3157.62	1296.72
Less depreciation	1026.42	1013.40
Net value	2131.20	283.32
Capital work in progress	855.60	380.00
Total	2986.80	663.32
Total assets	4966.34	1144.87
Liabilities:		
Current liabilities:		
Accounts payable	351.96	263.10
Deposits	177.42	78.85
Accrued interest	13.00	5.79
Misc. accrued liabilities	103.38	45.95
Total	645.76	393.69
Long-term debt	863.32	461.11
Total liabilities	1509.08	854.80
Equity:		
Government grant	497.94	221.30
Revaluation surplus	475.38	-
Operational surplus	1498.20	68.77
Equipment renewals funds	933.30	-
Misc. surplus funds	52.44	-
Total equity	3457.26	290.07
Total liabilities and equity	4966.34	1144.87

Table II. Statement of revenue and expenditure 1988 (Rs. million)		
	Gulshan WSSD	Dagpur WSB
Revenue	624.52	160.13
Operating expenditure:	226.64	153.40
Net (operating) income	397.88	6.73
Depreciation	85.14	37.85
Net income after depreciation	312.74	(31.12)
Debt service	33.67	32.06
Net surplus/deficit transferred to reserves	279.63	(63.18)

Table III. Billing and collections (Rs. million)				
	Gulshan WSSD		Dagpur WSB	
	Billings	Collections	Billings	Collections
1985	492.17	354.36	166.53	111.57
1986	505.65	369.12	176.10	119.75
1987	656.15	511.80	233.40	147.05
1988	780.65	624.52	250.20	160.12

Table IV. Summary of operating expenditure 1988 (Rs. million)		
	Gulshan WSSD	Dagpur WSB
Employee costs	90.65	36.80
Chemicals	11.35	4.60
Repairs and maintenance	31.75	13.80
Electricity	77.02	92.10
Miscellaneous	15.87	6.10
Total	226.64	153.40

Table V. Water and Sewerage Tariffs, 1989				
	Gulshan		Dagpur	
	Tariff	Percentage of yield	Tariff	Percentage of yield
<i>Water</i>				
Metered charges	Rs. 6/10,000 litres	14	Rs. 4/10,000 litres	18
Industrial and commercial	Rs. 40-120/10,000 litres	42	Rs. 30-90/10,000 litres	35
Metered bulk supplies	Rs. 100/10,000 litres	3	Rs. 80/10,000 litres	2
Non-metered charges:				
Water benefit tax	6 per cent of RV	15	5 per cent of RV	25
	Total	74		80
<i>Sewerage</i>				
Metered charges:				
Domestic	50 per cent of water	4	50 per cent of water charges	3
Industrial and commercial	50 per cent of water	12	50 per cent of water charges	7
Non-metered charges:				
Sewerage benefit tax	4 per cent of RV	10	4 per cent of RV	10
	Total	26		20

PART THREE: BUDGETING

XI. BUDGET FUNCTIONS AND FORMATS

Trainers' notes for chapters XI-XIV

These four chapters deal with budgeting. They are self-explanatory. Each is likely to merit one course session. How far a session is devoted to working through the process described in the chapter, and how far to participant experience, will depend upon the seniority of the course members and their familiarity with budgeting.

Points worth drawing out are:

- (a) Chapter XI: the potential of workload measurement (paragraph 9);
- (b) Chapter XI: the desirability of formats which compare the costs and revenues of services subject with user charging (paragraphs 15- 18);
- (c) Chapter XII: the importance of realistic revenue estimation;

- (d) Chapter XIII: the advantages of unit costing in comparing service efficiencies (paragraphs 7-8) and in planning the medium-term expenditure needs of individual services subject to serious deficiencies or major expansions in demand (paragraphs 13-16).

The process described in these chapters is illustrated by the case studies in chapter XV; e.g., refuse-collection and road-maintenance exercises (stage III) illustrate medium-term expenditure planning using service standards and unit costs. The timetable should provide for use of these case studies after the teaching sessions on budget formulation.

Role of the budget

1. The annual budget occupies the central place in the management process of virtually all systems of local government. The budget has several roles:
 - (a) It is a plan for keeping the local authorities solvent, for ensuring that expenditure is covered by:
 - (i) Existing reserves;
 - (ii) Revenue which can be realistically expected;
 - (iii) Loans which can be obtained and repaid;
 - (b) It establishes priorities for the authority's services;
 - (c) It allocates resources among the different activities of the local authority and determines the levels and directions of work to be undertaken during the budgetary period;
 - (d) It determines, insofar as the law provides any discretion, levels of taxes, fees and charges to be collected by the local authority during the forthcoming year;
 - (e) It provides the legal authorization for expenditure during the budgetary period;
 - (f) It provides comprehensive information on the financial position and plans of the authority.
2. The budget has three dimensions:
 - (a) A policy-making role in choosing how to allocate resources between outputs in terms or services, infrastructure etc., i.e., in deciding what the authority can hope to achieve;



- (b) A management role in allocating resources to particular agencies (departments etc.) to obtain the inputs (personnel, equipment, buildings etc.) required to achieve the outputs;
- (c) A control role in giving legal authority to the local-authority personnel to collect and spend money, and in prescribing exactly who can spend how much on what.

Capital and recurrent budgets

3. A traditional form of budgeting normally contains separate estimates of capital and recurrent revenue/expenditure. The capital budget is normally concerned with creation of long-term assets - roads, schools, water-treatment plants, tube wells. The recurrent budget (sometimes called the routine or revenue budget) is concerned with the regular operation of services, including the salaries, pension contributions etc. of personnel, the purchase of short-life equipment, the costs of routine repair and maintenance, and the servicing (repayments of capital and interest) of long-term debt.
4. In this traditional form of budget, regular revenue - taxes, charges, fees, grants-in-aid -is credited to the recurrent budget. The only revenue credited directly to the capital budget would be loans or grants specifically for capital projects or receipts from the sale of capital assets - land, buildings etc. If recurrent revenue exceeds recurrent expenditure, a transfer might be made from recurrent to capital budgets, so that the surplus can be devoted to capital spending.
5. There are some variations on this traditional breakdown. In some countries, the capital budget is replaced by a development budget which includes spending which is recurrent by nature (e.g., staff costs, travel) but developmental in purpose. An extreme example is financing university scholarships from the development budget on the grounds that the skills of the graduate represent a permanent asset. The purpose of such classification may be largely cosmetic, but it can be a device for funding particular types of expenditure from sources, such as external aid or loans, which are not available for recurrent expenditure. There are, however, considerable dangers in such practices, since they can result in building up a scale of regular commitment, for example, on permanent-staff costs or debt-service, which is not adequately backed by reliable recurrent revenue.
6. There are also certain notable "grey areas" between capital and recurrent expenditure. Debt-service is sometimes shown as capital expenditure; it should, however, be included in the recurrent budget, if it is a charge against recurrent tax, charging or grant revenues. Vehicles and equipment with a medium-term life (e.g., typewriters) may also appear in either budget. If they form part of the normal operation of services, however, and will have to be replaced at the end of their useful life, it is best to include them in a recurrent budget; if this results in very "lumpy" patterns of expenditure, this can be overcome by operating a renewals fund, with replacement costs being charged to the budget in regular annual installments over the estimated life of the asset.

Budget classification

7. The traditional form of municipal budget is normally subdivided according to the organizational breakdown of the authority, i.e., into a hierarchy of departments/directorates, sections, subsections etc., so that the amount allocated to each unit and sub-unit to collect or spend is clearly stated. Recurrent expenditure is further subdivided into "line items" by object of expenditure, e.g., personnel costs, travel, utilities, supplies.
8. A different approach is attempted by Programme Performance Budgeting Systems (PPBS) which classify expenditures by objective rather than organization. Proponents of PPBS argue that the traditional budget is concerned with inputs rather than outputs; it does not allow decision-makers to apply a true sense of priority to the allocation of funds, because it is not clear how much is spent on particular overall purposes, e.g., promotion of public health might be financed through a range of departments responsible for environmental health, water supplies and sanitation. A full PPBS groups expenditure by programmes serving objectives to which a number of operating units might contribute.
9. PPBS formats have proved complex to install, since budgeting across departmental boundaries presents control difficulties, defining objectives can cause controversy, and some expenditures serve more than one objective (policing, for example). A compromise approach widely adopted is to stick to conventional budgetary subdivisions by organization but
 - (a) To preface each department's estimates with a statement of objectives and output targets (e.g., "provide primary education for 90 per cent of children in the age group 6-12");
 - (b) To attach performance targets to the vote for each activity (e.g., "improve the percentage of refuse lorries in daily running order to 80 per cent");

- (c) To incorporate workload measures to show how variations in the funds allocated relate to variations in the work performed, e.g.:

Activity	Year	Estimated expenditure	Premises to be inspected
Food and drugs	1987	Rs. 50,000	536
Inspection	1988	Rs. 53,000	571

10. A related problem is that of overheads. Although it might be clear that a department's whole expenditure is incurred on specific activities with specified objectives, workloads, targets etc., these will also create costs for central departments providing administrative and technical support (personnel, accounting, internal audit, storekeeping, vehicle and building maintenance etc.). Even the department's own central management might divide its attention between a number of "outputs". Internal recharging is often used to overcome this problem, so that all expenditure in the budget is charged to activities with a direct output of service to the public. This is described in chapter XIII, paragraph 3 below.

Budget duration

11. Local authorities traditionally budget for one year. This might be the maximum period for which revenue and service costs can be predicted with sufficient certainty to make firm decisions carrying legal authority for execution. There are, however, a number of drawbacks to annual budgeting. Capital developments can rarely be completed within 12 months, yet commencement carries at least implied commitment to the full cost over two or more years and, also, to the extra recurrent costs of staffing, supplies etc. which might follow completion. Borrowing also involves an obligation to service a debt over the life of the loan.
12. To meet these problems, at least partly, it is normal to show the full cost of a capital scheme in the budget, while only authorizing finally the amount to be spent on it over the budget year. An estimate of the future operating costs should also be included in the memorandum accompanying the budget, so that the full cost implications are shown. This should help the authority to see whether the scheme is affordable and, also, what trade-offs might exist between construction and maintenance costs. Very often, apparent savings in capital costs have expensive consequences in recurrent operation.
13. Whether an authority can really afford the long-term consequences of decisions (i.e., in terms of either operating costs or debt service) will only be fully apparent from a multi-year forecast of overall revenue and expenditure. This is often attempted on a rolling basis, i.e., the forecast always looks X years ahead (normally three years); each year, the forecast is revised to take into account inflation rates and other unpredictable changes, and rolled forward one further year. Legal authority only attaches, however, to the figures for the current or immediately following year; the further years' figures are provided for planning purposes.

Single or multiple agency budgets

14. Some local-authority activities might be funded, wholly or in part, from revenues which are specifically collected for that particular purpose, e.g., a consumer charge or a special-purpose grant. It might also be the intention that such activities are "self-funding", i.e., paid for entirely by the users, so that any charge on the general taxpayer should be limited and, therefore, clearly shown and monitored. For such purposes, budgets must clearly show the relationship between the expenditure, its related revenue sources and any subsidy from general revenue.
15. To achieve this degree of budgetary isolation or flexibility, local authorities often set up a subsidiary agency or enterprise to undertake a self-financing activity, such as a water-supply service, markets or public-transport service, with its own accounts, balances and budgets. Any subsidy from general revenue will be shown as a revenue item in the undertaking's budget and as an expenditure item in the parent authority's main budget.
16. Municipal activities with specific revenue sources might be too small or many to justify full separation from the main budget, and proliferation of separate accounts, balances and budgets makes it very difficult to obtain an overall view of an authority's financial performance. A compromise approach is to operate "special accounts" or "undertakings" only for one or two self-financing services, such as water supply, but to show tied revenue resources as "appropriations in aid" with the relevant expenditure within the budget, e.g.:

	Rs.
Operation of sports centres	70,000
Less admissions fees and hire charges	25,000
Net general fund expenditure	45,000

17. There is a further refinement to the relation of expenditure to specific revenue sources. The authorization of expenditure can be tied to the amount of actual revenue collected. In the sports centre example given above, the amount of expenditure authorized by the budget could be any of the following:
- (a) Rs. 70,000, regardless of how much revenue is actually collected;
 - (b) Rs. 45,000 plus the actual amount of revenue collected up to a maximum of Rs 70,000;
 - (c) Rs. 45,000 plus the actual amount of revenue collected, however much.

Clearly options (b) and (c) provide the operating department with incentives to market a service and collect revenue efficiently, and also to vary expenditure in response to consumer demand. Option (a) would only be sensible where the service was a significant "public good" and the revenue generated largely fortuitous (e.g., fines for contravention of public-nuisance controls).

Budgetary responsibilities and stages

18. Budget preparation normally involves a series of stages:
- (a) Submission of first draft estimates of revenue and expenditure in respect of each organizational division and subdivision;
 - (b) Scrutiny of departmental submissions by the central budget staff and initial discussion with the departments. Analysis will focus initially upon the accuracy of the estimates, in terms of costing and legality, but will also seek to establish a sense of justification and priority for proposed increases as well as the possibility of economies;
 - (c) Formulation of a draft comprehensive budget with options for revenue increases, expenditure increases/reductions etc.;
 - (d) Executive decision on the final draft of the budget;
 - (e) Enactment of the budget by the authority's governing body;
 - (f) Approval of the budget, if required by law, by a central-government ministry or other supervisory body.
19. Responsibilities for these various stages vary according to the statutory and internal management framework of the local authority. Possibilities are:
- (a) Submission of first draft estimates: Preparation might be by the operating departments or by central budgeting/accounting staff in consultation with them. Council committees might also discuss and approve drafts for services under their supervision at this stage;
 - (b) Scrutiny of the drafts: This is normally conducted by the central budget staff who might come under the chief executive (whether an elected mayor or an appointed Municipal manager/town clerk/municipal commissioner) or under a chief finance officer (treasurer, director of finance etc.).
 - (c) Formulation of a draft comprehensive budget with options: This is normally the duty of the central budget staff. An assessment might be offered of the various options, both in terms of technical feasibility and overall balance, but this must only be seen as assisting political choice not pre-empting it;
 - (d) Decision on the final draft of the budget: This is by the chief executive, the finance committee or a "bureau" of senior political leaders (e.g., a policy and resources committee, a Municipal commission);
 - (e) Enactment of the budget: This is normally by an elected council.
 - (f) Approval of the budget: This would be by a central or state government minister or by a provincial governor or commissioner, as required by law, but such approval is not invariably required. A supervisory authority might also scrutinize and comment on the budget before it is enacted.

20. In some countries, there is wide public participation in the budget process. Business firms, voluntary and charitable organizations, neighbourhood associations etc. will lobby the Council either for direct assistance or for extra expenditure on particular services. There might even be formal public hearings at which local-authority officials explain budget proposals, and members of the public have the opportunity to question them and voice opinions.

XII. REVENUE ESTIMATION

Itemization

1. Revenue estimates should be itemized under individual taxes, charges, fees, loans, grants etc. Comparisons over time should be shown, including, in respect of each item, actual receipts in the previous year, probable receipts during the current year and estimated receipts in the forthcoming year for which the budget is being formulated. For example, the 1989 budget would show:

Actual revenue, 1987
Probable revenue, 1988
Estimated revenue, 1989

The existing revenue base

2. The first stage is to estimate revenue from existing sources on existing conditions, i.e., according to the existing tariffs, the existing rules about liability and assessment and the existing methods of collection. These estimates will normally be based upon projections of recent experience. It is important, however, to analyse each revenue item with regard to the specific factors which cause variations in yield from year to year. Tax yields might vary, for example:

- (a) With changes in the specific tax base, e.g., the number and size of buildings bearing a property tax or the number of vehicles subject to a registration tax;
- (b) With fluctuations in the general economy, influencing the yield of revenues such as a local sales tax.

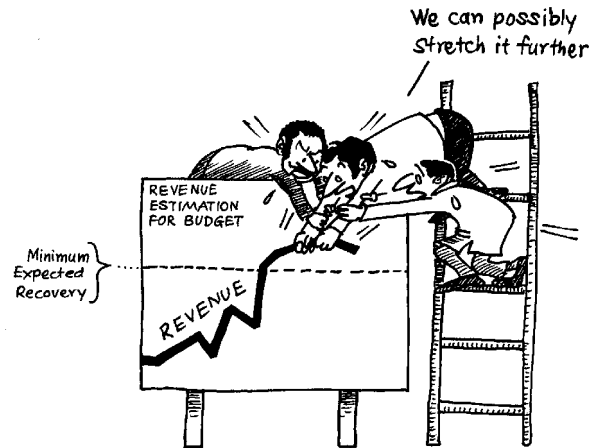
Charging revenues will vary with the volume of service offered (if the service is always fully utilized) or demanded by the public. Once the causes of variation are understood, their impact upon revenue yields in the forthcoming year can be predicted. Above all, it is important to be realistic and to avoid the temptation to support authorization of increased expenditure simply by inflating revenue estimates beyond reasonable expectation.

3. It is then necessary to estimate what increases in revenue could be obtained by specific changes in the existing revenue sources. Such changes could be of several kinds:
- (a) Widening the scope of the tax or charge and increasing the number of people or transactions liable to the payment, e.g., by removing existing exemptions;
 - (b) Changing the assessment methods, so that some or all payers become liable for a higher rate of tax or charge than previously;
 - (c) Increasing the tariffs, i.e., the rates of tax or charge;
 - (d) Changing collection methods to reduce evasion or accelerate payment.

Changing the revenue base

4. The criteria for evaluating any proposals for specific changes are those that have already been discussed in Chapters V and VI. As a first step, it is necessary to identify the underlying purpose of each revenue source, whether it is meant to be:
- (a) A contribution to general expenditure or a recovery of the cost of a particular service;

- (b) If a recovery of a particular cost, whether it is meant to be a straight recovery of the cost, a recovery with



profits, a recovery less an element of subsidy to all users, or a recovery less a subsidy to certain classes of user (e.g., children, old people, the physically handicapped, the poor);

- (c) A "flat" levy or a redistributive one, i.e., meant to fall more heavily upon the rich than the poor.

5. A second step is to appraise the recent performance of each revenue source. Two questions to be asked are:

- (a) In the case of a charge, have yields kept pace with the costs of the service for which it is levied?
- (b) In the case of a tax, have yields grown at the same rate as the base upon which it is charged, e.g., have property tax yields kept pace with the growth of property and its value, have sales tax yields kept pace with the growth in local earnings, has a personal tax revenue grown in proportion to local population?

6. A further step in appraising the potential for changes, is to compare revenue yields with those in other comparable authorities. In the case of taxes, a per capita comparison might provide a quick indication of any striking contrast in performance; in the case of a charge, the comparison would have to be in terms of revenue per unit of service (per ton of commercial refuse collected, cubic metre of water supplied etc.). Where another authority appears to achieve markedly high yields, it would be necessary to examine differences in coverage, tariffs, collection methods etc., to see where the greatest possibility of improvement lies.

7. Finally, consideration should be given to the possibility of introducing new sources of revenue, whether taxes or charges. Clearly, there are statutory, political and administrative obstacles to new revenues (these are usually greatest in respect of new taxes), and improving an existing source is usually easier than introducing a new one. Nevertheless, many municipal revenue bases are so narrow that the burden of financing urban services is unfairly distributed among the beneficiaries, and/or there is little hope of achieving the scale of increases needed to meet the demands of an expanding town.

8. The range of local revenue possibilities has been explored in Part Two, together with the criteria for appraising them. These will not be repeated here.

Summary

9. This stage of revenue estimation will provide an initial estimate of the range of revenue expectations to be reconciled at a later stage, with expenditure estimates. The minimum will be the expectation from existing sources at existing levels (unless there is pressure for an actual cut in existing revenue charges) to which can be added the yields of different possible increases, ranked in order of their desirability and feasibility.

XIII. EXPENDITURE ESTIMATION

Itemization

1. As discussed in chapter XI, it is normal to classify expenditure according to the departmental organization and, then, by the different activities undertaken within such divisions. In conventional budgeting, expenditure on an activity is further broken down into cost items, such as salaries and wages, transport costs, postal and telephone charges and supplies. Detailed costing of inputs will clearly be needed at the initial estimate stage, to support the proposed expenditure on each activity, but whether such level of detail should be incorporated in the final authorized estimates is more questionable. Too much detail might distract the attention of those approving the budget (particularly the councillors) from the main choice of priorities; moreover, it might be considered to authorize lump-sum allocations to each activity, leaving spending departments with discretion to allocate money between different cost items while still serving the same purpose. Limitations can still be imposed upon particular types of cost which the authority wishes to control centrally, e.g., additional hiring of staff.
2. The alternative possibility of classifying budgets by objectives has been discussed in chapter XI. Given the difficulties of a full PPBS approach, most systems of local government continue to subdivide the recurrent budget at least by operating department/agency, and, in the case of the service departments, it may be argued that those correspond to outputs such as education, recreation and public health.
3. An intermediate approach to this problem is that of "recharging". This practice relates to departments and sections, e.g., personnel, motor-transport pools, stores, which exist to service other departments rather than to provide a direct service to the public. A budget is prepared for such a section, but its expenditure is then recharged to the functional departments in proportion to their use of its services; these departmental charges are shown as revenue to the service department, canceling out its expenditure, so that the cost of its work is shown as a net charge on the different functions of the organization. Clearly, such a process enables the decision-maker to see the real costs of the functions of the organization, e.g., the real costs of education include not only the expenditure of the education department but also the costs of the central accounting staff who pay the teachers' salaries and the personnel staff who keep the teachers' employment records. Recharging complicates the budgeting and accounting process and how far it can be practiced depends upon the administrative capacity of the organization. There is also a danger that recharging reduces the accountability of the central departments, whose costs are offloaded on to the budgets of service departments which have no control over their level. Central departments might then be subject to insufficient budgetary scrutiny, because of a spurious appearance of self-financing.

The existing expenditure base

4. Most governmental budgeting, central or local, tends to be on an incremental basis, i.e., existing costs are accepted as a base to which amounts are added for inflation, expansion in demand or improvements. The weakness of "incrementalism" is that it accepts the historic costs of a service as given and does not examine such questions as:
 - (a) Is the service provided by the expenditure still justifiable or of sufficient priority to merit its current share of resources?
 - (b) Is the service fairly distributed among its consumers? Geographical inequity is often prevalent in municipal services, particularly in roads, parks etc.
 - (c) Is the service being performed efficiently and economically?
5. The alternative is to use a zero-base approach. This would ignore current provision and estimate expenditure from scratch, according to the following steps:
 - (a) Decide what kind of service is needed (e.g., refuse collection);
 - (b) Set a standard of provision for the service (e.g., a twice weekly collection);
 - (c) Estimate the unit costs of the service at this standard (e.g., Rs 5 per ton of refuse collected);



- (d) Estimate the quantity of service needed to meet the standards (e.g., removal of 100 tons of refuse per day);
 - (e) Estimate the total expenditure needed to perform the service, multiplying the quantity of service by the unit costs (e.g., 100 tons of refuse per day at Rs 5 per ton = $100 \times 5 \times 365 = \text{Rs } 182,500$).
6. There are obvious difficulties in applying the zero-base approach to the whole of the municipal budget. It is unlikely that the authority could undertake the amount of analysis required, since some services are much easier to define, in terms of standards, units of provision and unit costs, than others. Assessments of needs, standards and priorities are basically subjective; to define them all from scratch would lead to endless inconclusive debate, whereas definition might be easy to agree in a particular case, e.g., when a particular service is clearly perceived as substandard or when a choice of priority has to be made between a very limited range of "hard" options. Moreover, even if a zero-based budget was constructed, any variation from the historic pattern of expenditure would be difficult to achieve in the short term.
7. Nevertheless, the existing expenditure base should not be accepted without question. Possibilities of savings through increased efficiency need to be examined, questions need to be asked about the justification of a service or its level, and the distribution of the service, particularly geographical, needs to be examined. Unit-costing is a particularly valuable instrument in such examination, i.e., the expenditure per unit of service (e.g., Rs X per ton of refuse collected, per kilometre of road maintained, per school pupil, per acre of park). Various comparisons of unit cost can be made:
 - (a) Between the local authority's services and those of other comparable authorities;
 - (b) Between the costs of services in different parts of the Municipal, e.g., between different schools, different road maintenance gangs or different refuse-collection units;
 - (c) Between the costs of different departments incurring a similar type of expense, e.g., costs per mile of lorries;
 - (d) Between the costs of the same department and service over time, e.g., costs per ton of refuse collection over the past five years (after discounting inflation).

Some services might not be readily reducible to units of provision, because output is not easily quantifiable or there is no uniformity in the type of service provided. In such a case, comparison (between authorities or over time) of expenditure per capita might be a proxy measurement.
8. Comparisons of unit costs (or expenditure per capita) do not themselves prove anything. They simply indicate the areas of expenditure which need detailed examination. They raise such questions as:

- (a) If Authority A spends 50 per cent less per ton in refuse collection than Authority B, are its collection methods more efficient and worth imitation? (There may be other explanations such as shorter distances to dumping sites or lower market wage rates.);
 - (b) If costs per unit have been rising over time, is this due to improving quality (and is this a priority) or to lessening efficiency?
 - (c) If a service costs more in one part of the Municipal than another, does this correspond with real public need?
9. Close analysis of all existing expenditure might not be possible in one budget preparation, and, selectivity might be necessary. Simple comparisons of expenditure per capita at constant prices on each service either over time or between comparable authorities should provide an initial basis for selectivity. It should highlight expenditure fields where:
- (a) There is apparent scope for substantial economy through improvements in efficiency;
 - (b) There is apparent under financing and need for increased investment (such conclusion would normally arise from a combination of financial analysis, public complaint and physical evidence of deteriorating service).
10. The existing expenditure base therefore needs some examination in terms of:
- (a) Potential savings and improvements in efficiency;
 - (b) Lessening public demand for the service;
 - (c) Desirable redistributions of costs to achieve an equitable provision of service.

Transfers of responsibility to other agencies might be another ground for saving; departments do not always reduce their staffing and other costs automatically when a task is removed. Savings might well be resisted through fear of the effect upon employment; however, in an expanding Municipal, redeployment of staff might be possible to services where expenditure is justifiably rising.

Increases in expenditure

11. Once the expenditure base has been determined, a number of potential increases have to be examined. The first set to be considered is of increases arising from inflation. In the absence of itemized information these might have to be deduced from a general rate of inflation prevailing in the economy or in the organization. However, it would be most accurate to look at each type of cost, e.g., wages, building costs, fuel costs, general supplies, and project an individual rate of inflation for each of these according to indices available. It is becoming common to include a general provision for inflation in expenditure estimates; however, there is the danger that to include specific provision for inflation is inflationary in itself, e.g., by encouraging the demand for wage rises which the estimates themselves predict. The alternative in such a case is to include a budgetary surplus to cover anticipated rises in expenditure above the level authorized in the budget.
12. The next set of increases to be considered would be those arising from prior commitments by the local authority, i.e., those increases which are unavoidable. These might result from previous decisions; for example, if capital development is in progress, increases in expenditure might be committed in the following year under construction contracts, to repay part of the loan or interest upon it and to meet the operating expenses of the completed project. Alternatively, additional expenditure might be imposed on an authority because of the rising public demand for a service which it has an inescapable obligation to provide, e.g. coping with an increasing number of applications for planning consent or emptying the dustbins on a new housing estate. It is important to ensure, however, that the increases in expenditure proposed are in proportion to the increased amount of work involved and to take advantage, where possible, of economies in scale. In this respect, use should again be made of unit-costing.

Box 14
Land-sharing

Land-sharing is an instrument designed to increase the supply of serviced land while keeping public expenditures to a minimum. The principle is quite simple, although implementation can be more complex, usually requiring protracted negotiations between parties concerned.

Three basic scenarios are envisaged and have been used successfully. In all three cases, the local authority plays a key role as an "enabler".

- (a) *Privately-owned land, occupied by squatters or informal settlements where eviction is politically unacceptable.* The squatters cannot secure tenure or land titles, thus inhibiting infrastructure provision. At the same time the landowner cannot capitalize on what is rightfully his or hers. Land-sharing would entail site improvement, redistribution of plots with minimum eviction and returning a portion of the improved site to the landowner in exchange for the land used for settlement upgrading and security of tenure for the squatters.
- (b) *Occupied publicly-owned land.* A piece of publicly-owned land is occupied by squatters. However, local authorities are hard-pressed to find the resources required to undertake site-improvement. A private developer undertakes site-improvement in exchange for a portion of the land corresponding to the capital investment and a reasonable profit. The squatter settlement is rehabilitated, the private developer is authorized to sell his share and, depending on the density of occupation prior to the land-sharing exercise, the local authority may still dispose of a portion of the land for future use.
- (c) *Vacant publicly-owned land.* Basically the same operation as (b) except that the local authority is left with a portion of serviced land for resettlement or resale purposes.

13. The final set of increases to examine is that of uncommitted proposals for improvement or expansion of services, i.e., those involving expenditure which the authority still has the opportunity to reject or postpone. In examining these proposals, three basic questions have to be asked at this stage:
 - (a) Are the proposed improvements or expansions of work consistent with the priorities of the authority?
 - (b) What are the long-term costs of the proposal? If it is accepted for the forthcoming year, will it commit the authority to heavy increases in following years?
 - (c) Is the extra expenditure sought commensurate with the increased amount of work proposed?
14. Uncommitted proposals for improvement/expansion of services have to be considered as part of an objective analysis of public-service needs. Needs are affected by:
 - (a) Demographic trends, arising both from natural growth and migration, leading not only to changes in total population but also to its age distribution (in many developing-country cities, for example, the rate of increase of school-age children may be faster than that of the population as a whole);
 - (b) Economic trends leading to expansion or decline in particular types of business and employment, with its consequent demands upon infrastructure;
 - (c) Physical trends, leading to growth of urban settlements in particular localities but also to decay of existing settlements in others.
15. Planning expenditure to meet these needs requires both:
 - (a) An inventory of existing deficits in the provision of services;
 - (b) A forecast of changing demands for a service, both in its total provision and in its physical distribution through a Municipal.

Where changes in provision are required to meet such needs, they cannot be achieved within a single year's budget. A medium-term plan of both capital and recurrent expenditure is required, so that realistic targets can be set for achieving required improvements and expansions over time. Such plans might not be necessary for all services -simply for those where large deficiencies exist and/or significant changes in need can be anticipated.

16. Medium-term forecasts of expenditure needed for changes in service provision might well result in demands for funding at an unattainable level. Only medium-term forecasting, e.g., over three to five years, can provide the basis for such judgement and for assessment of the measures needed to overcome the problem. Solutions might include:
 - (a) A fundamental reassessment of the standards of service provision, with substitution of low-cost solutions, (e.g., privies or septic tanks etc. for waterborne sewerage);
 - (b) Partial privatization, i.e., leaving certain types of service to be provided by the private sector (e.g., commercial refuse collection and disposal);
 - (c) A renegotiation of financial relations with central government, leading to central government;
 - (i) Undertaking more responsibilities itself than before;
 - (ii) Assigning additional grant aid;
 - (iii) Assigning additional revenue sources;
 - (iv) Revising statutory limitations on local taxing and charging powers.

Summary

17. To summarize, this stage of expenditure estimation will produce:
 - (a) A base aggregate expenditure consisting of:
current expenditure,
minus transfers of responsibility,
minus reductions in workload, minus other economies,
plus inflationary increases,
plus committed increases in workload/obligation;
 - (b) A set of proposals for uncommitted increases, preferably in rank order of priority.

This, together with the initial revenue estimates described in chapter XII, provides the basis for the further stages devoted to balancing the recurrent budget.

Capital budgeting

18. Capital-expenditure budgeting involves a variation in format. Expenditure is based on the phasing and progress of a single project over a number of years rather than on fixed allocations for fixed time periods. The estimates should, therefore, include details of the following:
 - (a) Total original estimate for the project;
 - (b) Total revised estimate, taking into account subsequent amendments and increases in cost;
 - (c) Total expenditure up to the end of the previous year;
 - (d) Total anticipated expenditure by the end of the current year;
 - (e) Anticipated expenditure during the forthcoming year (for which the budget has been formulated);
 - (f) Estimated unexpended balance of the project at the end of the forthcoming year.
19. Approval of recurrent expenditure is ultimately dependent on the reconciliation of overall expenditure with overall revenue capital expenditure, by contrast, is normally financed on a project-by-project basis. Revenue from recurrent budget surpluses, bond or stock issues or sale of capital assets might be available for capital expenditure, but otherwise a source of funding has to be generated for each scheme.

20. Sources of capital finance include:
- (a) Revenue surplus (i.e., over current expenditure);
 - (b) External loans (from banks, donors, loan authorities etc.);
 - (c) Internal borrowing (against superannuation funds, renewals funds etc.);
 - (d) Stock or bond issues;
 - (e) Sales of assets (e.g., land, buildings etc.);
 - (f) Hire-purchase/contractor finance.

The capital budget should clearly state the source of funds for each project. Authorization will, then, depend on the realization of the revenue source, e.g., a loan-funded scheme can only be commenced when the loan has been obtained. The exception relates to those projects financed from revenue surplus, i.e., from funds already at the authority's disposal at the time of budgeting. It is not always easy to predict exactly how much capital expenditure on a project will be completed within a financial year. Normally, unexpended balances will be automatically revoted in the following year's budget, assuming that these are supported by unexpended balances of the loans, grants, reserves etc. by which the scheme is financed.

21. Methods of appraising capital-expenditure proposals are not discussed here. They involve techniques of project appraisal which are the subject of separate publications and exercises.

XIV. BALANCING THE BUDGET

State of reserves

1. The first question in balancing a budget is whether to estimate for surplus, break-even or deficit. This is partly determined by the state of the local authority's reserves. Reserves are needed:
- (a) To provide a cushion against a large unexpected demand for expenditure or shortfall in revenue (often resulting from natural calamity or a sudden downturn in the economy);
 - (b) To insure against year-to-year fluctuations in revenue;
 - (c) To provide working balances where expenditure tends to run ahead of revenue in time;
 - (d) To accumulate resources to meet a large future commitment such as renewal of plant and buildings.

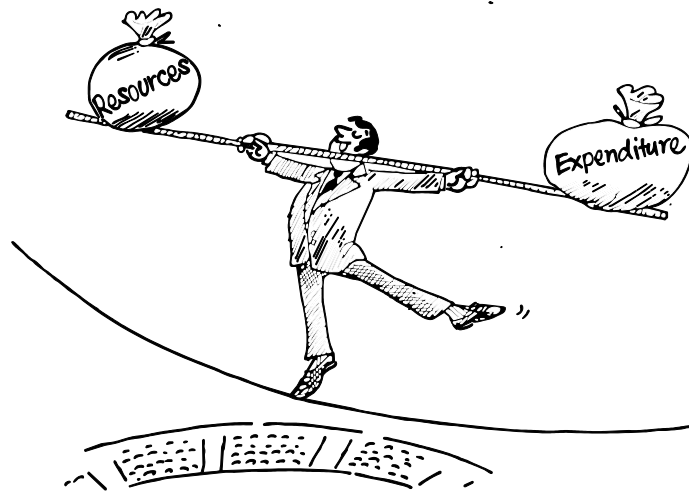
Reserves must be reviewed at the beginning of the budgetary process; if they are considered inadequate, the authority should seek to replenish them by budgeting for a surplus of revenue over expenditure during the year. Alternatively, the authority can afford a deficit on its budget to the extent that its reserves are above the safely level. One option is to cover a budgetary deficit by external borrowing; there are (controversial) economic arguments for this practice, but it runs the risk of encouraging a level of expenditure and indebtedness which eventually outstrip the authority's capacity to service its loans and retain the confidence of potential lenders.

Self-financing expenditure

2. A second stage is to distinguish self-financing from general fund expenditures (see chapter XI, paragraphs 14-17). Items of expenditure which are supposed to be directly recoverable should be compared with the appropriate revenue estimates, and any net "profit" or "subsidy" should be carried forward to the general-revenue or expenditure totals, respectively. If expected revenue does not cover expenditure on such items, possible cuts in costs or increases in charges should be examined, to see if the subsidy from general revenue can be eliminated or reduced.

Other approaches

3. At this stage, three options for balancing a budget can be considered:
- (a) The first is to decide upon a total expenditure ceiling and direct each department to budget within a share of this, allotted in advance. Aggregate expenditure would be calculated after examining the state of reserves and revenue estimates, and deciding at what level revenue charges and taxes were to be fixed. The breakdown of this total into departmental allocations might be based upon a flat average increase over the current year's total: it is best, however, if allocations can incorporate some variation based upon priorities, with weightings based on a generalized statement of priorities or on agreed long-range forecasts of expenditure.
 - (b) The second approach is to call for revenue and expenditure estimates independently and then reconcile them stage by stage. At the first stage, the lowest-priority, uncommitted expenditure increases would be cut until aggregate expenditure was supportable by possible revenue collections. At the second stage, the merits of high-priority uncommitted increases would be compared with those revenue increases regarded as feasible but not necessarily desirable. A balance could then be struck. In a tight situation, however, the feasible revenue increases might only just cover committed expenditures, necessitating the elimination of all uncommitted proposals. If the budget can still not be balanced, economies in committed expenditure will have to be achieved; the normal approach would be to look for reductions in overhead expenditure first, but ultimately cuts in output and service might have to be considered.
 - (c) A third and intermediate approach is to establish an expenditure ceiling for each department after the first stage of reviewing estimates, i.e., cutting out the lowest-priority expenditures, then setting revenue levels and expenditure aggregates and passing the onus back to departments to achieve reductions necessary. This might be necessary where it is politically or administratively impossible for the financial managers to determine all the real opportunities for economy themselves. Departmental ceilings established at this stage can be weighted accurately to take account of the varying needs and commitments revealed by the first set of estimates, if there are no long-term forecasts as a guide.
4. Arbitrary cuts in overheads, freezing of staff vacancies etc. might be the only effective way of achieving economy. However, where cuts in output are required, these need to be specified to be effective. Otherwise, the purpose of the economy can be evaded by postponing work, maintenance or payment of bills.



XV. CASE STUDIES

A. DAGPUR MUNICIPAL COUNCIL

Stage III - Expenditure Planning and Forecasting

Timing mid-1989

Trainers' notes

This chapter involves two further stages of the case study. Stage III uses revenue and expenditure forecasts to estimate ability to reach desirable expenditure levels in high-priority services over the medium term, and identifies the lower-priority functions where expenditure growth will have to be severely restricted.

At stage IV the municipality is faced with implementing the medium-term financial strategy it has designed over the previous stages by compiling an annual budget. The expenditure estimates submitted by departments reflect their own interests, not the collective priorities of the strategy. Groups have to go through the process of judging these bids by the criteria of the strategy, reviewing earlier forecasts of tax and charge rates, and balancing the budget. This stage is suitable for role-play with individual participants taking the parts of departmental heads or subject committee chairmen.

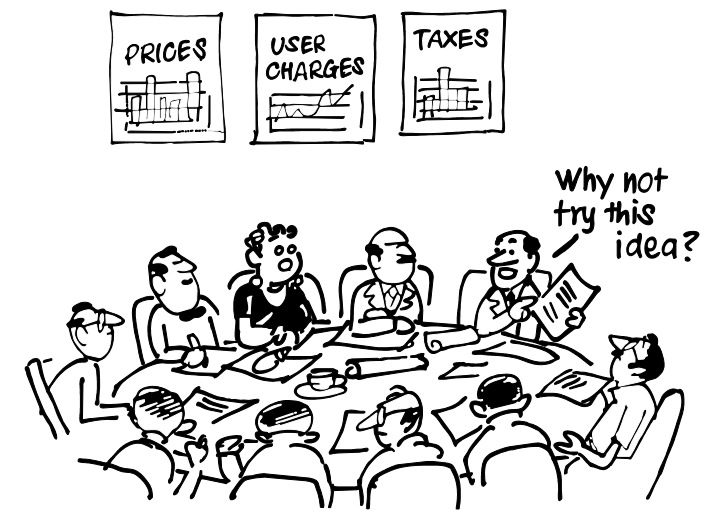
One detailed point that often escapes attention is the need to compare departments' estimates of rising costs with actual rates of inflation.

A. Introduction

1. In stage II (chapter XA), a series of decisions concerning the reform of Dagpur Municipal Council's finances have been announced. DMC has been called upon to submit a forecast of revenue and expenditure over the next three years, 1990, 1991 and 1992, and to plan the systematic improvement of two services: road construction and maintenance, and refuse collection.
2. In stage II improvements in revenue from property tax, development levy and charging have been planned, and three-year forecasts of revenue made.

Assignment

3. Readers should now turn to expenditure plans and forecasts. In particular they should now produce in respect of the period 1990-1992:
 - (a) Financial plans (capital and recurrent) for improvements in road construction and maintenance (see appendix A) and solid-waste collection (see appendix B);
 - (b) Overall projections of recurrent and capital expenditure under each head, which should be (compatible with the revenue forecasts and the financial plan for education produced in stage II (see chapter XA).
4. Readers are reminded of the details of performance for 1984-1988 and the revised estimates for 1989 given in appendix D of stage II.
5. The retail price index at 1 January 1989 stood at 149 (January 1984 = 100), and the rate of inflation during 1989 is estimated to have fallen to 3 per cent. Allowance for inflation should be made in the 1990 projections, but forecasts for 1991 and 1992 should be made at constant (1990) prices.



Appendix A

ROADS AND LIGHTING

1. DMC's Municipal Engineer's Department is responsible for construction and maintenance of all roads, roadside drains, footpaths, bridges, street lighting, road signs and traffic signals.
2. The existing road network is as follows:

Trunk roads: 10 kilometres
Principal roads: 40 kilometres
Distribution/local roads 104 kilometres (70 asphalted and 34 gravel)

The basic road network has been sufficiently developed to carry the current traffic volume, except for the trunk road leading to the port which is heavily congested, particularly at intersections where through traffic competes with internal Municipal traffic. However, road maintenance has become a problem due to under funding, low soil bearing capacities in marshy areas, flood proneness in certain areas and a rapid increase in heavy container vehicles and other heavily loaded lorries going to the port and the industrial area. There has been a deterioration in road surfaces in recent years in the downtown area. Moreover, some unsurfaced roads in the hilly fringe areas are becoming impassable due to gully erosion.

3. Routine maintenance costs in rupees per kilometre per year are estimated as follows:

	Trunk roads	Principal roads	Local roads
Cleaning drains and vegetation, maintaining shoulders etc.	40,000	20,000	10,000
Street-lighting operation	80,000	40,000	18,000
Traffic signs	20,000	20,000	6,000
Grading (gravel roads)			6,000

4. It has been agreed in principle, that efforts should be made to restore road surfaces to a reasonable state of repair over the next three years (1990 to 1992). A survey has shown that the following are needed:

	Trunk roads (km)	Principal roads (km)	Local roads (km)
Resealing	2	3	8
Resurfacing (asphalt)	3	11	18
Resurfacing (gravel)			15
Reconstruction	2	9	14

5. Resealing and resurfacing are normally carried out by direct labour. However, some work has been contracted out by public tender. Average comparative costs in rupees per kilometre in 1988 were:

	Resealing	Resurfacing (asphalt)	Resurfacing (gravel)
Trunk roads			
Direct labour	400,000	2,000,000	-
Contract	420,000	1,850,000	-
Principal roads			
Direct labour	300,000	1,500,000	-
Contract	280,000	1,400,000	-
Local roads			
Direct labour	200,000	1,000,000	100,000
Contract	210,000	1,200,000	130,000

Reconstruction is contracted out by tender. Average costs in rupees per kilometre are estimated at:

Trunk roads 5,000,000
Principal roads 4,000,000
Local roads 2,400,000

6. The Department's fleet of vehicles and equipment consists of:

Vehicle	Unit replacement cost (Rs.)	Average operating life (years)
2 dump-trucks	1,000,000	5
1 paver-finisher	2,000,000	10
2 road-rollers	1,400,000	10
1 bulldozer	2,000,000	10
1 grader	1,600,000	8

However, it is necessary to replace the grader and road-rollers, and the Department should comply with the new policy of inserting renewal-fund contributions into the annual budget.

7. Operating costs are included in the maintenance costs of roads listed above. Departmental supervisory/overhead costs work out at 10 per cent of operating and maintenance costs.
8. The details given so far relate to the maintenance and rehabilitation of the existing system. However, a number of new construction schemes have been identified as necessary over the next three year period, They are as follows:
- Segregation of the trunk road to the port from internal Municipal traffic:
 - Construction of two "fly over" junctions at Rs 20 million
 - Construction of a 2-kilometre bypass at Rs 3.5 million per km
 - New residential and commercial areas:
 - Construction of 10 kilometres of principal road at Rs 5 million per km
 - Construction of 35 kilometres of local road at Rs 3 million per km
 - Upgrading of street lighting:
 - 16 km at Rs. 10,000 per km
 - Traffic management improvements (new signals and junction improvements):
 - Rs. 10 million

Assignment

9. A financial plan should be prepared for progressive improvement of the road system over the years 1990-1992.

Appendix B

SOLID-WASTE COLLECTION

1. The DMC's Municipal Cleansing Department is responsible for solid-waste collection and disposal. Collection is twice weekly in most residential areas but daily in the central business district and suburban shopping and market areas. It is estimated that the Municipal generates approximately 250 tons of refuse daily but that only 60 per cent of this is collected currently. During the past five years the volume of refuse generated has been growing at approximately 7 per cent per annum.
2. Collection is basically by lorry. One lorry is estimated to be able to remove 8 tons of refuse per day on average, making two round-trips to the dump sites. DMC has a fleet of 20 trucks, but only four of these have been purchased during the past three years, and most are in need of constant repair. A new vehicle currently costs Rs 600,000; efficient running life is estimated at six years. It has been agreed in principle that vehicles beyond their useful life should be replaced and the fleet increased to a fully operational size over the three-year period, 1990 to 1992, and that contributions to a renewals fund should also be included in the annual expenditure budget, so that regular replacement will be possible thereafter.
3. Running costs of each lorry (fuel, insurance and maintenance) are estimated at Rs. 150,000 per annum. Each lorry operates with a crew of one driver and five loaders. Drivers are paid Rs. 12,000 per annum on average, and loaders Rs 6,000. However, the labour force is maintained at 40 per cent above daily operating requirements, to cover weekend working, sickness and leave.
4. Approximately 17,000 houses and small shops are located in old bazaar areas and squatter settlements, where the roads are too narrow for the refuse vehicles. In these areas, refuse (insofar as it is collected at all) is moved by pushcart or wheelbarrow to central collection points where it is loaded on to the lorries. These points are little more than piles of refuse on open sites, and much of the refuse blows away into the streets and drains both on the sites and in transit to them.
5. It has been decided to improve the collection in these areas by a series of measures:
 - (a) Provision of large bins at the rate of one per five households. These bins cost Rs. 200 each;
 - (b) Daily collection of bins in pushcarts. It is estimated that 70 staff at Rs 6,000 per annum and 35 pushcarts at Rs 2000 each are required for this purpose;
 - (c) Construction of seven collection points where the refuse can be transferred to lorries. These would be properly fenced, with hardstanding, loading platforms etc., and would cost, on average, Rs 400,000 each.
6. Disposal is at dump sites on the edge of the Municipal. Disposal costs are estimated to average Rs 20 per ton (including land purchase, labour and operation of bulldozers). Two bulldozers at dump sites are nearing the end of their useful life and becoming unreliable. Replacements are estimated to cost Rs 2 million each.
7. The Cleansing Department operates two vacuum tankers for emptying septic tanks. Running costs are Rs 160,000 per vehicle, plus Rs 28,000 per annum for the driver and crew. The tankers are adequate in number and in good repair, but it has been agreed that renewal fund contributions should be included in the annual budget in future, to cover eventual replacement. Tankers currently cost Rs 1 million each and have an estimated running life of five years.
8. Finally, the Department is also responsible for street sweeping. 165 labourers are employed at an average of Rs 6,000 per annum. Tools and other equipment cost Rs 400,000 per annum. Five watercarts are also employed for street cleaning. They cost Rs 800,000 each, with running costs (including labour) of Rs 170,000 per annum. Three watercarts are in reasonable repair; the other two are old and unreliable.
9. The Department's supervisory/overhead costs (i.e. central office costs, senior officers, foremen and clerical staff) are estimated at 10 per cent of operating expenditure.

Assignment

10. A financial plan should be prepared for progressive improvement of the service over the years 1990-1992.

B. DAGPUR MUNICIPAL COUNCIL

Stage IV - Annual budgeting

Timing: Late - 1989

- Budgeting for 1990 is now in progress. At appendix A are the revised estimates for 1989, at appendix B is a summary of estimates of recurrent expenditure submitted by each department for 1990, and at appendix C is a summary of capital expenditure submissions. (Estimates for education, roads, lighting and solid-waste management will be assumed to comply with the financial plans, formulated in stages II and III.)
- A change of format has been adopted. Rents and charges are being credited as revenue to the departments by which they are collected, and deducted from their gross expenditure. They are accordingly deleted from recurrent revenue.

Assignment

- Imagine yourself to be the Treasurer of DMC. Draw up a memorandum to the Finance Committee:
 - Providing revenue estimates for 1990 (stating the assumptions on which they are based);
 - Suggesting the recommendations to be made to the Council on the estimates including:
 - Recurrent expenditure totals for each department;
 - Which capital projects are to be included;
 - The suggested rate of property tax for 1990;
 - Any other changes in taxes or charges.
- Your recommendations should refer and relate to the agreements with central government and the forecasts and revenue proposals made at stages II and III. (Departmental proposals have been made on the basis of the current rents and charges.)

Appendix A			
DMC Revised Estimates, 1989 (General Fund only) (millions of rupees)			
Recurrent revenues		Recurrent expenditure	
Property tax	64	General administration	12.7
Development levy	75	Financial administration	2.6
Entertainment tax	22	Education	66.5
License fees	18	Public health	40.6
Interest	3	Solid-waste management	18.0
Education grants	23	Roads and lighting	31.7
Miscellaneous	5	Fire	5.0
Total	210	Libraries	3.0
		Recreation	6.0
		Social welfare, administration and miscellaneous services	1.9
		Total	188.0
Capital receipts		Capital expenditure	
Loans	5	Education	27
Grants	8	Public health	1
Sales of capital		Solid-waste management	0
Assets	2	Medical services	6
		Roads and lighting	4
Total	15	Fire	1
		Libraries	0

		Recreation	2
		Social welfare, administration and miscellaneous services	1
		Total	42
Total revenue	225	Total expenditure	230
NB: These figures pertain to the 1989 financial year only and do not include the accumulated debit balance on the General Fund as at 31 December 1988.			

Appendix B

BUDGET SUBMISSIONS FOR 1990 - RECURRENT EXPENDITURE

General administration

	Revised estimate 1989 (Rs.)	Draft estimate 1990 (Rs.)
Gross expenditure	12,980,000	15,160,000
Less revenue from staff housing rents	280,000	300,000
Net general fund expenditure	12,700,000	14,860,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of existing establishments and services plus the following new proposals:

	Rs
(1) Two additional administrative assistants to deal with expanding Committee workloads	80,000
(2) Five additional clerk/typists	100,000
(3) Installation of air conditioning in Municipal Hall (on lease-hire)	1,350,000
Total	1,530,000

Financial administration

	Revised estimate 1989 (Rs)	Draft estimate 1990 (Rs)
Gross expenditure	5,470,000	6,380,000
Less: Rents of shops and market stalls	2,870,000	2,980,000
Net general fund expenditure	2,600,000	3,400,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of existing establishments and services plus the following new proposals:

	Rs
(1) Operation of new area cash offices (staff and other charges) built in 1989	400,000
(2) Computer operators for property tax division	350,000
Total	750,000

Increases in rents from shops and market stalls are due to completion of new premises. Rents are charged according to the scale last revised in 1984.

Education

The revised estimate of expenditure for 1989 is Rs. 66,500,000. Estimates for 1990 should be based on the education plan drawn up in stage II.

Public health

	Revised estimate 1989 (Rs)	Draft estimate 1990 (Rs)
Gross expenditure	41,090,000	48,000,000
Less revenue: Abattoir fees	490,000	500,000
Net general fund expenditure	40,600,000	47,500,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of existing establishments and services, plus the following new proposals:

	Rs
(1) Operation of four new mass immunization centres (see capital estimates):	
Staff	160,000
Other charges	80,000
Vaccines	3,200,000
Total	3,440,000
(2) Operation of new health centre (built in 1989):	
Debt charges	600,000
Staff	250,000
Drugs and other charges	200,000
Total	1,050,000
(3) A 20 per cent increase in drug provision to overcome existing shortages at DMC health units	1,300,000
(4) Renewals fund contributions for ambulances (calculated on . a fleet of five vehicles with an average replacement cost of Rs 400,000 and running life of five years)	400,000
(5) Purchase of medical equipment	400,000
Total	6,590,000

Revenue is based upon the following fees:

Abattoirs: Rs 10 per head of cattle

Rs 4 per head of other livestock (revised in 1985)

Solid-waste management

	Rs
Revised estimate of expenditure 1989	18,960,000
Less: commercial refuse-collection fees	960,000
Net general fund expenditure	18,000,000

Estimates for 1990 should be based upon the plan for this service drawn up in stage III.

Roads and street lighting

	Rs
Revised estimate of expenditure 1989	33,000,000
Less: car parking fees	1,300,000
Net general fund expenditure	31,700,000

Estimates for 1990 should be based upon the plan for this service drawn up in stage III.

Fire protection

	Revised estimate 1989 (Rs)	Draft estimate 1990 (Rs)
General fund expenditure	5,000,000	5,750,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of the existing establishment and service, together with the following new proposal.

	Rs
Contribution to renewals fund for fire engines (calculated on three engines with an average replacement cost of Rs 1,200,000 and running life of six years)	600,000

Libraries

Revised estimate 1989 (Rs)	Draft estimate 1990 (Rs)
3,000,000	3,275,000

Explanatory note:

Increased provision in 1990 is to cover higher salaries and running costs of the existing establishment and service, together with the following new proposals:

	Rs
(1) One extra staff member per library to allow libraries to remain open in the evenings	65,000
(2) Restocking with purchase of 2000 books at an average cost of Rs 60	120,000
Total	185,000

Recreation

	Revised estimate 1989 (Rs.)		Draft estimate 1990 (Rs.)	
Parks expenditure	-	2,500,000	-	3,040,000
Sports centres	3,000,000		4,900,000	-
Less entrance fees	750,000	2,250,000	1,000,000	3,900,000
Zoological gardens	660,000	-	680,000	-
Less entrance fees	200,000	460,000	220,000	460,000
Grants to cultural associations	-	340,000	-	460,000
Net general fund expenditure	-	6,000,000	-	7,860,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of the existing establishment land services, plus the following new proposals:

	Rs	Rs
(1) Operation of new sports centre (completed in 1989):		
Debt charges	1,000,000	-
Staffing and other charges	800,000	1,800,000
(2) Grants to new amateur drama clubs	120,000	1,920,000

Entrance fees are as follows:

- | | |
|------------------------|--------------------------------|
| (1) Sports centres: | (Revised in 1982) |
| Annual membership | Rs 200 |
| Daily: Swimming | Rs 4 per adult, Rs 2 per child |
| Other sports | Rs 8 per adult, Rs 4 per child |
| (2) Zoological gardens | (Revised in 1984) |
| Daily: | Rs 4 per adult, Rs 2 per child |

Social Welfare and Miscellaneous

	Revised estimate 1989 (Rs)	Draft estimate 1990 (Rs)
Gross expenditure	2,050,000	2,200,000
Less community centre hire charges	160,000	160,000
Net general fund expenditure	1,900,000	2,040,000

Explanatory notes:

Increased provision in 1990 is to cover higher salaries and running costs of the existing establishment and services, plus the following new proposals:

		Rs.
(1) Operation of new craft centres for the physically handicapped:	Rs.	
Instructors	40,000	-
Materials	40,000	80,000

Slum improvement

A new Department is established with effect from I January 1990 to supervise slum-improvement schemes. Estimated expenditures for 1990 are:

	Rs
Salaries	200,000
Other charges	135,000
General fund expenditure	335,000

Appendix C

CAPITAL EXPENDITURE 1990 - DEPARTMENTAL SUBMISSIONS

	Rs
Education	
Per stage II financial plan	
Public health	
Construction of 10 mass immunization centres at Rs..1 million each	4,000,000
Construction of one additional health centre (in new suburb) - 1st phase	2,000,000
Replacement of three ambulances	1,200,000
Total	7,200,000
Solid-waste management	
Per stage III financial plan	
Roads and lighting	
Per stage III financial plan	
Fire	
One new fire station (for new suburb)	10,000,000
Purchase of radio equipment	1,000,000
Replacement of three fire engines	3,600,000
Purchase of two extra fire engines	2,400,000
Total	17,000,000
Libraries	
Construction of new library (for new suburbs)	1,000,000
Stocking of new library	400,000
Total	1,400,000
Recreation	
New parks (7 acres -land purchase and landscaping)	700,000
Construction of new football and athletic stadium	5,000,000
Construction of two new swimming pools (for new suburb)	8,000,000
Extension to zoological gardens	1,000,000
Total	14,700,000
Social welfare, administration and miscellaneous services:	
New area offices (i.e., zonal headquarters for DMC Departments, situated in new suburbs)	2,000,000
Extension to City Hall (to cope with expansion of DMC Departments and provide better facilities for Council members)	2,000,000
Additional staff housing	
2 grade I houses at Rs 900,000 each	

5 grade III houses at Rs 400,000 each	
40 grade V houses at Rs 100,000 each	7,800,000
Two new area cash offices	1,000,000
Total	12,800,000
Slum improvement	
1st Phase – improvement of 150 acres , (regularization of tenure, paving of access paths, drainage, lighting, security lighting, installation of communal toilets and standpipes, house electricity connections)	6,000,000

PART FOUR: FINANCIAL CONTROL

XVI. ACCOUNTING

Trainer's notes

This chapter is a simple introduction to accounting. It is designed to explain the basis of an accounting system to a non-accountant and to enable him or her to understand a standard local authority balance sheet.)

The chapter also describes the different levels of sophistication which an accounting system can include, from a simple cash book to a complex accrual system with capitalization of fixed assets. The point to be emphasised is the paramount importance of selecting a system which local authority staff can maintain accurately and up-to-date, and to avoid complexities which outrun this capacity.

The subject matter of this chapter is designed for straightforward classroom instruction using prepared examples, perhaps on an overhead projector. Something like three hours of classroom time is needed to ensure that candidates follow the processes described. To enliven this, the editor has on occasion opened the session by feigning sudden death and drawing up a personal balance sheet (e.g., unpaid salary as a debtor account, house value as a fixed asset, bank overdraft and outstanding mortgages as liabilities etc.). This demonstrates not only the ingredients of the balance sheet but also its basic purpose, i.e., the calculation of net worth as the residual balance of assets and liabilities accruing to his "widow".

A. Introduction

1. Every local authority needs a set of accounts which fulfil a number of purposes:
 - (a) Provide an accurate record of transactions;
 - (b) Ensure that all moneys passing through its hands are properly accounted for;
 - (c) Give up-to-date information on the progress of its budget;
 - (d) Give a true picture of its state of solvency.

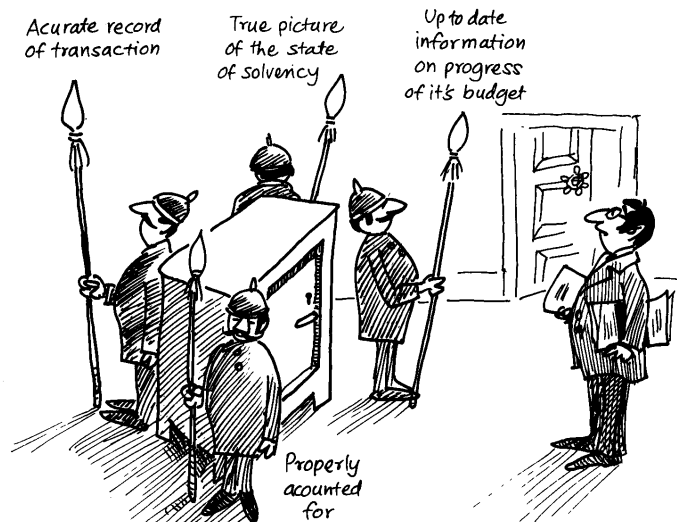
This chapter does not attempt to explain how the accounts should be kept. Its purpose is to describe the accounting system so that those with over -all responsibilities for municipal finance can understand what financial statements should be kept and interpret the information they provide.

The cash book

2. The most elementary accounting record is a cash book which shows all receipts and payments, both in cash and through the authority's bank account, and reconciles these with the current cash and bank balances. This needs to be balanced daily and reconciled with the bank's records at least monthly.

Ledger accounts

3. An authority also needs to keep track of its budgetary progress. It needs to know how much has been received under each item of income and spent under each expenditure item, both for budgetary control and for making the next years' budget. This information cannot easily be deduced from the cash book where receipts and payments under different items are arranged in chronological sequence. An authority, therefore, needs to keep an account for each revenue and expenditure budget item showing all receipts or payments under that item to date during the financial year and a running total. This is called a ledger account.



4. Not all financial transactions relate to the budget. An authority might advance money as a loan which is due to be repaid. It might, for example, lend money to an employee to buy a vehicle, if he or she needs it for official duties: this is not expenditure in a budgetary sense, since it will be repaid.

An authority might hold money on behalf of someone else, at least temporarily: it might hold the pension contributions for its staff pending their investment elsewhere; it might act as banker for community-development funds which belong to a neighbourhood group undertaking a voluntary project. It will need to keep a ledger account for each of these sets of transactions. The account for a loan, for example, will need to show the amount advanced, the repayments received and the outstanding balance.

Double-entry bookkeeping

5. Keeping a cash book and a set of ledger accounts means practising a double-entry system, i.e., every transaction has to be recorded twice -once in the cash book and once in the respective ledger account. Not all ledger transactions, however, involve cash. A loan repayment might be deducted from an employee's salary without cash passing hands. No cash-book entry will be made (at least in respect of the deduction: the net salary after deduction of the repayment might involve a cash-book entry), but two ledger entries are required:

- (a) A charge (or "debit") to the salary expenditure item;
- (b) A receipt (or "credit") to the advance account.

A "journal" entry may be used to transfer money between ledger accounts in this way without a cash transaction.

The balance sheet

6. A budgetary transaction is, in essence, permanent. Once a tax payment is received, for example, it belongs permanently to the authority and is not repayable to the payer. Once expenditure has been incurred on an employee's salary or a purchase of supplies, the money cannot be recovered. The "net worth" of an authority is the difference between its revenue and expenditure, often known as its general fund account balance. If this is not in surplus, i.e., if accumulated expenditure has exceeded accumulated revenue, the authority is basically in debt.
7. However, at any given moment, the authority's cash position will probably not reflect its real "net worth", because it is affected by temporary factors. It might be:
- (a) Inflated by deposits (or "creditors"), i.e., by sums it is holding for others;
 - (b) Reduced by Advances (or "debtors"), i.e., by loans to others not yet repaid.

The purpose of a balance sheet is to show the true position at a particular moment or at the end of a financial year. It is also to make sure that the cash and ledger accounts have been correctly kept, i.e., that they do balance. In a narrative form:

Cash and bank balances
+ Advances/debtors

- Deposits/creditors
= Net worth/general balance.

If the accounts balance properly, the general balance should equal the historic total of revenue minus expenditure.

8. An authority might not keep all its "liquid" assets in the form of bank and cash balances. Where resources are to be kept unspent for a substantial period - as a long-term reserve or for the eventual replacement of equipment, for example, - they might be invested in bonds or other interest-bearing outlets. Current assets might, therefore, include cash, bank balances and investments.
9. A further type of current asset is stocks of equipment, such as stationery or building materials, which have been purchased but not yet charged to a particular expenditure item. This occurs where it is economical to purchase goods in bulk to be used by several departments for different purposes and where it is impossible to charge the budget items accurately at the time of purchase. In such cases, expenditure is charged to a stores advance account. When the goods are allocated to a particular department, their cost is then debited to the appropriate budget item and credited to the stores advance account.
10. Bank accounts are often overdrawn. If this is the case, the bank balance should be shown, along with other creditors, on the liabilities side of the balance sheet.
11. An authority might decide to keep part of its revenue surplus aside for future expenditure. Examples might be a sinking fund to repay a loan which was subject to repayment in full on maturity or a renewals fund for replacement of vehicles or other equipment with a medium-term life. These are often known as provisions. Contributions to such funds would be charged to an expenditure item in the budget, and then credited to a ledger account for the fund in question.
12. All these balances would be brought together in a balance sheet which would (with variations in title) appear as follows:

Liabilities and surplus		Assets and deficiencies	
Current liabilities:			
Bank overdraft	100	Cash and bank balances	200
Creditors/deposits	150	Investments	500
		Debtors	150
		Stores account	50
Provisions			
Renewals fund	100		
General fund balance	550		
Total	900		900

Accruals

13. So far, we have described a system which is based upon cash transactions, i.e., revenue means taxes, fees etc. actually paid in cash; expenditure means salaries, invoices etc. paid in cash; advances means money lent to others in cash; deposits means money received and held on behalf of others in cash. This does not, however, present a full picture of an authority's financial position. At any given moment, there are revenues due which have not been paid. There are also commitments to payments which have not yet been made - orders for supplies which have not yet been invoiced, for example. It can be regarded as very misleading to show an authority as having a balance of, say, Rs 3 million when it has ordered but not yet paid for supplies worth Rs 2 million; it does not really have Rs 3 million "at its disposal".
14. An ideal accounting system would, therefore, work on what is termed an "accruals" basis. Revenue is shown as received as soon as it is due, i.e., as soon as it has been demanded; expenditure is shown as soon as it is committed, e.g., as soon as an order has been placed. The problem, of course, is that entering revenue and expenditure in the ledger accounts on an accruals basis does not balance with the cash transactions. The only way the ledger accounts can still balance with the cash position is by:
 - (a) Showing revenue due as a debt to the authority until it is actually paid;
 - (b) Showing expenditure committed as a debt by the authority until it is paid.

15. This means recording two sets of transactions at different points in time. For example:
- (a) When a property tax is demanded from A, the amount is credited to the property tax revenue item but debited (or charged) to a debtors account in the name of A. When A pays, the amount is recorded in the cash book receipts and credited to A's debtor ledger account;
 - (b) When school books are ordered from B, the amount is debited to an education expenditure item but credited to a creditor's account in the name of B. When the invoice is paid, the amount is recorded as a payment in the cash book, and B's creditor account is debited, i.e., reduced (or cleared altogether, as the case may be).

Again the double-entry principle is maintained. There must always be two balancing entries, either the cash book and ledger account or in two ledger accounts.

16. An accruals system obviously presents a comprehensive picture of an authority's accounts, but there are two problems. First, as soon as income is demanded, it is credited to the revenue item and, therefore, to the general fund/account balances. This is all right as long as it is safe to assume that it will be paid reasonably promptly, but, if there is significant default, the totals shown under revenue and in the general balance will be unrealistically inflated, and the debtor's account on the asset side of the balance sheet will also be inflated by what are essentially "bad debts", i.e., irrecoverable. The picture presented of the authority's financial position will be unduly optimistic and, therefore, less rather than more accurate. The second problem with the accruals system is that it is complex. The number of accounting transactions is doubled -in fact much more than doubled, since individual creditor's and debtor's accounts have to be opened for every supplier and contractor and every taxpayer. The chances of error and delay are multiplied, although less acute where accounting systems are computerized.
17. As a result, many systems of local government or individual local authorities do not adopt a full accruals system of accounting. There are, however, modified accruals systems which are widespread. These basically operate on a receipts and payments basis but modify the final accounts of an authority in two respects:
- (a) Any revenue due to an authority in respect of a particular financial year and either: (i) received after its end but before the closing of its books, or (ii) absolutely certain of payment, is credited to revenue and debited to a debtor account at the year end;
 - (b) Any expenditure committed but not paid at the year end is charged to expenditure and credited creditor accounts in the final accounts.

A modified system effectively includes accruals in the final accounts but not in the running accounts during the year. A simplified version is to not reflect accruals at all in the ledger account and balance sheet but to append a footnote to the balance sheet with a statement of unpaid bills etc.

Capital assets

18. It can be argued that the net worth of an authority is reflected not only in the balance of its revenue and expenditure but also in the value of its fixed assets -its land, buildings and permanent equipment. If this view is taken, the value of the fixed assets should be shown on the balance sheet of the authority. This means that, once land, buildings or permanent equipment are purchased or constructed, their value should be entered in a ledger account, and the total value of fixed assets should appear on the assets side of the balance sheet. This would then be reflected in the fund balances on the other "Liabilities and surpluses" side of the balance sheet. It is usual, however, to distinguish between the reserves accruing from revenue surplus over expenditure, i.e., the general fund/accounts balance, and those reflecting capital assets.
19. Many capital assets, however, are purchased with the help of a loan. They cannot, therefore, be shown truthfully or wholly as part of the "worth" of the authority until those loans have been repaid. If the value of fixed assets is shown on the assets side of the balance sheet, it is necessary to show on the liabilities and surpluses side two items:
- (a) Outstanding balance of loans;

- (b) Capital discharged (i.e., the net worth of the fixed assets to the authority after deducting the outstanding loans).

The value of land, buildings and equipment does not remain the same as at the time they were originally purchased or constructed. Equipment usually depreciates with age, as it wears out or becomes obsolete. Land usually increases in value, with inflation or market shortage. Buildings are variable; physically they depreciate with age, but market changes may increase their value.

20. Changes in value should, therefore, be reflected in the accounts through an annual revaluation. Increases or decreases in value would need to be reflected in adjustments both to the value of fixed assets and to the balancing value of capital discharged in the ledger and in the balance sheet.
21. If fixed assets are "capitalized", i.e., their value brought to account in the local authority's financial statements, the balance sheet described in paragraph 6 would be amplified as follows:

Liabilities and surplus		Assets and deficiencies	
Long-term liabilities		Fixed assets	3000
Loans outstanding	1000	Current assets:	
Current liabilities		Cash and bank	
Bank overdraft	100	balances	200
Creditors/deposits	150	Debtors	150
Provisions		Stores account	50
Renewals fund	100		
Balances:			
General fund	550	Investments	500
Capital discharged	2000		
Total	3900		3900

22. An alternative, narrative form would show this as follows:

Fixed assets (land, buildings and equipment)		3000
Current assets:	Cash and bank	200
	Investments	500
	Debtors	150
	Stores account	50
	Total	3900
Less: Long-term liabilities		
Loans outstanding	1000	1000
Current liabilities: Bank	100	100
	Creditors	150
	Total	2650
Less Provisions:	Renewals Fund	100
	Net resources	2550
+ Represented by surplus:	Capital discharged	2000
	General fund	550
	Net worth	2550

23. As with an accruals system, the inclusion of fixed assets and their net worth in the financial statements of an authority creates a comprehensive picture of its affairs but it also creates problems. First, it complicates the accounting process. Assets have to be valued at the time of purchase and then revalued; additional ledger accounts have to be kept with annual balancing adjustments in respect of revaluations. Secondly, the information presented can be misleading. In commercial accounting, fixed assets are very much part of the practical "worth" of a company (they can be sold and traded), but the capital value of its assets is rarely of much practical financial value to a local authority, unless it actually has land or buildings which are surplus to its requirements. The fact that an authority has a school worth Rs 500,000 does not mean that it can be sold to pay the teachers. Whether there is enough money to pay the teachers depends upon the relation of revenue to expenditure reflected in the general fund balance, and a large "capital discharged" figure can give a false picture of financial well-being. As with

accruals systems, the capitalization of fixed assets is an element to add to an accounting system, if all authority has the skills to account for it accurately and to understand its real significance in its financial statements.

Conclusion

24. Accounts are little use, unless they balance and are up-to-date. Unless accounts have these two features, a local authority cannot be confident that its moneys are being handled properly and cannot act in time to correct financial deficiencies. It follows that local-government agencies should choose accounting systems which are within their capacity to keep up-to-date. It is better to use a simple system which can be kept up-to-date than a complex one which gets into arrears.

XVII. BUDGETARY CONTROL

Trainers' notes

This is the first of three chapters dealing with financial control; it focuses specifically on budgetary control. The first three sections deal with the purposes of budgetary control, choices to be made over the location of responsibility for budget execution and budgetary adjustment. It argues for as much delegation to operating departments as possible.

The following sections cover the detailed processes of controlling revenue and expenditure respectively. This is followed by an introduction to the process of budget monitoring, comprising profiling and variance repolling (this process is illustrated by the exercises in chapter XX). These deserve emphasis as they may be new to even experienced participants.

Two points are worth emphasis. First, it is essential to monitor progress of revenue and expenditure together if viability is to be maintained; this harks back to the point illustrated in stage I of the case study, i.e., that budgetary control systems usually concentrate on not overspending approved budgets and ignore the danger arising from under collection of revenue. Secondly, the actual levels of revenue and expenditure recorded at stages during the budget year need to be compared with expected month- by-month profiles which take account of fluctuations due to seasonal factors, and irregular, lumpy commitments (such as loan or contract installments).

This chapter again requires basic classroom instruction lasting, perhaps, two hours, to ensure that the processes are understood. There is room, however, for considerable participant discussion based, for example, on comparison of practices and experience relating to locations of responsibility, degrees of delegation of expenditure sanction and virement, and budgetary monitoring and correction.

Purposes of budgetary control

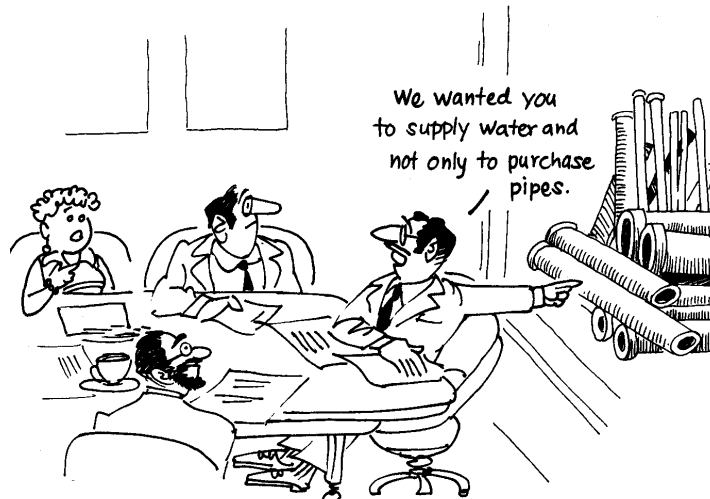
1. Part III was concerned with the formulation of a budget; this chapter is concerned with its implementation. Budgetary control has a number of purposes:
 - (a) To ensure that the authority stays solvent, i.e., that expenditure does not exceed its revenues and reserves;
 - (b) To ensure that revenue is collected and money spent legally, i.e., that it conforms with the limits authorized through the approval of the budget;
 - (c) To ensure that the members of the public meet their legal obligations to pay for public services through taxes and charges;
 - (d) To ensure that money is spent efficiently;
 - (e) To ensure that money is handled honestly.

Responsibility

2. Budgetary control can only be effective if personal responsibility for collecting from each revenue source and incurring expenditure under each budget item is clearly identified. After a budget has been approved, it is normal to issue some form of warrant to those authorized to incur expenditure, specifying the items of expenditure under their control and the approved provision under each. The degree of delegation of authority to incur expenditure

varies between local-government systems and between individual or local authorities. There are roughly three patterns:

- (a) The chief executive (the mayor, commissioner, Municipal manager etc.) or the financial manager (treasurer, director of finance, chief accountant etc.) has to authorize all expenditure and makes all payments; operating departments have to submit requisitions to him/her when they want to hire staff, order supplies etc.



- (b) The operating departments authorize expenditure within budgetary limits, but the central treasury makes all payments;
- (c) The operating departments authorize expenditure within budgetary limits and make payments.

A variation on (b) or (c) might require the approval of the chief executive, financial manager or a committee for items of expenditure above stated amounts of money.

Box 15

The Municipal Corporation of Greater Bombay is one of the world's largest local governments, serving a population of 9.5 million and managing a wide range of services. With the help of computerization, the Corporation has adopted a four-digit coding of its budget which permits disaggregation to the fourth level of management, e.g., an assistant engineer responsible for a single service in one Municipal zone. As a result, operating managers at this local-area level and of middling seniority have a clear budgetary allocation with which they can plan and manage their work, and for which they are personally accountable. Although relatively new, this system has considerably reduced congestion and delays in the authorization of expenditure with benefits to staff effectiveness and motivation. If anything, budgetary control has been strengthened rather than weakened by the reform.

- 3. Clearly, much depends upon the size of the authority and the ability and trustworthiness of its staff. Generally, it is best to delegate authority to incur expenditure to operating departments within a voted budget, since:
 - (a) It helps the department to plan its work;
 - (b) It avoids delay in undertaking the departments work;
 - (c) It places responsibility squarely on the department to keep the scale of its commitments within the money voted to it.

Centralized control can lead to irresponsibility, since the operating departments feel no obligation to be careful about the requisitions they submit, and the chief executive or treasurer lacks knowledge and time to scrutinize the bids he/she approves.

4. The same principles of delegation apply within operating departments. In a large authority, departments might have zonal branches which effectively supervise operations such as road maintenance or refuse collection in their particular areas of the Municipal. There might be other clear operational sub-units, such as schools, sports centres or large markets. There are considerable advantages in delegating responsibility for the control of expenditure to sub-units, so that they can plan their operations and be held fully responsible for the efficient use of resources.

Budgetary adjustments

5. Some variation in the budget is inevitable during the course of the year. It might be necessary for a spending department to seek an absolute increase in the amount of money allocated to it; this is usually known as a "supplementary estimate". Alternatively, it might be possible to reallocate money, so that overspending on one item is offset by under spending on another; this is known as virement. Supplementary estimates almost invariably require approval by the authority's chief executive or treasurer and, often, by its council, since they affect the overall budget and financial prospects, but discretion is often given for departments to authorize virements, perhaps within fixed financial limits. This discretion again speeds up work and encourages departments to accept responsibility for matching unexpected commitments in one direction with economies in another.

Revenue control

6. Assessment of the amount of taxes, fees or charges to be paid by individuals must be conducted strictly and impartially. The aim is to charge the exact amount due to the authority - neither more (to swell the collections) nor less (out of favouritism or leniency). The assessor is usually acting in a judicial rather than a money-raising capacity, i.e., he or she is applying a given set of rules to the situation of an individual payer. Random checks are necessary to verify the work of individual assessors and also the information supplied to them by the people being assessed.
7. Many taxes or charges include some provision for remission or exemption. These often benefit old people, schoolchildren or the physically handicapped, and, sometimes, those in low-income groups. Again, the rules must be strictly and impartially applied. Those responsible for granting exemptions must be aware of their underlying purpose; for example, poverty due to a physical handicap might not be a good reason for exempting a taxpayer, but the physical handicap itself might not be a sufficient cause. Again, it is necessary to make random checks on the award of exemptions and remissions.
8. Progress in collecting revenue must be continuously monitored. A strict timetable must be set for each tax or charge, stipulating the period within which payment is due, intervals at which reminders are automatically sent to defaulters and the date at which legal proceedings or other sanctions (e.g., cutting off a water supply) will be taken, again automatically. In the case of taxes and charges for which people have a regular continuing liability, it is necessary to keep an account in respect of each payer, showing the amounts due, amounts paid and any outstanding balances due to the authority. These must be kept up-to-date, if payment is to be enforced strictly.
9. Apart from instituting a regular, phased procedure applying to each individual liability, general progress checks are needed. Comparisons of the total amount or the percentage collected with a similar stage of previous years are helpful guides. If collections are falling significantly behind normal experience it will be important to verify the reasons as quickly as possible. The reason might be a decline in administrative effectiveness, requiring a general tightening up. Alternatively, it might be due to an external economic disturbance, which means adjusting the budgetary estimations as a whole.

Expenditure control

10. Whoever is responsible for authorizing expenditure on a particular budget item must have regular and up-to-date information on the total amount spent and, therefore, the balance still available for commitment. This means that expenditure must be brought promptly to account in the authority's ledgers and that statements of spending to date must be provided regularly and promptly to those controlling expenditure on each item. Although an operating department might keep its own records of the expenditure it has authorized, it is important that this be reconciled regularly with the records in central accounts. It is, for example, important that departments should be aware of charges that are made to their votes without their prior authorization, such as central overhead charges, debt servicing, salaries or internal recharging.
11. Unless the local authority is operating a full accrual system of accounting (which is rare), ledger accounts might only reflect payments which have actually been made. The total of such payments is not, however, an adequate basis for calculating the amount "unspent" and available for fresh commitment. This is due to the usual time-lag

between a decision to incur expenditure, e.g., by ordering supplies, and the consequent cash payment. It is, therefore, necessary for those authorizing expenditure to keep an accurate record of the commitments they have undertaken, so that they know the true unspent balance available to them. The cost of goods or services, for example, should be recorded as expenditure the moment they are ordered, rather than when the bill is paid, since the order effectively uses the money involved.

12. Before payments are made, they must be checked to ensure that no errors or fraud are involved. For example, wage and salary sheets need to be checked against establishment records, official wage levels and, often, against the physical presence of the labour force. Payments for goods need checking against agreed contract prices and stores records verifying receipt and location. Various procedures are used in different authorities, e.g.:
 - (a) Payments have to be authorized by two people, one from the spending department and one from the treasury (possibly the internal audit section);
 - (b) Cheques have to be signed by two people;
 - (c) Wage and salary payments are made by a different section from that preparing the wage sheets etc.
13. Expenditure may be within approved limits and honest but still wasteful. It is the duty of the treasury (usually with the help of internal auditors) to check on the efficiency of the authority's expenditure. Examples of the sorts of issue that often need to be investigated are:
 - (a) Comparing costs of direct building and repairs with the use of contractors;
 - (b) Examining the running costs of and utilization of vehicles;
 - (c) Comparing the costs of means of reproducing documents - printing, photocopying, cyclostyling etc.

Chapter XIX discusses these processes in detail.

Monitoring revenue and expenditure

14. Revenue and expenditure levels under each item need to be reviewed regularly, to ensure that they conform to legal authority and that solvency is maintained. One can only judge progress at any point in the budget year, however, against an expectation of what levels of revenue and expenditure should be at that stage, if the budget is being implemented "according to plan". In some cases one would expect an even pattern of collection or spending throughout the year. This might apply, for example, to staff salaries (assuming all salary increases date from the beginning of the year) or to collection of rents on permanently leased shops or market stalls. However, in many cases, such patterns are either seasonal or lumpy. People might be required to pay property taxes or license fees within so many months; market-fee income might be higher than normal during a harvesting season or surrounding an annual festival. Annual or biannual payments, such as insurance premia or debt-service charges, might lead to particularly heavy expenditure in certain months.
15. Budgetary progress can only be effectively monitored if such irregularities in the expected pattern of revenue collection and expenditure are charted. This means drawing up a profile of collection and expenditure at the beginning of the budget year. A sample profile might be as follows:

Budget item: Road maintenance. Total approved expenditure: Rs 2 million (Rs.) thousands												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Expected expenditure	120	120	260	120	120	120	130	120	270	250	130	130
Total expected expenditure to date	120	240	500	620	740	860	990	1120	1390	1740	1870	2000
Percentage of annual budgeted expenditure	6	12	25	31	37	43	49.5	56	69.5	87	93.5	100

The high level of expenditure from July to December might be due to the timing of the annual pay increase. Exceptional levels of spending in March and September might be based upon installments of debt charges, while insurance premia and annual licensing fees for road machinery might be paid in October.

16. The amount actually spent at the end of any particular month can then be compared with the profile, to see whether any abnormality is occurring. Taking the example in the last paragraph, if expenditure at the end of six months was around Rs 1 million, i.e., 50 per cent of the vote, it might easily be regarded as running at a "safe" level. However,

comparison with the profile shows that such a level creates serious dangers of overspending, since more than 50 per cent is required in the second half of the year, to cope with the exceptional commitments in September and October.

17. Regular reports of budgetary progress are required, to ensure that no serious deviations from the budget are taking place or that corrective action is taken. A variance analysis will provide senior executives with figures the significance of which can be grasped quickly. This compares actual collections and current expenditure at a particular date with the level forecast for that stage of the year, and then shows a simple plus or minus variation on the forecast, e.g.:

	Forecast expenditure at 31 March	Actual expenditure at 31 March	Variance
General administration	1,500,000	1,600,000	+100,000
Road maintenance	3,700,000	3,500,000	-200,000
Public health	2,600,000	2,850,000	+250,000
etc.	etc.	etc.	etc.

Budgetary correction

18. Regular use of profiles and variance reports, as just described, should indicate items of revenue where serious shortfalls are likely or items of expenditure where overspending is likely, if current trends are sustained. When such trends become apparent, immediate investigation is needed to determine the cause and see what corrective action, if any, is needed. Investigation might throw up problems which can be readily corrected; for example delays in invoicing for revenue due or excessive ordering of supplies. In such cases, it should be sufficient to warn the department responsible of the need for corrective action. The important element is being aware of the trend early enough in the budget year for such action to be effective. Investigation of revenue shortfalls or overspending might reveal causes which are unavoidable. Market-fee collection might be depressed because of a poor harvest; expenditure on drugs might be running high because of an epidemic.
19. Two questions then arise. First, in terms of overspending, is there need for immediate budgetary adjustment to authorize extra provision, preferably by virement, otherwise by supplementary estimate? Secondly, and more important, do trends in revenue collection and expenditure suggest that the budget is fundamentally off-course and that overall expenditure is likely to exceed revenue? If such a deficit does seem likely, the next question is whether it can be covered by reserve balances or is going to land the authority in serious debt.
20. If a serious deficit is in prospect which cannot be covered by reserves, corrective action is clearly necessary. Again, the important thing is to be aware of the danger early enough to take action. Various steps can be considered, e.g.:
 - (a) Postponing the start of capital development projects (though this may only help if they are financed by general revenue, not from some specific grant or loan);
 - (b) Freezing staff vacancies;
 - (c) Subjecting all purchases of supplies and equipment to central scrutiny and approving only urgent needs;
 - (d) Restricting service provision, e.g., early closing hours for libraries or parks.

None of these steps are desirable, but they may be essential if the financial crisis is to be averted. It is advisable to put the responsibility on the operating departments to make the economies, since they are likely to know best where potential savings lie.

XVIII. MISCELLANEOUS FINANCIAL CONTROLS

Trainer's notes

This chapter is virtually a checklist of control processes, other than budget execution, which financial managers have to

exercise. It again requires about two hours of classroom instruction. It is likely that problems of tendering and contract management will occasion most comment and exchange of experience.

A. Introduction

1. This chapter deals with a number of aspects of financial control which are not directly related to the execution of the budget. The term "treasurer" refers to the senior officer of a local authority responsible for financial management.

Control of advances

2. Local authorities frequently advance money, to their staff, to their customers or to the public at large, which they expect to recover. Examples are:
 - (a) Credit to farmers or businessmen to stimulate production;
 - (b) Loans to employees to buy vehicles or houses;
 - (c) Deferred-payment terms to people buying the authority's goods or services.

Because these advances are recoverable, they are not regarded as expenditure and, often, not closely controlled. However, if they use the whole of the authority's cash, they might actually involve expenditure, if it involves borrowing cash (e.g., by taking a bank overdraft or issuing bonds) at a higher rate of interest than is charged to beneficiaries. If the advances are made at a rate of interest below that prevailing in the general market, the recipients are also being subsidized, in economic terms, out of public funds.

3. Advances, therefore, need careful control in three directions. First and most obviously, for strict control over repayments, these should be secured by banker's order or direct deduction from salaries. Procedures must be developed to spot default instantly and take action. Secondly, care must be taken that the overall level of advances does not exceed the authority's capacity. Maximum limits need to be imposed upon the overall level of advances at any given time and also upon the amounts of any individual advance. Thirdly, the conditions upon which advances are made need strict control, i.e.:
 - (a) The purpose;
 - (b) The criteria;
 - (c) The rates of interest charged;
 - (d) The length of grace periods (if any);
 - (e) The duration of the advance.

These conditions need to be compared with those available to borrowers on the open market; public organizations should only accord favourable treatment (if at all) to those deserving special consideration for reasons of social equity.

Reserve funds and investments

4. The purpose of reserve funds has been set out in chapter XIV. Reserve funds may be held:
 - (a) As working balances;
 - (b) As long-term "insurance" against unexpected expenditure or revenue shortfalls;
 - (c) As provision for renewal of plant and equipment;
 - (d) As provision for retirement benefits for employees;
 - (e) As accumulated funds for future capital investment;

The level of these funds clearly needs regular review, particularly when the authority is drawing up annual budgets. Care must be taken in interpreting the calculation of these funds shown in the balance sheets. There is a danger that the value of reserves can be inflated in the balance sheet, because the "assets" making up the reserves include either debts to the organization, which are unlikely to be recovered, or buildings, equipment etc., which are not really saleable.

5. Reserves are normally backed by a money surplus which is invested. Public-sector investments are normally in:
 - (a) Bank-deposit accounts -suitable for day-to-day. very short-term fluctuations in balances;
 - (b) Treasury bonds -suitable for balances available for short periods (normally 3-6 months).

- (c) Long-term gilt-edged securities - suitable for long-term reserves, superannuation funds, renewals funds etc.

Generally speaking, the longer the term of the investment, the higher the rate of interest. It is, therefore, necessary to select the type of investment with strict attention to the length of time before it is likely to be cashed in.

Staff establishments and emoluments

- 6. Most local authorities operate tight control over staff establishments and emoluments. Budgets prescribe not only the overall amounts to be spent on salaries and wages but also the numbers of staff to be employed in each post and grade and the salary scales, allowances etc. appropriate to each. Decisions on the appointment, grading, promotion etc. of individuals to posts are also hedged by divisions of responsibility and other safeguards. Controls in this area are particularly tight, because it is especially vulnerable to corruption and extravagance.
- 7. The treasurer is responsible for ensuring that departments adhere to the budgetary levels and scales and the establishment procedures governing staff employment and emoluments. It is, also, necessary to keep a careful watch on the utilization of the workforce. Salaries and wages are normally the largest element of expenditure and, therefore, most liable to waste of public funds.

Purchases of goods and services

- 8. Control is necessary over the purchase of goods and services, to ensure that the local authority secures the best available balance of quality and cheapness, reaps the potential savings of bulk purchase and curbs corruption on the part of its members and staff. For these reasons, it is normal to “tender” for large-scale purchases of goods or services, i.e., to invite competitive bids from a range of potential suppliers. Such procedures usually govern:
 - (a) Supply of particular materials which are regularly acquired over the course of a year (e.g., cement, stationery, petrol);
 - (b) Undertaking of works (e.g., building or road construction) or provision of any service (e.g., architectural design or vehicle repairs) costing more than a fixed amount of money;
 - (c) Provision of insurance cover;
 - (d) Sale of assets (e.g., land, buildings etc.) other than those regularly available to the public at fixed prices or charges.

It is normal to publish a notice inviting tenders. This must have wide publicity and provide adequate notice. (There is a danger of collusion so that only one supplier favoured by officials gets the opportunity to submit a tender). It is normal to require submission of bills of quantity, in respect of large construction contracts, and of samples, in the case of supply of goods. Tenders should also specify the period within which the goods can be delivered or the works and services completed.

- 9. Authorities usually establish special bodies, e.g., boards or committees, to award contracts to tenderers. The customary rule is that contracts should be given to the applicant quoting the best price. There may be reasons for deviating from this norm, particularly where there are doubts over quality or reliability, but it is important that the reasons for not accepting the lowest or highest tender, as the case may be, are clearly recorded. Full tender procedure might be inappropriate for small, irregular purchases of goods or services, but there might still be a requirement that the officials concerned should get more than one quotation (usually three) before deciding on the purchase.
- 10. Awards of tenders must be widely publicized within the authority, with details of prices, specifications and maximum periods for delivery. This is necessary to ensure that all departments know where they should obtain goods and services and on what conditions.
- 11. Contracts might have to provide for variation in the amount of work to be done or goods to be supplied, the length of time involved or the price to be charged. This applies particularly to large-scale construction contracts or the

supply of goods subject, for example, to tax changes. Any provision for variations in price should, however, be geared to review at fixed intervals and related to official indices.

12. Contracts frequently include penalty clauses covering delays in performance. Construction contracts usually provide that a percentage of the contract sum be withheld for a period (e.g., six months to a year) as a guarantee for repair of any defects in the work which may appear after completion.

Maintenance of stores and equipment

13. The treasurer has a responsibility to ensure that stores and equipment are properly looked after. This involves adequate storage, maintenance of records showing their use and location, and security from theft and damage. Inspection is required regularly, to check that stores and equipment can be located and are in good condition. A distinction has to be made, in this respect, between durable and disposable goods, though some audit checks are needed on the rate of consumption of disposable commodities. Procedures are necessary for inspecting equipment and recommending disposal of that which has reached the end of its useful or economical life.
14. Advance bulk purchasing of goods held regularly and in quantity has clear advantages. It reduces delay in obtaining supplies and should earn some reduction in unit cost. There are disadvantages, however. Cash is converted into stores, with loss of interest; stores held over a long period can deteriorate or become obsolescent, and the storekeepers, watchmen and space all cost money. A balance has to be struck between these considerations, and quantities ordered should relate to a high expectation of use over a reasonably short period of time.

Insurance

15. The treasurer is responsible for deciding on and arranging insurance cover of the authority's assets and liabilities. This can include:
 - (a) Insurance of property (e.g., buildings, plant, vehicles, cash) against loss, theft, damage, or destruction;
 - (b) Insurance against legal liability to employees or third parties arising from accident or negligence.

Insurance cover might be mandatory or discretionary. In some cases, the law requires the authority to obtain insurance cover, e.g., for its vehicles. In other cases the treasurer will have to weigh up the costs of the cover against the risks. If, for example, the authority is located chiefly in one or two large buildings, insurance against fire etc. will probably be justified; but, if it owns a large number of small and scattered buildings, it might carry the risk itself, since damage would only affect a small percentage of the total property. One important but often neglected requirement is to see that all officials using their own vehicles on business have adequate and current vehicle insurance cover.

Management of cash

16. Even though an authority budgets to balance revenue and expenditure over the course of a period (usually one year), there will always be temporary imbalances between cash coming in and going out. At some periods, cash receipts from taxes, sales, recoveries of debts etc. might be well above the average rate, and cash surpluses will build up temporarily. At other times, revenue might lag behind expenditure or abnormally large lump-sum payments might be due (e.g., on contracts or external debt service), and temporary cash shortages might occur.
17. It is important that the treasurer foresee and plan his cash flow. On the one hand, it is undesirable to accumulate large cash surpluses in safes, current accounts etc., because they pose a security risk and could earn substantial interest if invested. On the other hand, the authority must have arrangements to cover its obligations during temporary periods of cash shortage by bank overdrafts, bond issues or other forms of borrowing.
18. It is advisable, therefore, to draw up a month-by-month (or even week-by-week) estimate of cash receipts and outgoings which will be based upon the budget but will allow for seasonal variations in the flow of income and expenditure, gained both from past experience and from knowledge of when exceptional lump-sum transactions are due. This will enable the treasurer to see how long any bank surpluses are likely to last and invest accordingly, or, alternatively, to arrange borrowing in advance to cover temporary cash deficits.

19. It is sometimes thought to be wrong in principle to have a bank overdraft. This is not the case. If a cash deficit is confined to a few months of the year, it will pay to invest working balances and incur a temporary overdraft, if the interest received over the full course of the year exceeds the interest paid on an overdraft for a short period.
20. The treasurer is also concerned with the day-to-day cash balances held within the authority. Since they are at risk and are also unproductive in terms of interest, regulations are required to ensure that sums kept in hand are at a minimum, and any excess promptly banked. The authority should stipulate the maximum sum which can be held at any cash office at a time.
21. Cash balances represent a temptation, and there must be strict precautions against embezzlement. These normally include the following:
 - (a) Daily reconciliation between receipts and payments and the balance in hand, checked by an official other than the cashier (and not the same official each day);
 - (b) Reconciliation at least monthly, between receipts, payments, cash balances and bank statements;
 - (c) Issue of receipts for all cash income, with counterfoils in case of sums which are not at a fixed level;
 - (d) Frequent surprise checks on cash books and balances;
 - (e) Opening of mail by two people and immediate recording of any cash remitted.

XIX. AUDITING

Trainer's notes

This chapter provides a detailed description of auditing. It deals with both internal and external audit, and both probity and management (or efficiency) audit.

It may be best to cover this subject by inviting an auditor to make a guest presentation after participants have read the chapter. There should be experience to exchange particularly on the prevention of fraud: e.g., over payrolls or contract performance. It would be particularly valuable to focus discussion on the closing section on value-for-money audit and invite participants to consider what indicators could be used to measure the efficiency of the services for which their urban authorities are responsible.

What is audit?

1. The auditor has traditionally been involved in the checking of financial transactions. In such cases the auditor would check on the work of anyone who has some involvement with accounting records, money or valuable goods - for example, a stock-keeper, storeman, debt collector or cashier. This type of auditing has traditionally been referred to as "probity auditing".
2. The auditor is also likely to be involved, these days, in examining the way management utilizes the resources of the organization. He or she will examine the structure of the organization, the way work is organized and the scope of that work, to determine whether the organization is spending public money in an economic, effective and efficient way. This type of auditing is frequently referred to as "management auditing" or "value-for-money auditing".

Difference between internal audit and external audit

3. The main purpose of audit is to protect public money. To ensure this, part of the audit must be carried out by some organization which is independent of the local authority. This is known as "external audit", and most public organizations are required by law to have an external audit carried out. In some cases, the external auditor will be a commercial firm of accountants, but, traditionally, it will be part of central government, e.g., the government auditor general, or part of a ministry, e.g., the ministry responsible for local government. In addition to the above requirement, some local authorities directly employ their own auditors. They are known as internal auditors and are normally responsible to a chief executive or chief financial officer.

4. It is important to recognize the difference between these two types of audit, since although many of the techniques used will be the same, the emphasis might be different. The external auditor has to check that the final published accounts of the authority give a fair picture of the affairs of the authority. The internal auditor has no such responsibility and he will be concerned with preventing and detecting mistakes and fraud, e.g., stealing goods, not collecting the correct tax revenues, ensuring conformity with the budget approvals and making sure that the local authority is efficient and giving good value for money. This work can be regarded as complementary to that of the external auditor.
5. Because internal auditors are employed by the authority, the audit is taking place all the year round; this is known as a "continuous audit". The external audit, however, usually takes place once a year, just after the accounts have been completed, and is known as a "final audit" or "completed audit". Sometimes, there will have been a visit by the external auditors before this, to do some of the work, and this is known as an "interim audit".

External audit

6. The duties of external auditors may be summarized as follows:



- (a) Examine, inquire into and audit the accounts;
 - (b) Satisfy themselves that all reasonable precautions have been taken to safeguard the proper collection of and accounting for moneys payable to the authority and the assets of the authority.
 - (c) Satisfy themselves that the laws and regulations relating to the collection and payment of moneys by and to the authority have been duly observed;
 - (d) Satisfy themselves that all expenditure in the accounts of the authority is supported by sufficient evidence, i.e. authority, vouchers and proof of payment.
7. In carrying out these duties, the external auditor would specifically check for the following irregularities:
 - (a) Proper books and records not kept;
 - (b) Insufficient evidence of payment or authority to pay for significant items of expenditure;
 - (c) Expenditure incurred but not in the budget estimates;
 - (d) Insufficient precautions taken to safeguard the assets of the authority;
 - (e) Insufficient safeguards taken to ensure all money due to the authority is collected;
 - (f) Separate funds or accounts required by law not kept;
 - (g) Non-repayment of loans due to be repaid;

- (h) Grants received incorrectly spent;
 - (i) Unsatisfactory internal control;
 - (j) Auditors' requirements not met, e.g., explanations not available, books not available;
 - (k) Failure to show in the accounts any information required by the law.
8. Once the external auditors have completed their audit it is normal for them to issue an audit report. In many countries, this is required within a set period of the end of the financial year. In this report, the auditors will indicate whether "the balance sheets and accounts reflect a true and fair view of the financial position of the authority and its transactions and of the results of its trading". They will also be expected to report on "any material loss or deficiency, whether resulting from the misconduct or of misappropriation by any person, or any other matter arising out of the audit which he considers to be of importance or special interest".

Internal audit

9. Internal audit may be defined as follows:

An internal audit is a review of operations and records, sometimes continuous, undertaken within a business by specially assigned staff. On accounting matters, the main objective of an internal audit is to assure management that the internal check and accounting system is effective in design and operation. Two essential features of an internal audit are that it should operate independent of the internal check and that, in no circumstances, should it divest anyone of the responsibilities placed upon him.

10. Internal control and internal check will be discussed shortly, but, briefly, internal check is the arrangement of work between employees, so that the work of one person automatically acts as a check on the work of another. Internal audit should not be part of the internal check and each employee is still just as responsible for his work as if internal audit did not exist. What internal audit should do, however, is to make sure that the systems of internal check are working and are adequate.
11. The objective of internal audit may therefore be summarized as follows:
- (a) To keep the accountancy records in all departments of the authority under review and ensure that these are accurate, complete, up-to-date and suitable for the purpose;
 - (b) To ensure that possibilities of fraud, error and loss are reduced to a minimum, by installing proper systems of internal check, by adherence to accounting instructions and by compliance with financial regulations where they are in force;
 - (c) To assist management by constant examination of financial procedures, to ensure that they remain adequate for the purpose and that this purpose remains valid.
12. From all the above, it can be seen that internal audit does not form part of the system within an organization but works outside the system constantly reviewing and checking. It is very common for certain routine control functions; for example, the inspection of bills before payment or control of stationery, to be sited within the internal audit section for convenience. However, it should be remembered that this sort of function is not internal audit by the strict definition of the term and the procedure can lead to delays in processing documents. The involvement of audit would normally be in designing the internal control system and periodically checking that it is being adhered to.
13. The responsibility for internal audit has traditionally been with the chief financial officer (CFO) of an organization. This is because:
- (a) The CFO has the responsibility for the accurate recording of financial transactions and control of assets, and so needs to ensure that the extra protection afforded by internal audit is as strong as possible;

- (b) In practical terms, the CFO is probably the only chief officer who has the expertise to direct the internal audit section. No other chief officer would have the necessary financial knowledge and expertise;
 - (c) Internal auditors must themselves be trained and experienced accountants, in order to understand the financial records and systems. If the internal audit section is within the department of the CFO, staff can be moved from financial accounting posts to audit posts and back again, thus ensuring a high standard of financial training and expertise. Rotation is also important as a precaution against corruption and abuse of the financial control systems.
14. There are, however, one or two difficulties about siting the internal audit section within the department of the CFO. If the internal auditors are protecting public money on behalf of taxpayers, perhaps they should be independent of the CFO who, after all, carries out very large financial transactions. If, for example, internal auditors find something wrong with the CFO's department, perhaps even a fraud concerning the CFO himself, they might have difficulty in finding someone to report it to. One way around this problem is to make the internal audit section ultimately responsible to the chief executive or to allow the internal auditors to report to him or, even, directly to the Council or one of its committees, as happens in a number of Indian municipalities. In general, though, the vast majority of internal auditors report directly to the CFO and rely on financial regulations, internal control systems and the external auditor to project themselves from any irregularities within the CFO department.

Internal control and internal check

15. Internal control is the cornerstone of audit work. The following definition of an internal control system shows precisely why internal control is important.

An internal control system is the whole system of controls, financial and otherwise, established by management in order to carry on the business of the organization in an orderly and efficient manner, ensure adherence to management policies, safeguard the assets and secure, as far as possible, the completeness and accuracy of the records.

In other words, office procedures should be designed to reduce opportunities for fraud and error, for example, to have work so divided between officers that an error in the work of one would emerge in the work of another.

16. The following are examples of the types of control that should exist in a system of internal control:
- (a) *Structure.* The structure of the organization should be clearly set out in writing, so that every member of staff has a clearly defined list of duties and responsibilities. Included should be the limits of authority for every member of staff and instructions for re-arrangement or delegation of duties in the event of members of staff being absent. The structure should also indicate the responsibilities for promoting, hiring and firing, and the responsibilities for training and supervision. If all members of staff know exactly what is required of them, there can be no excuse for failing to carry out their duties.
 - (b) *Internal check.* This can be defined as "checks on day-to-day transactions which operate continuously as part of the routine system, whereby the work of one person is proved independently or is complementary to the work of another, the object being the prevention or early detection of errors and frauds." A good example of internal check in operation is in some large stores where, instead of paying cash to the sales assistant for goods, payment is made to a separate cashier. As a general rule, internal check separates authorization and initiation of the transaction from custody of the assets involved and from documentation and recording of the transaction. Of all features of internal control, internal check is probably the most important.
 - (c) *Authorization and approval.* The system should always require checks to be made of supporting documents before action on the next stage of the system. For example, no cheques should be written before examining the authority to pay, no invoices should be passed for payment without a suitable person authorizing them.
 - (d) *Acknowledgement of performance.* Where the system requires an officer to check or examine something, for instance, a clerk inspecting an invoice before payment or a storekeeper checking that stock agrees with his stock records from time to time, it is important that something is done by that officer to put it on

record that he has carried out the check. This can be done in the form of a rubber stamp or a signature, as long as it is traceable back to the officer who produced it.

- (e) *Protective devices.* These must be utilized to provide physical protection of assets. These will include:
 - (i) Safes for storage of cash and other valuables;
 - (ii) An adequate system of recording receipts, e.g., cash tills with some form of till roll, to enable a check to be made of the total amount entered in the till and the amount of cash in the till at the end of the day;
 - (iii) Physical security of premises for the protection of valuable stock and sensitive records.
- (f) *Review and amendment of the system.* These are necessary because, however well the systems of an organization are designed, they will not be effective unless they are carried out properly and constantly kept up to date. Management must also make sure that the systems themselves do not over-extend the administrative functions of the organization.

Systems audit

- 17. One approach to auditing which has achieved prominence, is the system audit. This has three basic stages, viz.,
 - (a) Determine the system and record it;
 - (b) Evaluate the system;
 - (c) Test the system.

The normal method of documenting a system is by talking to all the people involved with it and documenting it by means of flowcharts, internal control questionnaires (ICQs), staff diagrams, notes and samples of forms and records used. The description of the system should be detailed and capable of being understood by other auditors.

- 18. Evaluation of the system places the greatest test on the auditor's experience, intelligence and common-sense. He must examine places where he would expect internal control to exist and try to discover ways in which the system could allow errors or fraud.
- 19. Finally, the transactions within the system have to be checked. In following actual examples through the system, the auditor is specifically looking to see whether or not officers are keeping to or complying with the system, as the auditor understands it.

Audit files

- 20. Whether an auditor is carrying out an audit of a system or carrying out a full audit, he will keep files and notes to form a record of what went on in the past and to provide information for future audits. The sort of information to be included on an Audit files would include:

- (a) *Permanent file:*
 - short description of the department or establishment,
 - list of accounting records and personnel,
 - organization plan,
 - accounting instructions,
 - standing instructions or special instructions from headquarters,
 - correspondence with the Head of Department,
 - any peculiarities of the audit.
- (b) *Current file:*
 - current systems descriptions, e.g., ICQ or flowchart,
 - audit programme with results of the audit,

list of relevant statistics,

copy of any financial statements,

supporting information to show how items have been verified, e.g., bank balance, fixed assets,

copies of correspondence concerning the audit,

list of queries that were found on previous audits and how they were resolved, with carry forwards, if necessary.

These lists are by no means exhaustive, and a random sample of any internal audit section's files will find many items not mentioned above. On a basic principle, the audit file should contain sufficient information for a competent auditor, who has never carried out that particular audit, to perform it.

Audit techniques

21. These fall into the following:
 - (a) The use of audit programmes;
 - (b) Vouching;
 - (c) Test checking.
22. The audit programme is a programme of audit work, prepared in advance, which is carried out by the audit staff. It serves as a check list of what is to be done and a check list of what has been done.
23. Vouchers are documents which authorize transactions such as payment to a supplier, referring to the evidence supporting the transactions and bearing the signature(s) of those required to authorize it. They are the essential evidence to support the entries in cash books and ledgers. Vouching comprises the examination of transactions in conjunction with such evidence as will enable an auditor to be satisfied as to their validity and correctness and their complete and proper record in the books of account.
24. Vouching enables an auditor to go behind the books of account, trace entries to their sources and, so, to obtain information concerning the various items. Efficient vouching is the foundation of an audit, the success of which largely depends upon the thoroughness and skill with which the vouching is carried out. Neglect in this respect might result in fraud remaining undetected and in matters vitally affecting the accounts being passed without proper inquiry.
25. With vouching, it should be seen that:
 - (a) The voucher is addressed to the client;
 - (b) The date falls within the period covered by the audit;
 - (c) The voucher is authoritative evidence of the book entry in question;
 - (d) The particulars in the voucher agree with the nature of the transaction recorded in the books;

Box 16

Example of check-list for monthly audit:
AUDIT PROGRAMME
AUDIT SHEET FOR VEHICLE USE
AND FUEL CONSUMPTION FOR
DOMESTIC SOLID WASTE REMOVAL

QUARTER 19

Department: Solid-waste removal			
Date of audit:			
Name of auditor:			
Date of control:			
Name of controller:			
	Previous	Present	Change

1. Identity number of households served			
2. Calculate theoretical m3 (tonnes) of solid-waste generated per day			
3. Calculate theoretical m3 (tonnes) of solid-waste collected per day			
4. Cross check with weigh-in station for effective m3 (tonnes) discharged			
5. Check number of vehicles in use			
6. Check total number of vehicles			
7. Calculate tonnage per m3 of total capacity of vehicle fleet			
8. Calculate theoretical downtime			
9. (a) Cross-check with log books for effective downtime (b) Trace causes for non-maintenance related downtime			
10. Check total quantity of fuel disbursed			
11. Calculate theoretical consumption per vehicle/per tonne/per day			
12. Cross-check odometers for actual number of kilometres			
13. Calculate real consumption per vehicle per tonne per day			
14. Cross-check with average consumption per vehicle/per tonne/per day			
15. Cross-check with theoretical number of rotations per vehicle per day			

- (e) Any receipt is properly signed and on the authorized form of the payee where an official receipt is used;
- (f) Where an invoice is marked "copy", the original is not paid as well;
- (g) Receipt of goods is properly authenticated;
- (h) The bank at which the cheque is cleared can be reconciled with the business address of creditor;
- (i) Charges are in accordance with the tender or quotation;
- (j) There are no alterations on invoices;
- (k) Invoice is not a photostat;
- (l) If a statement is used, the invoice to which it refers has not been paid.

As each voucher is passed, it should be cancelled by the auditor by means of a rubber stamp with dating attachment, in order to prevent its being produced again in support of another item. Notes should be made of missing vouchers, and inquiries made.

26. Test checking and sampling would normally be used where there are a large number of transactions of a similar nature and there is a good system of internal check in existence. There are certain rules to be followed when applying this technique:
- (a) The sample must be selected at random (e.g., every tenth transaction);
 - (b) There must be a well-designed and well-controlled accounting system in operation;
 - (c) Each item in the sample must be thoroughly examined, and irregularities fully checked out;
 - (d) The level of accuracy required from the sample must be decided before the test check starts (e.g., if past experience has shown an error rate in a series of transactions of 2 per cent, the sample should product a similar error rate);
 - (e) If the required level of accuracy is not found, transactions must be fully checked, and the test-check abandoned.

If possible, the test check should be supplemented by a total check, e.g., it might be possible to check the total amount of cash collected with the total amount banked.

27. Recording of checks in the books of account will be done by the auditor marking the item checked in some way, so that it is not checked again and so that items which have not been checked stand out

Audit of income

28. Income can be divided into cash and credit, depending on whether it is received immediately for services or goods or only after an account has been rendered.
29. For cash income, the auditor's task is to ensure that the system provides evidence of the cash collected and that there is independent verification of the amount accounted for. The evidence normally takes the form of an acknowledgement, such as a receipt or ticket. However, in certain circumstances, provided there is some reliable and independent data available to control the income, e.g., stock records, the auditor should not necessarily insist on the issue of an acknowledgement.

30. The essential features of a sound system of internal control for cash income are as follows:
- (a) Stocks of tickets and receipts should be ordered, recorded and controlled by persons independent of those responsible for receiving the cash;
 - (b) Stacks of tickets and receipts in the hands of the cashier and his staff should be kept to a minimum;
 - (c) Receipts and tickets should be serially numbered, and their continuity should be checked before issue to the cashier;
 - (d) Receipts should be of the duplicate type;
 - (e) Receipts should indicate the nature of the remittance;
 - (f) Spoilt or cancelled receipts should be attached to the office copy, and both copies should be clearly marked "cancelled";
 - (g) Tickets should be cancelled after issue, to prevent their re-issue;
 - (h) There should be spot checks by an independent person, e.g., a public transport inspector, on tickets held by customers;
 - (i) Cash registers or receipting machines should have an audit roll which should not be accessible to the cashier;
 - (j) Where cash is collected from a machine, at least two people should be involved in the collecting and accounting process, unless the machine provides an effective, tamper-proof cross-check by recording numbers;
 - (k) Notices should be prominently displayed at cash-collection points, requesting that receipts be obtained for cash handed to the cashier;
 - (l) There should be a frequent, independent reconciliation of cash banked with audit rolls or the value of receipts, tickets issued etc.;
 - (m) The cash responsibilities of an individual cashier should be clearly defined, e.g., by the avoidance of communal tills and by a proper discharge for cash transferred.
31. The auditor should check that all cash received by the cashier has been brought into account and properly recorded. In particular, the following tests should be carried out:
- (a) Trace remittances received from the appropriate source record, e.g., duplicate receipts or cashier's paying-in vouchers, to the cash book;
 - (b) Examine stocks of unused tickets and receipts;
 - (c) Check readings on cash registers, receipting machines, turnstiles, vending machines etc.;
 - (d) Carry out surprise cash checks, counting the cash in hand and reconciling it with collections since the last banking;
 - (e) Make use of statistics to reveal areas for audit attention (e.g., compare current income with a previous period or in another authority);
 - (f) Make spot checks to ensure that customers hold tickets and that tickets held have not been issued previously;
 - (g) Examine used ticket boxes to check that tickets are not being re-used;

- (h) Carry out observations to ensure that, where appropriate, sales are properly rung up on cash registers.
32. When examining receipt books, the following rules should be followed:
- (a) See that all books issued are shown to you by reference to audit records;
 - (b) Turn to the last receipt previously examined, indicated by the audit stamp;
 - (c) Check continuity of serial numbers, add up each page (being careful about carry-forward totals), examine the dates, see that words and figures agree and trace total to cash account;
 - (d) Stamp the last receipt which has been taken into account;
 - (e) Make the necessary entry in the audit control record;
 - (f) Examine receipts, to ensure that payments by cheque are clearly marked, and look at the paying-in slips to see whether the receipt number is quoted against all cheques;
 - (g) Never leave receipt books lying about where they can be used by unauthorized persons;
 - (h) If there has been any alteration of receipts, ask to see the original (employees should be told that, if they make an error when writing out a receipt, they must cancel it and issue another);
 - (i) Always see that, if a receipt has been cancelled, all copies, the original and duplicates, are retained in the receipt book and that they are clearly marked or stamped "cancelled";
 - (j) As a minimum check, look at the end of the book, whenever it comes into your possession, to see whether receipts have been issued from there, instead of in proper sequence.
33. For credit income, the auditor should examine the system and satisfy himself/herself that accounts are promptly rendered for regular sums due (e.g., local taxes or rents) or for goods supplied or work done, and that effective action is taken to collect the sums due. An adequate separation of duties is an essential part of the system of internal control. The auditor should examine the source records and other related records and satisfy himself/herself that accounts are duly raised. Statistical comparisons can help to establish the completeness of the total due. The possibility of new sources of income arising and being misappropriated should be borne in mind.
34. The effectiveness of the collections system should be reviewed, and departures from standard recovery procedures should be investigated. Reasons and authority for write-offs and allowances should be examined. Arrears can be test-checked by direct inquiry of the debtors. The procedure for dealing with collection through courts and in respect of sums previously written off should be looked at.
35. Statistics are frequently used by auditors to check the amount of cash being collected by individual employees. These statistics will identify the level of income received when each employee has responsibility for collections and, thus, identify variations between employees. The statistics themselves will not be conclusive evidence of fraud but will put the auditor on guard to check carefully the transactions of that employee.
36. A final point to make regarding the audit of income relates to the type of person made responsible for collecting money. Auditors should make a comparison of salary received and amount of money for which the officer is responsible and conditions in which the officer works. In particular, junior employees should not be made responsible for regular and substantial collections or be used as relief cashiers, and auditors should report cases where they think such a practice exists. There are also substantial collections within local authorities where no receipting system is effective. A fraudulent collecting officer can quickly take advantage of this, if other controls are not instituted.
37. It is important that auditors should not themselves accept money for deposit. There might be times when this practice seems the easiest way of achieving one's end, but it can lead and has led to serious difficulty and should be avoided.

Audit of expenditure

38. All services of a municipality are provided by expenditure of some sort and, while the implications of spending may be considered under an objective analysis, i.e., service by service, it is possible to look at the audit implications subjectively, i.e., creditors' payments, salaries and wages, stock and stores, inventories and contract audit.
39. Payment of creditors should have a clearly established system of internal check. However, the auditor will want to be satisfied, from time to time, that the system is working satisfactorily. The essential features of a sound system are a proper division of duties and a sound certification procedure. A division of work into the following groups should provide an adequate level of internal check:
- (a) Requisitioning goods or work to be done;
 - (b) Issuing orders;
 - (c) Examining incoming goods and recording their receipt or recording receipt of a service;
 - (d) Inspecting work done;
 - (f) Certifying invoices for payment;
 - (f) Recording payments;
 - (g) Processing certified invoices for payment;
 - (h) Dispatching the cheques.

The certification procedures should be clearly defined in the authority's regulations.

40. The auditor should select a number of payments for detailed examination and satisfy himself/herself, by tracing through the various stages, that an adequate division of duties is maintained in practice and that the certifications accord with the authorized procedures. Attention should be given to procedures for controlling progress of invoices through various stages of certification and payment systems to ensure that only properly certified invoices are paid and to guard against the possibility of spurious invoices being added to a partly processed batch. Most payments will be made by cheque, and the auditor will want to be sure that there is a satisfactory control over the design, ordering, storing i use of these, particularly if presigned cheques are used. A fundamental rule will be that no person involved in processing payments should have access to cheques at any time.
- (a) Whilst the term "salaries and wages" is a useful sub-division of expenditure, separate conditions apply to the calculation and payment of salaries and wages, respectively. However, certain audit principles operate over the whole field. The main danger of fraud is the introduction of a bogus employee who is then paid regularly by the otherwise efficient machine of the Finance Department. The following are the tasks connected with salaries and wages. Wherever possible, no one person should be responsible for the work contained in more than one of these areas during a payment cycle, e.g., week or month:
- (b) Appointments, transfers, promotion and dismissals;
 - (c) Certifying attendance –time and work done;
- (d) Payroll preparation;
- (e) Payment of salaries and wages.

As an additional check, the auditor might attend wages pay-outs, compare signatures for pay and examine any proxies. It should also be routine for auditors visiting a department or establishment to carry with them a list of staff members who are paid to work there and to try to verify their existence independently of the certifying officer.

42. Audit of stock and stores is approached in a different way by the external and internal auditor. The external auditor is concerned that the stock figure shown on the balance sheet be correct, but the internal auditor's concern is normally that of security and financial control. Stock is basically money in a different form, and very many frauds and other losses have occurred as a result of weaknesses in the stores system. Control procedures to look for are:
- (a) Goods must be properly ordered, with suitable authorization and a suitable system of knowing when and how much to order;
 - (b) Goods must be checked when received into stores and kept secure at all times;
 - (c) Proper stores records should be kept, showing goods ordered, issues made, write-offs and balance in stock at any time;

- (d) All issues must be properly authorized and correctly charged out, using a suitable basis of pricing;
- (e) Quantities held in store must not be excessive, and stock levels should be realistic, regularly reviewed and observed in practice;
- (f) Returns to stores should be properly accounted for;
- (g) If stock has become obsolete or worthless in any way, it must not have an asset value in the books of account, and procedure for disposal should be examined, including any possible means of realising scrap value.

Independent physical checks of stores items should be made regularly. The auditor should examine the record of these checks, verify the authority for any write-offs and physically check a sample of stocks personally.

43. The audit programme for a stores audit would be made along the following lines:
 - (a) Test-check some invoices for goods ordered to go into the stores;
 - (b) Test-check some stores records for arithmetical accuracy, and check goods-issued notes;
 - (f) Verify that the correct procedure is being carried out for goods received, issued and returned;
 - (d) Examine a sample of write-offs;
 - (g) Test-check some records of goods in stock against actual physical stock;
 - (f) Examine all stocktaking sheets, to see the extent of discrepancies;
 - (g) Make sure that the stock records and prices correspond with the stock figures included in the financial accounts.

44. Contract audit is an important area of the auditor's work, as most contracts involve large sums of money and, because of the complexity and size of most projects, they can be difficult to control. Because of the specialist nature of this area of audit work, some audit sections appoint a contract audit specialist who will or can be trained in some of the technical aspects of the work. The audit objectives with regard to contracts are as follows:
 - (a) Assessing and reporting on the adequacy of the authority's internal rules relating to contracts and associated financial regulations;
 - (b) Reviewing and reporting on the extent to which procedures comply with the policies and procedural rules of the authority;
 - (c) Reviewing the adequacy of systems for controlling the operation of contract works from initial planning stage to post-completion assessment;
 - (d) Reviewing and reporting on the extent to which management information is prompt, adequate, accurate and designed for the needs of all the users;
 - (h) Appraising the system for controlling and recording utilization of resources, including staff;
 - (f) Reviewing the use of consultants and agency services provided by other organizations;
 - (g) Monitoring arrangements for securing the authority's assets and recovering the cost of rechargeable works;
 - (h) Preventing and detecting fraud, error and impropriety;
 - (i) Identifying losses due to waste, inefficiency etc., and recovering where appropriate.

45. Inventory is used to mean a record of furniture and equipment in use rather than in store. An inventory should be insisted upon in the financial regulations, and audit should make use of it in checking the existence of durable goods.

Fraud

46. There is no specific crime called "fraud". It is a term used to cover a number of types of crime - embezzlement, robbery, blackmail, obtaining money by false pretences - all of which are theft of one sort or another. Some examples of common fraud are:
- (a) Making up the amount to be banked (or handed over) out of later receipts not shown as included that banking, the process being repeated time after time. (Thus, some cash received on 10 January might be stolen by the cashier who, when banking his collection for that day on 11 January, makes up the amount out of money received on 11 January and so on, day after day. This type of fraud is known as "teeming and lading" and can be very difficult to detect. It emphasizes the importance of performing cash checks of all cash at the establishment at the same time, so that no cash can be switched from one fund to another.);
 - (b) Failing to record cash sales;
 - (c) Inserting fictitious payments in the cash book;
 - (d) Inserting fictitious names on a wages time-sheet, known as "dummy employees";
 - (e) Pilfering stock;
 - (f) Re-issuing used tickets at cinemas, car parks, etc.
47. When investigating a fraud, an auditor must tread warily, not only because of the potential publicity might receive but also because it is likely to result in legal action, and the auditor must be ready to present his case and be cross-examined in court. The following guidelines are offered for fraud investigation:
- (a) At least two auditors should be present when conducting interviews;
 - (b) A written summary of interviews should be prepared, giving who was present, the date and the place and showing signatures of auditors (in no circumstances, should the suspect be asked to sign anything);
 - (c) Suspects should be treated carefully, to avoid the possibility of accusations of intimidation duress;
 - (d) No inducements should be offered;
 - (e) Explanations should be invited by question, e.g., "Can you offer any explanation for ..?" etc.;
 - (f) Leading questions should not be asked;
 - (g) Charges should not be made against suspect;
 - (h) As soon as there are reasonable grounds for suspecting that the person has committed an offence, he must be cautioned that:
 - (i) He is not obliged to say anything;
 - (ii) Anything said will be taken down and may be used in evidence in court;
 - (iii) He is entitled to legal representation.
 (Unless this caution is administered, subsequent information obtained from him will not be admissible as evidence in court.);
 - (i) A lawyer and the police should be brought in at an early stage;
 - (j) All facts should be double-checked, even when admissions of guilt have been obtained (admissions can be retracted later).
48. A fraud investigation can be a harassing and time-consuming business for the auditor as well as the suspect. Therefore, it is cost-effective to promote measures which prevent fraud, e.g.:
- (a) Strong internal checks;
 - (b) Well-designed records and systems;
 - (c) Up-to-date accounting work;
 - (d) Responsible posts filled by reliable officers;

- (e) Duties of individuals changed from time to time;
- (f) Surprise audits.

Value-for-money audits

49. This is often referred to by other names, such as management auditing and efficiency auditing. In all cases, the audit activity is basically looking at the way the organization carries out its responsibility and determining whether it is being done in the most economical, efficient and effective manner. Efficiency must be distinguished from low-cost. It is possible to reduce costs again and again, by reducing the level of service provided, but this is not the same as being efficient. As an example, a common way of cutting costs is to reduce the level of maintenance, e.g., painting, repairs on buildings. Although this saves money in the short term, the inevitable result is that the buildings deteriorate and what were small repairs become large repairs, so that the amount to be spent on carrying out these repairs becomes much more than that which would have been spent on routine maintenance. This is obviously not a very efficient way of maintaining buildings.
50. Efficiency can be defined in the public sector as "providing maximum service at minimum cost". It is easy to measure cost; but it is not always easy to measure level of service provided. It is tempting to try to use comparative statistics on unit costs, for example, cost per patient in a clinic, cost per pupil in a primary school, cost per kilometre of road maintained, but it is debatable whether unit-costing measures the level of service provided. In the above examples, the cost per patient would depend on the size of the clinic, its geographical location and the level of care provided as well as how efficient it was; the cost per pupil would depend upon the geographical location and the quality of education provided as well as the efficiency; the cost per kilometre of road would depend on the standard to which the road was maintained and the geographical location, e.g., whether urban or rural, as well as the efficiency of the authority in maintaining roads. Despite the inherent dangers in using comparative statistics, however, it can be useful to compare unit-costs of different authorities to try to establish the reasons for differences, and an authority might then find it can change its practices and systems without any loss of service.
51. To get an accurate measure of the value for money that is being provided within a particular service area, some form of output measurement for that service is required. For example, it is possible to measure educational achievement by means of the examination results of pupils. It is arguable that education means more than merely passing examinations, but, even if examination success were accepted as a measure of output, the question then arises, "How good were the pupils before they entered the education system?". In other words, it is often not enough just to measure output, and in order to evaluate what has been achieved, input must be measured also, i.e., what sort of pupils entered the school? In the education example, this is fraught with difficulties, especially as part of what is achieved educationally will be derived from outside the educational system, e.g., home environment. These are very variable factors and will be dependent upon, amongst other things, geographical location and social class of parents.
52. One further point regarding efficiency is that it should not be confused with "working hard". An employee who works solidly for 10 hours a day might be less efficient than another employee who sits with his feet on the desk for six hours and only works for two hours, if those two hours are more productive than the other's 10. This does not mean that the second employee could not be more efficient than he is, if he worked harder than he does, but it is a fact that, sometimes, a lot of effort can be unwittingly put into tasks that are totally non-productive, e.g., producing detailed statistics and records that nobody ever reads or needs.
53. Despite these problems, it is possible to increase efficiency and eliminate waste, and one way for public-sector organizations to be seen to be efficient is for them to be seen to be regularly carrying out value-for-money exercises. Because the auditor has financial expertise, detailed knowledge of the systems that operate within the organization and experience of other departments and organizations, it is reasonable for him/her to review management activity, to ensure that it is being done efficiently. However, it is not the auditor's job to question the decisions of management; the auditor should merely be looking at efficient means of doing the same job. Audit's role, therefore, is not to substitute audit's judgement for management's judgement but to provide a positive force to promote effective management of costs. This might be achieved most effectively by auditors teaming up with one or more specialists from the department under review, so that the auditor's knowledge and experience of systems and financial procedures can be complemented by the technical expertise of the departmental representative(s).

XX. CASE STUDIES

A. GULSHAN MUNICIPAL CORPORATION

Stage I

Time: Beginning of 1990

Trainers' notes

This chapter contains two very simple linked exercises in budgetary control through profiling and monitoring. The imaginary Municipal differs from the one used in previous exercises. This is simply to avoid any impression that the approved budget for the Municipal represents a "correct" solution to the stage IV budgeting exercises in chapter XV. (There are no "correct" solutions to the previous stages, all of which involve elements of value-judgements; this is bound to be influenced by participants' own experience and working environment.)

At stage I participants are required to complete a profile of expected monthly collections/disbursements under the 1990 recurrent budget using the data given in the appendices. At stage II, they are expected to compare actual receipts and payments after five months with the profile, to produce a variance report, anticipate the impact of these variances on the outturn for the whole year, and suggest any further investigation or remedial action which is needed as a result.

The purposes of these exercises are:

- (a) To get participants used to the process of profiling and variance reporting;
- (b) To underline the point that revenue and expenditure performance has to be reviewed in tandem as the financial year progresses, if viability is to be sustained; any major deviations in either may require corrective action on both fronts.

The following is the 1990 approved budget for Gulshan MC:

Recurrent revenues		Recurrent expenditure	
	(millions of rupees)		
Property tax	60	General administration	16
Development levy	75	Financial administration	3
Entertainment tax	19	Education	65
License fees	18	Public health	39
Rents and charges	20	Solid-waste management	18
Interest	3	Roads and lighting	40
Education grants	24	Fire	4
Miscellaneous	4	Libraries	2
		Recreation	6
Total	223	Social welfare and miscellaneous	2
		Total	195
Capital revenues		Capital expenditure	
Loans	12	Education	15
Grants	8	Public health	5
Sales of capital assets	1	Solid-waste management	3
		Roads and lighting	22
Total	14	Fire	1
		Recreation	1
		Administration	2
		Total	49

Assignment

Using the information in appendix A and B, work out a monthly profile of projected recurrent revenue and expenditure during 1990, under each head. (N.B. For illustrative exercise purposes, this is a simplified version of a profiling procedure which would normally be applied item by item).

Appendix A

Month	Jan	Feb	Mar	Apr	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Expected expenditure	120	120	260	120	120	130	120	270	350	130	130
Total expenditure to date	240	500	620	740	860	990	1120	1390	1740	1870	2000
Percentage of total expenditure	12	25	31	37	43	49.5	56	69.5	87	93.5	100

1. The monthly profile of actual revenue collections in millions of shilling in 1989 was:

All rates of taxes, fees and charges are set for a calendar/budget year.

	Property tax	Development levy	Entertainment tax	License fees	Rents and charges
January	1	5	1.5	5.0	1.4
February	10	6	1.0	6.0	1.5
March	5	6	1.4	2.0	1.5
April	4	7	1.7	0.5	1.6
May	2	6	1.4	0.3	1.5
June	1	8	1.8	0.2	1.6
July	10	5	1.5	0.3	1.4
August	5	6	1.3	0.4	1.3
September	3	9	2.3	0.2	1.4
October	4	5	1.0	0.3	1.6
November	2	4	1.1	0.2	1.7
December	3	5	2.0	0.6	1.5
Total	50	72	18.0	16.0	18.0

Property tax is payable in two installments, due in January and July. Demand notices are normally issued in January, however.

Development levy: Wage earners pay monthly by deduction from salaries/wages. The self-employed are required to pay in biannual installments due in January and July.

Entertainment taxes are paid as part of the admission charges to cinemas, theatres etc.

License fees (for trading etc.) are payable annually in January or at the commencement of a new licensed activity.

Rents and charges cover rents for corporation shops, market stalls, staff houses etc., paid monthly, together with fees for commercial refuse collection, plus admission to sports centres and use of abattoirs, collected on a daily basis.

Interest is received twice yearly on long-term investment and quarterly on bank deposit accounts.

Education grants (recurrent) are payable in equal monthly installments.

Miscellaneous income is, by definition, unpredictable.

Appendix B

The breakdown of recurrent expenditure estimates for 1900 in millions of rupees is as follows:

	Personnel costs	Debt service	Other charges	Total
General administration	8.3	1.8	5.9	16
Financial administration	1.6	-	1.4	3
Education	48	1.4	15.6	65
Public health	19.0	3.0	17.0	39
Solid-waste management	6.0	-	12.0	18
Roads and lighting	13.0	-	24.0	40
Fire	2.1	1.8	1.9	4
Libraries	1.2	-	0.8	2
Recreation	2.0	-	2.2	6
Social welfare	0.7	-	1.3	2
Total	101.9	11.0	82.1	195

Notes

- (1) Personnel costs provide for increments payable with effect from 1 January, and a rise in salaries and wages averaging 4 per cent with effect from 1 July.
- (2) Loan charges are payable in two installments on 1 June and 1 December.
- (3) Insurance premia on corporation vehicles and buildings are renewable on 1 October. Provision is included in "other charges" as follows:

	Rupees (millions)
General administration	0.5 (all buildings)
Public health	0.3
Solid-waste management	0.8
Roads and lighting	0.3
Fire	0.1
Total	2.0

- (4) Roads and lighting "other charges" include Rs 2.5 million payable to the Electricity Board for street lighting in quarterly bills in March, June, September and December.

B. Gulshan Municipal Council:

Stage II

Time: June 1990

The following is a statement of actual recurrent revenue and expenditure in millions of rupees as at 31 May 1990.

Assignment

Recurrent revenue			
		millions of rupees	
Property tax		21.2	
Development levy		32.8	
Entertainment tax		7.1	
License fees		16.0	
Rents and charges		7.9	
Recurrent expenditure			
	Personnel costs	Other charges	Total
General administration	3.35	2.75	6.10
Financial administration	0.63	0.51	1.14
Education	21.10	7.25	28.35
Public health	7.75	8.05	15.80
Solid-waste management	2.30	4.52	6.82
Roads and lighting	5.25	8.75	14.00
Fire	0.87	0.72	1.59
Libraries	0.48	0.29	0.77
Recreation	0.80	1.43	2.23
Social welfare, administration and miscellaneous	0.27	0.49	0.76

- (1) Using the monthly profile drawn up in stage I, compile a variance report.
- (2) List matters requiring urgent investigation.
- (3) Analyse possible implications for the overall financial position (the general fund balance at 31 December 1989 was Rs 3,463,000).
- (4) Suggest any corrective action which might be required.