Priority setting in national statistical programs

Note for ASEAN seminar, December 2002, Yangon, Myanmar

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Introduction

Almost always and in all countries, the demand for statistics exceeds what national statistical systems can deliver, given the constraints in (human and financial) resources. This may be particularly true for developing countries, but it applies to developed countries as well. Therefore, the need to plan and prioritize statistical operations is universal. Planning and prioritizing go hand in hand. Planning, preferably over periods of several years (four or five), is necessary because it takes time to set up statistical data collections and to organize the ensuing process of data editing, analysis and dissemination, including investments in infrastructure.

Prioritizing in official statistics is difficult. There is no agreed method on how to do it, except that involvement of the users is crucial, whatever the specific approach may be. It involves both *policy decisions* about the statistical work program itself (which data collections to undertake and *operational decisions* regarding the implementation of such a program (which data sources to use, survey methodology and organization, data processing, analysis and dissemination and resource management). This paper is restricted to *policy decisions.*

The paper is structured as follows:

- First, some general points on prioritizing procedures in the public sector will be made.
- Second, the relations between programs and budgets for statistics are discussed in some detail, including a case study (The Netherlands).

- Third, priority setting for statistical work programs is discussed, including two case studies, one for a statistical system that had to be built up from the ground (Palestine, see Annex) and one for a mature statistical system (The Netherlands).

Prioritizing in government budgets generally

Obviously, prioritising is not only important for statistics, but for all public services. Public resources are almost always under pressure. In addition to broad political decisions (spending more or less on defence, or on health, education, infrastructure etc.), governments use various approaches and techniques to decide on how much money goes to which programs and agencies. Over time, various methods to better allocating government resources, prioritising and budgetary reductions have appeared and vanished. In the USA, as early as 1949, the Hoover Commission proposed performance budgeting, President Johnson implemented a program planning budgeting system (PPBS), and the Carter Administration advocated a zero-based budgeting system. All of these efforts looked to better define government program objectives and to link program accomplishments to the means of achieving them. PPBS and 'zero base budgeting' are burdensome techniques: every year government institutions have to argue in some detail and/or from scratch (zero) what they needed tax payers' money for.

In The Netherlands, an experiment with 'performance budgeting' was organised in the eighties by the Ministry of Finance. The idea was to show to parliament (accountability!) what kind of outputs government institutions produced with the appropriations that they had received. Obviously, this is not always easy. Many governments departments and institutions have rather intangible outputs: policy documents, legislation, inspections etc. Statistical offices (and some other kinds of government agencies) are different from general government departments in that they have a more or less tangible output: statistics, in the form of publications, databases etc. Therefore, Statistics Netherlands was targeted as one of the institutions to participate in the 'performance budgeting' exercise. A restricted number of 'performance measures' were selected, most of them 'outputs': number of statistical collections handled, number of publications, publication pages printed, number of copies sold, number of requests for information handled, number of visitors to the library. The system died after about ten years, mainly because it was too cumbersome and was thought to be ineffective.

Budget and program

In another paper for this seminar it is argued that the decision making process about the budget for statistics is complex. Even when the government does not use PPBS, zero-base budgeting or similar techniques, it usually involves the following steps.

1. The statistical agency drafts a plan for what it wants to achieve in terms of outputs and the activities that are necessary to produce those outputs (in the case of statistics: the statistical work program for a given year), makes detailed calculations about the cost of this program and submits a budget proposal to a higher authority, usually a ministry.

2. Some kind of dialogue and negotiation process follows: as a rule the ministry thinks it cannot make available what the statistical agency asks for and some compromise is reached.
3. The budget is discussed and approved or amended by parliament.
4. If necessary, the statistical agency adapts its planned statistical work program in accordance with the amended budget.

Sometimes, the statistical agency and the ministry may agree on a multi-year budget (for the next five years or so), on the basis of a multi-year program of statistical work. In that case, if the government respects the agreement (sometimes it cannot, because the economic situation worsens and/or tax revenues fall short of expectations), it is in principle easier for the statistical agency to look further ahead than just one year. However, even if such agreements exist, the outlook on government spending may change unexpectedly and budgets may be reduced. Therefore, it is always useful for a statistical agency to define clear priorities and to have contingency plans ready.

Logically, the program comes before the budget. The government first wants to know what it gets before it allocates resources. In countries with a well-established statistical system, the logic may be different in that the budget may be allocated almost 'by default', with little change from year to year. Whatever the exact situation may be, statistical offices usually have to work on the basis of a fixed budget that is determined by the government sometime before the start of the budget year.

When the basis for such a budget is a statistical work program, this program may have different levels of detail: from a description in broad lines of the work to be undertaken to detailed itemized lists of specific activities, resources to be used, expenditure for personnel, data collection cost etc. In some countries, a distinction is made between a budget for current expenditure and a budget for capital investment. Almost always, separate budgets are allocated for very big data collection exercises, such as the Population Census.

The discretion to spend resources after the budget has been allocated is also different from country to country. In some countries, there are very specific and detailed rules about how the statistical office (or indeed all government agencies) can spend their budget. In other cases, the head of the statistical office has the discretion to re-allocate resources between statistical projects and/or types of expenditure.

Sometimes, statistical offices are allowed to charge clients (e.g. ministries) additionally for surveys they undertake at the specific request of those clients. Often, statistical offices are entitled to charge users for publications bought or other services provided. Sometimes they are allowed to keep the revenue wholly or partly and to spend it on additional statistical activities. However, almost always these forms of additional income are just a small part of total resources; practice shows that more than 10% is exceptional.

Therefore, priority setting relates first and foremost to the core budget of the office.

Budget follows program or program follows budget

As we saw, usually the program comes first and the budget follows. When this is the case, the basic priority setting has to take place before the application for a budget is submitted to the government. This might be called priority setting *ex ante*. Some additional *ex post* priority decisions may be required during the negotiations that take place after the budget proposal has been submitted, or after the final decision about the budget has been made.

The process may also work the other way around. Then, instead of the budget following the program, the program has to follow the budget. This applies to The Netherlands, where the Statistics Law stipulates the following:

Article 5

1. The director-general of the Central Bureau of Statistics shall prepare a multi-annual program at least once every four years.
2. The multi-annual program shall lay down the broad outline of the activities the CBS will be carrying out in the coming years.

Article 6

1. Before 1 November of each year, the director-general shall prepare a program of work for the next calendar year but one. He may alter the program of work in the interim.
2. The program of work shall lay down which activities the CBS will be carrying out in a given year, ***as far as the available resources will allow.***

Article 7

1. The director-general shall submit the multi-annual program, the program of work and any changes to the program of work to the Central Commission for Statistics for approval.
2. After approval by the Commission, the director-general shall make the multi-annual program, the program of work and any changes to the program of work available for inspection at the CBS during the period for which they apply. He shall give notification of this in the Netherlands Government Gazette.

In The Netherlands, therefore, priority setting basically takes place *ex post*. Only *after* the government has decided about the budget for statistics, the final decisions about the work program are made. Obviously, to some extent this is theory. In practice, the priority setting process is an ongoing concern. Normally speaking, the Director-General of the CBS and the Central Commission for Statistics have agreed on priority schemes and contingency plans long before the final budget decision is made.

So, whatever the exact arrangements in a country are, the procedures for basic priority setting in statistical programs are a mixture of *ex ante* and *ex post* processes and decisions.

Defining priorities in statistical work programs

Typically, 80% or more of the budget of a statistical office is spent on its core activities: data collection, data processing, analysis and dissemination. 10-20% is spent on

administration, management and other 'overhead'. Therefore, decisions about these core activities, i.e. the basic program of work, are at the heart of all priority setting.

First of all, this involves decisions about which data collections should be undertaken. The complexity of these decisions depends on the size and maturity of the statistical office. In the case of small offices in developing countries the issue is probably first of all to routinely produce a minimum set of indispensable statistics, in particular:

- Basic annual national accounts, including some underlying business and household collections
- Basic demographic data
- A monthly or quarterly consumer price index
- (Probably) Basic agricultural statistics
- Some statistics derived from administrative data, including international trade data (based on Customs documents), health and educations statistics (based on data from the responsible ministries)

To prioritize *within* this restricted set of statistics is almost impossible, because all or most of these data are fundamental for macro-economic and basic social policy. An illustration of prioritizing for a statistical system that has to be built up from scratch is given in the Annex[1].

When offices get bigger, the problem of prioritizing becomes perhaps less fundamental, but certainly more complex.

Priority setting in statistical programs

Unquestionably, all national statistical systems must be demand-driven. However, there are various reasons why a statistical work program cannot always be an exact reflection of what the users want (or what they say they want).

1. Governments are among the most important users of official statistics. However, the impact of government programs on society and the economy is not always entirely clear. Therefore, it is also not clear which statistics are exactly needed to monitor the effects of such programs.
2. Even when this is more or less clear, users (whether they are government users or other users) are not always able to articulate their demands, even when there is a good, ongoing dialogue between the users and the statistical office.
3. Users sometimes request information that, in practical terms, cannot possibly be collected by statistical offices, at least not at the required level of detail and /or timeliness and within existing resource constraints.

[1] It concerns extracts from a Masterplan for statistics in Palestine, developed by Sten Johansson (Sweden) and Willem de Vries (The Netherlands), with inputs from Ramesh Chander (World Bank).

4. Some users have a short-term view (particularly politicians). It takes time for the statistical office to collect the required data and by then, the users may have different views and different priorities.
5. Users sometimes do not see the 'larger picture', e.g. they do not understand (or are hardly interested in the fact) that it takes years to build up a statistical system that produces reliable national accounts and that there may be elements in such a system for which the users have little interest, but which are nevertheless necessary.

When it comes to priority setting *within statistical work programs*, there are some additional difficulties[2].

1. Users normally do not agree on what is more and what is less important. For example, they will find it very hard to agree on which is more important:
    - A more precise CPI or more timely quarterly national accounts
    - More timely quarterly national accounts or regional accounts
    - More detailed statistics about poverty or better statistics about internal migration
2. Users may have a parochial view. The Ministry of the Environment may emphasize the importance about statistics on air quality, and may have no interest whatsoever in statistics about literacy. The Central Bank may consider the CPI as a top priority, and may think that statistics about housing conditions are not.
3. So far, to my knowledge, a satisfactory 'objective' method to make decisions about priorities has not been developed.

Criteria for priority setting; experiences in The Netherlands

In The Netherlands, the Central Commission for Statistics decides on work programs. Before 1996[3], it had about 45 members, including 13 members representing ministerial departments. In the 1980ies, the work program of the Central Bureau of Statistics (with, at that time, about 3000 staff) consisted of about 400 elements (data collections and some other activities). When budgets became tighter, the Commission complained that it had difficulties to seriously discuss priorities without having clear, explicit criteria for priority setting. Various factions within the Commission had divergent views on priorities. The macro-economic policy makers and analysts (Ministry of Finance, Central Bank, some researchers) thought that producing more precise, more detailed and more timely national accounts were the most important objective. Environmentalists thought that expanding the program of environment statistics was the number 1 priority. Social policy specialists (ministries of Social Affairs, Health, Education, some social researchers) were convinced that social statistics had been systematically undervalued in comparison with economic statistics, etc.

[2] This section of the paper primarily applies to more or less centralized statistical systems. When ministries make their own statistics, the priority setting process is of course somewhat different.

[3] In 1996, a revised Statistics Law came into force; the size of the Central Commission for Statistics was reduced to 12 members, all of them 'independent' (ministerial departments are no longer represented).

In response to this request for a system of criteria for priority setting, the Bureau proposed a set of criteria, the most important of which were the following:

- Existence of European legislation that requires countries to produce certain statistics. Because European Union legislation (Regulations) supersedes national legislation, this was seen as a dominant criterion. It should be noted that -at that time- about 60% of the data collections of the CBS was ruled by some EU Regulation. Now, it is even more.
- Existence of national legislation that prescribes the production of certain statistics and/or implies the existence of such statistics. This is for example true for the Consumer Price Index; some legislation about the adaptation of wages and pensions mentions the CPI as the instrument to do this.
- Significance of data collections for the system of statistics as a whole. Some collections, for example, are crucial for the national accounts.
- Significance in money terms of the phenomenon that is described. This criterion, obviously, applies particularly to economic statistics. Some economic collections describe large flows of funds or generation of value added, some deal with much smaller amounts.
- Significance of the population that is described. This is the equivalent of the previous criterion, but then for social statistics.
- The variability of the phenomenon that is described. This criterion is not so much important for priority setting *per se*, but it is relevant for the frequency with which the phenomenon is measured.
- Impact of statistics on the economy or on society. Clearly, some statistics have a direct and strong impact on economic and social policy, while in other cases, this is less clear.
- Nature of the use of the outcomes. Are outcomes used to directly distribute or re-distribute public funds ('formula use' of statistics) or are they 'merely' used as inputs for policy studies?
- Sales of products. If certain data are better sold than others, this is an indication of their importance for society.
- Reporting burden. This was seen as a 'negative criterion'. All other elements being equal, statistical data collections that generate a high reporting burden have a lower priority than statistics with a low reporting burden.
- Cost. This was also a negative criterion. Again, all other things being equal, statistics that are costly to produce have a lower priority than inexpensive statistics.

It should be noted that this set of criteria is not hierarchical or supposed to be applied sequentially. Moreover, the criteria are clearly not 'independent' or mutually exclusive, but overlap each other. In addition, there is no 'weighting system' attached, the exception being the first criterion of the list. This criterion was considered to be dominant; in other words, if there exists a EU Regulation stipulating that Member States have to produce certain statistics, these statistics automatically have top priority.

A large amount of information had to be collected to enable 'implementation' of the criteria, such as information about the cost of statistical projects, the reporting burden for respondents, the sales of publications, descriptions of the ways statistics are being used by various users, etc. Some experiments with weighting were also done.

Although the Commission appreciated the efforts made, application of the criteria never *directly* led to actual priority setting. Using the criteria did help, however, in two different ways:

- They were instrumental in generating much-improved systems of management information in the Bureau, including: systematic cost- and revenue accounting, documentation about actual use of statistics and about the users, better documentation of EU legislation.
- They generated 'profiles' of data collections. Data collections with a poor profile (e.g. collections without legal obligations attached, outputs with little use, no direct impact on society, high cost, high burden, etc., or any combination of such negative factors) were obviously candidates for deletion from the program of work.

Building up a new statistical system, the case of Palestine

Extracts from a report written in 1994 by Sten Johansson (Sweden) and Willem de Vries (Netherlands), with inputs by Ramesh Chander (World Bank)

Please note that the situation in Palestine has changed considerably over the last 8 years. As a consequence, parts of the text below are outdated.

Some general considerations

In the best of circumstances, the determination of statistical priorities and the formulation of a work program is a challenging and difficult task. A key consideration in the determination of an integrated, balanced and sustainable work program is the policy relevance of the data being compiled.

As a newly established entity, the Palestinian Central Bureau of Statistics (PCBS) is severely constrained by a host of special circumstances. Under these circumstances, PCBS faces a most daunting task in rapidly establishing itself as a functioning statistical entity that can generate the most urgently needed data series.

General considerations on priorities

In addressing the issue of priorities and work programs, a distinction needs to be made between what must be done immediately and the formulation of work plans going beyond presently compiled series.

The establishment of clear statistical priorities, in the present circumstances faced by PCBS, is indeed difficult. To assist PCBS, a number of recommendations are made in the report based on the perceived needs of the Palestinian National Authority (PNA), and also partly based on experience elsewhere in the world. Two broad sets of requirements can be identified: the need for a set of timely macro-economic statistics to support policy formulation and monitoring of economic trends, and a second set of statistics encompassing the social and human dimension. In specific terms it is recommended that PCBS adopt a work program that enables the generation of:

- National accounts
- External trade statistics
- Balance of payments statistics
- Public finance statistics
- Price statistics

- Measure of living conditions incorporating household incomes, expenditures, employment, health and education statistics, along with a set of basic demographic statistics.

On the more general issue of maintaining balance in the overall work program of PCBS, it seems that demographic statistics are being over-emphasized. It is noted that PCBS is currently negotiating arrangements for a general demographic survey followed by a demographic and health survey. In addition, plans are in place for a Community Survey that is also likely to incorporate population related topics. A re-evaluation of plans for population-related surveys is recommended to ensure greater balance in the overall work program of PCBS. It would also appear that insufficient attention is being devoted to the issue of sustainability and continuity of statistical series now being developed. Experience in a number of countries shows that an ad hoc approach with a strong bias toward demographic work, with limited attention paid to issues of sustainability can have grave and lasting consequences for the statistical system.

Development of a system of subject matter statistics

General

Ideally, a plan for subject matter statistics should be built on the established priorities of the political authorities of the country. This is difficult in the Palestinian case since the Palestinian political authorities are in the process of constituting themselves with elections scheduled some months ahead. They are not allowed complete control over their territory and must operate under many severe restrictions.

On the other hand, the emerging PNA needs a basis of reliable facts on current states and trends in all areas of societal concern to establish priorities. The need for establishing a statistical system was conceived by the PLO as very urgent for this very reason and indeed the Statistics Bureau was the first department to be established by the PLO in the emerging Palestinian administration.

In planning the Palestinian system of official statistics we cannot then ask: Is population statistics more important than economic statistics or social statistics? In social statistics we cannot ask: Is labor force statistics more important than health, education or housing statistics? Is industrial statistics more important than agricultural statistics within economic statistics? These central sectors all need statistics for their normal operation.

This plan for subject matter statistics for Palestine is based on theoretical considerations and international practices and experiences of other countries. Statistical needs that have arisen in other countries will be relevant for Palestine as well, although all such needs cannot be satisfied through a long process of evolution. Shortcuts have to be found, but rational considerations dictate that these shortcuts not be ad hoc, but form the basis for evolving the system in the longer term. However,

there is no established international practice or model for structuring a comprehensive and unified system of official statistics.

In this plan, we shall elaborate a Palestinian statistical system with three interlinked sub-systems:

1. A system of population and social statistics in which the primary unit to be counted are persons and their characteristics;
2. A system of economic statistics where the primary phenomenon to be observed is transactions and their money value; and
3. A system of "area statistics" where the primary units are based on land and land use and the fixed structures on land.

An ideal from the statistical point of view is that the subsystems are based on three central registers of population, of economic establishments and of land and land use.

Demographic statistics

There are three options for improving the situation: 1) a fairly large demographic survey; 2) a full-scale population census, and 3) a campaign to improve the existing population registers.

1. A large-scale demographic survey of the resident population would serve as a stopgap measure to reduce uncertainties in existing statistics. It cannot replace a full census. The recurrent need for such a survey to improve basic population estimates in the future will depend on whether a register-based approach to population statistics is viable and chosen for the long run or not.

2. A full-scale population census requires careful planning. Most countries need two or more years to plan a census and four to five years from start of the planning to final reports. While lead-time certainly can be reduced if the census is well financed, less than a full year for planning and a further year for presenting basic results is hardly realistic. This would be the first census of the Palestinian population ever taken by Palestinians.

Most countries conduct full population censuses every ten years and some of the rich countries every five years. Between censuses, the population figures on size and structure are updated with the help of administrative registration systems for births, deaths and migration flows if such systems exist and give reliable data. Otherwise specialized demographic surveys or so-called micro censuses at mid-decade are needed.

With such a system the accuracy of population statistics is inevitably cyclical, reasonably good in the years immediately after the census, but then uncertainties start to accumulate. They increase progressively until the next census is held and the cycle starts again. Only countries with good registration systems can minimize this cycle and indeed hope to avoid an undercount in the census.

3. If successful, a campaign to improve existing population registers would immediately and drastically reduce uncertainties in existing population statistics for the resident population. Such a campaign with a call to all residents to register for Palestinian citizenship would probably have the best prospects fairly soon after a political agreement to extend Palestine National Authority to all of the occupied territories.

It would fulfill most of the functions that a demographic survey could fulfill for population statistics, but in addition lay a sound basis for all of Palestinian public administration and also private enterprise if the right to use it is extended to e.g. employers, banks and insurance companies on Palestine territory.

Such a campaign needs planning and lots of public relations creativity to transform it into a Palestine national ritual to confirm Palestine identity and citizenship.

A campaign to improve and update the Palestinian population register is not primarily a statistical activity, but a concern for all Palestinian public administration. A decision to maintain a population register, as the basis for equitable and cost-efficient public administration needs to be promulgated in a separate law, not part of the General Statistical Law, detailing its functions and the procedures to continuously update it with systems for registration of births, deaths and migration. The central population register would by this law be limited to contain only very few items; the complete names of all, identity number, date and place of birth, current address, marital status, and at least for minors, names and identity numbers of father and mother.

It is recommended:

1. That a system of population statistics be based on a central register of population, established by law, including the procedures to update it with births, deaths and migration.
2. That a campaign to improve and update the existing population register is planned and carried out as soon as Palestinian control of occupied territory is fully established.
4. That a full scale census of population and housing is then planned for some years later, and
5. That a fairly large demographic survey be carried out as planned if needed as a stopgap measure if the process toward full Palestinian control of all occupied territory is delayed.

Social statistics

General

Social statistics are fully dependent on population statistics. In most countries, social statistics are built on a combination of administrative records and specialized surveys. The number of teachers and pupils at various levels come from the school system, the

number of doctors, nurses, attendants etc. come from employment records or from administrative procedures of licensing such professionals. Income statistics are often based on records from tax authorities. Numbers of patients treated for various illnesses come from records from doctors and hospitals. Numbers of crimes come from reports to the police and from court records.

To be more meaningful, such statistics based on administrative records need reliable population statistics to provide a basis for calculation of rates and proportions such as number of doctors, nurses, hospital beds per 100,000 population or a similar measure, incidence of various illnesses and causes of death, school enrolment rates of various age cohorts etc.

The various sectors are also served by statistics from specialized household surveys, such as labor force surveys, income, expenditure and consumption surveys, health surveys, housing surveys, literacy surveys, victimisation surveys etc. The most important argument for these specialized surveys is that meaningful interpretation of change in statistical series based on administrative records alone is often not possible. They often cannot tell whether there is an actual improvement or not in living conditions and the welfare of the population.

Health surveys are thus made to get a representative picture of the health situation and incidence of various conditions, including those for which no treatment has been given or sought. Labor force surveys are organized to measure employment and unemployment in a fully representative way with internationally agreed concepts, definitions and measurement methods. Added perspective on the labor market situation is then also given by the possibility to make valid international comparisons.

The information needs that social statistics are meant to serve are then best satisfied when statistics based on administrative records are integrated with the system of population statistics and then complemented with surveys to provide meaning and perspective to effectively diagnose problems, guide action and evaluate progress made. A Central Bureau of Statistics with the requisite legal authority can best make this combination of administrative statistics, population statistics and surveys rather than by each sector working on its own statistics.

A list of social concerns

One of several such lists used to structure social statistics in the Nordic countries include the following nine components:

1. Household income, expenditure and consumption
2. Labor force and working conditions
3. Education and access to schooling
4. Health and access to medical care
5. Family and conditions of vulnerable groups
6. Housing and amenities

7. Culture and recreation
8. Victimization by accidents and crimes
9. Popular organizations and elections

In the following, we shall briefly list international practices and experiences and also very briefly relate them to existing statistics for the occupied territory.

Household income, expenditure and consumption

Household income, expenditure and consumption can only be obtained through surveys. Countries with very good records from income taxation and social insurances can produce income statistics mostly based on administrative records, but not without complementing them with some survey data. To obtain accurate income data from households is difficult in all countries. Household expenditure and consumption data must be obtained from households through surveys in which households are required to record daily expenditures and consumption for a one-, two- or four-week period in a diary. Keeping such a diary even for e.g. a two-week period is a big undertaking for households; requiring intensive assistance from interviewers often with household visits every second day, particularly if households are illiterate. The needs for such data in a social perspective as a basis for evaluating living conditions, prevalence of poverty, consumption patterns and nutrition are urgent. In an economic perspective expenditure and consumption patterns are needed as a basis for weights in a consumer price index, for private consumption and other estimates in the national accounts. These combined reasons are so wide and urgent that an expenditure and consumption survey is often one of the first tasks to be accomplished by an emerging statistical bureau in developing countries.

Labor force statistics

Labor force surveys are conducted yearly, quarterly and in some of the richest countries even monthly to provide some of the most important indicators of economic activity. Their content and methodology are very well coordinated internationally by agreements and recommendations from the ILO. However, ILO concepts and definitions are best suited for highly developed countries with most of the labor force in urban wage labor. In the least developed countries with the majority of the population in a rural subsistence economy, the ILO concepts and definitions are less meaningful.

Labor Force Surveys are sample based, and cannot therefore provide data on employment, occupation and kind of economic activity with detailed local breakdown to serve local planning needs and more specialized needs for research on labor markets and for medical research. The need for such data can only be satisfied with a population census.

A full program for labor statistics includes data on a variety of working conditions. According to ILO convention No. 160, a comprehensive program of labor statistics

includes data on wages, earnings and labor cost, occupational injuries and diseases as well as data on strikes, lockouts and other industrial actions.

Education and access to schooling

Statistics on education and access to schooling for the young population of school age are normally built on administrative records, reported through the sector channels of the Ministry of Education. Statistics on the level of education of the adult population and the labor force in particular are obtained from surveys and from the population census for the more detailed needs of local planning.

The most advanced countries with register based official statistics have used a population census to establish a register of education of the adult population, which they then continuously update with administrative records from schools on certificates and degrees for pupils and students finishing at the various levels of the educational system.

The Palestine nation has a very young population. Close to 50% of the population is below 15 years of age. Close to a third of the population is 6-14 years of age. Access to schooling and quality of schooling available is of paramount concern for the future of Palestine and is, of course, a top priority.

Health and access to medical care

Statistics on health and access to medical care are mostly based on administrative records from doctors and hospitals. Very few countries conduct health surveys on a regular basis. The classic indicators of the health of a population are based on mortality statistics, including cause of death statistics according to classifications recommended by the WHO. Life expectancy at birth and various later ages and infant and under five mortality rates, together with cause of death statistics yield very relevant and meaningful information on the health situation. Changes in these indicators, however, become less and less meaningful for countries with the lowest infant mortality rates and the highest life expectancies.

A plan for a Demographic and Health Survey (DHS) in the occupied territory has been developed by PCBS and the American social science firm Macro International. It is designed to collect relevant data from a stratified sample of 6,000 ever-married women age 15-49 to evaluate health programs and family planning and to further assess the demographic situation in Gaza and the West Bank and to support dissemination of the results in planning and managing the health and family planning program in these areas. Such a survey with its focus on mother and child health concerns is very relevant also for the next area of social concern.

Households and vulnerable groups

Statistics on households, families and vulnerable groups include data on household size and composition normally needed at detailed local level and therefore obtained by the

population census. Countries with the most advanced registration systems can tabulate yearly data on household size and composition only if the central population register has detailed addresses including apartment numbers for multi-apartment buildings and a register of all dwellings. Forecasting housing needs and developments on the housing markets for national and local planning by public authorities and private firms require these statistics.

In a social perspective, statistics on families and family composition within households are relevant for identification of vulnerable groups like single parent families, orphaned children and foster and adopted children, handicapped or very old people.

Statistics on family formation and dissolution through marriage and divorce or death of either partner are normally based on administrative records, as are statistics on so-called illegitimate children born by unmarried mothers. In many of the rich countries, administrative statistics on marriage and divorce are no longer relevant since an increasing proportion of families are formed and dissolved without registering marriage or divorce.

Housing conditions and access to services

Statistics on housing and amenities are normally needed by countries at very disaggregated levels for local planning of construction and amenities and services. Most countries therefore combine their population census with a census of housing. Since the housing stock is stationary and renewed and increased with only some percentage points per year, the customary inter-censal period of ten years is not a great disadvantage, particularly since changes in the housing stock can be followed at the local level on the basis of statistics on housing construction.

Housing conditions in a social perspective can, however, change more or less on a year-to-year basis if the population is increasing at a fast rate or if migratory movements from rural to urban are substantial. In the Palestinian case there has not been any housing census for decades.

Culture and recreation

Statistics on culture and recreation normally include statistics on libraries, books, newspapers and periodicals, museums, cultural and entertainment shows and films produced. Related to this category are also statistics on household possession of radios, tape recorders, tv-sets and video and size of radio and tv-audiences. Statistics on religious institutions and service attendance is another separate category. Some countries include also sports facilities, organizations and sports activities. The statistics in this area are mostly based on administrative reports, but statistics on activities are in most cases obtained through surveys.

Victimization by accidents and crimes

Statistics on public order and victimization by accidents and crimes are normally based on administrative reports from the police and the courts. Such statistics also include data on the incarcerated population (persons in prisons).

Traffic accidents and serious accidents at places of work in most cases lead to police involvement and are therefore reported through the same channel as crimes. Other serious accidents leading to death or serious injury are reported from the medical system. Few countries have adequate procedures for reporting all types of accidents, including the many that occur at home, but most produce statistics on traffic accidents and occupational accidents while other types of accidents are reported only if hospital treatment is sought.

Only a few countries complement such administrative data with household victimization surveys counting victims from crime of violence or property.

Elections and civic organizations

All countries produce official statistics on voting participation and election results. A few also attempt to illuminate the level of popular participation in other parts of the democratic political process, such as writing in newspapers, organization rate and activity in parties, trade unions and other organizations, speaking at meetings, participation in rallies and demonstrations. Such statistics are survey based but, of course, do not include which parties and organizations. A third aspect that such surveys can cover is whether respondents have been wrongly or unjustly treated by various authorities, such as police, hospitals, schools, tax agency, employers, trade unions, banks, insurance companies etc.

It is recommended:

1. That a system of social statistics for Palestine is based on administrative records from the sectors of social concern integrated with the system of population statistics and combined with surveys.
2. That a national household survey capability program be built on the nucleus provided by the existing data collection infrastructure for the Labor Force Survey.
3. That the data collection for the Labor Force Survey is immediately continued to maintain its capability.
4. That a household expenditure and consumption survey is planned, to be conducted at the earliest possible moment.
5. That the household expenditure and consumption survey is conceived as the first independent module in a comprehensive social indicator survey to be continuously conducted.

Economic statistics

From a systems point of view, one of the main differences between economic and social statistics is, that for economic statistics there exists a globally accepted, comprehensive and consistent framework: the System of National Accounts (SNA 1993), while such an overall framework does not exist for social and demographic statistics. The SNA

describes, in general terms, but also in some detail, how economic statistics should be compiled. Being a macro-economic framework, the SNA does not cover all statistics that are generally called 'economic'. In particular, it does not cover data collections with a very specific purpose, such as statistics meant to monitor such phenomena as energy flows, or specific details on agricultural production, or the number of people making use of public transportation systems etc.

The existence of the SNA facilitates the description of an ideal system of economic statistics, because the SNA is the 'recipe book' that may be referred to. Therefore, the following outline of a system of economic statistics for Palestine can be relatively brief.

A fully developed national system of economic statistics ideally describes the complete economic process and its sub-processes: production and the generation of income, income distribution and re-distribution, financial flows, capital formation, economic relations with the rest of the world. Typically, the core of such a system is a set of standardized (in terms of the requirements of the national accounts) institutional statistics, concerning institutional economic actors (businesses, public bodies, etc.), classified according to their principal activity in terms of an internationally agreed classification of economic activities, such as ISIC (UN) or NACE (European Union/EU). Often, detailed data about the physical outputs and inputs of commodities are also collected, classified according to commodity classifications such as the CPC (UN) or Prodcom (EU). These are particularly important for the construction of supply and use or input-output tables and thus for analysis, modeling and forecasting.

In addition to this core, a system of economic statistics usually comprises some detailed, more specific statistics about certain areas of economic activity, which are the subject of special government policies (e.g. agriculture, energy, transport etc.).

Correct methods of dealing with statistical units are essential for institutional economic statistics. Also, a good business register is required as sampling frame for business statistics. Coordination is necessary in order to ensure that statistical units and products are classified according to agreed international standard classifications, and to prevent double counts and omissions. It is also essential that definitions of variables are used which enable the integration of sector statistics into the national accounts.

A good system of economic statistics is balanced in the sense that there is a relation between the volume of statistical effort per sector of the economy and the importance of those sectors in terms of value added and employment. In many developed countries, statistics on such sectors as agriculture and manufacturing are still being over-emphasized, while statistics on the services sector are relatively underdeveloped. There is also need for a balance between short-term indicators (quick, but not very detailed) and structural statistics (slower, but more detailed).

Most sets of economic (business) statistics are based on samples. Assuming that there is a good system of structural statistics, the samples for short-term indicators can be relatively small. Structural business statistics are usually based on larger samples, either stratified

samples with different fractions for each size class (usually to be determined by number of full time employees) or samples of the cut-off type, whereby larger companies are fully surveyed, while the smallest companies are entirely left out (estimates of their production being made on the basis of e.g. labor and wage statistics), depending on the structure of the sector involved. Ideally, structural business statistics are compiled annually, for each sector of the economy. However, in many countries this ideal is not achieved, simply because resources do not permit it. In particular in the case of Palestine, where resources are extremely restricted, there is a lot to be said for the IMF proposal to use intervals (e.g. five years) in the compilation of structural business statistics, for some sectors.

National accounts

In the national accounts, economic statistics are integrated. This requires several activities: completion (by means of estimates) of missing data, harmonization of inconsistent data, and confronting data from different sources. The importance of national accounts is not only that they give an overall view of the economy, and produce essential macro-economic aggregates, but also that they are an instrument to check the completeness and quality of basic economic statistics. While the compilation of reliable, detailed national accounts is in fact only possible on the basis of a good system of underlying statistics, under certain conditions (such as in Palestine) there is a case for a reverse approach: trying to compile as-good-as-possible national accounts in order to find out what basic statistics are missing and what the probable quality of existing basic statistics and other sources is.

Structural business statistics

Structural business statistics are usually compiled on the basis of (annual or less frequent) questionnaires, containing such variables as:

- Production value
- Output of specified products and services
- Intermediate consumption
- Value added at market prices
- Value added at factor cost
- Personnel cost
- Financial surplus
- Specified and total purchases of goods and services
- Gross investment in tangible goods
- Stock of capital goods
- Number of employees, persons and full time equivalents.

Short-term indicators

To monitor short-term developments, it is usually sufficient to collect monthly or quarterly information about turnover and employment. For certain sectors, such as the

construction industries, special observation techniques may be required, such as assessing physical progress at building sites. In addition, it may also be useful to collect some summary information about the expectations of businesses for the near future (so-called business trend surveys).

Some specific sectors

Some sectors presenting special difficulties and requiring a special approach, because of the specific nature of their production process, are the financial sector (including insurance) and the general government sector. The SNA describes how these could be handled. In many countries, statistics on the banking sector are not compiled by the national statistical office, but by the national central bank.

External trade statistics

There are basically two methods of compiling statistics on international trade in goods. The first and most common method is making use of customs documents. However, in some circumstances this is not possible or not the most practical option (for example, if there is no customs system, or not yet; or in the case of centrally planned economies, where the number of companies licensed to be engaged in international trade was very restricted). The second method is direct surveying of companies. This second method is now applied for trade inside the European Union, where customs borders where abolished January 1993. Generally speaking, the second method is more costly than the first, in particular if customs administrations are computerized and can supply electronic files to statistical offices.

External trade in services is a far more difficult area than external trade in goods. Few countries are able to make accurate estimates of external trade in services. For national accounts and balance of payments purposes, most national statistical offices make estimates on the basis of a combination of their own data and data collected by the national central bank about international money flows.

Price statistics

A system of price statistics usually has two components: a Consumer Price Index (CPI) and some statistics on producer prices. Typically, the CPI is one of the most demanded and intensely used products of a national statistical office. It is generally accepted as one of the main indicators for inflation and is widely used for such applications as: wage corrections, indexation of rents, indexation of contracts etc. A second type of price statistics is producer prices, mainly used to deflate national accounts figures in order to calculate production volumes etc.

Some specific sub-systems of economic statistics

In most countries there are specific sub-systems of economic statistics to monitor policies in such areas as transport, energy supply, agriculture, tourism and others. It is impossible

to make any general statements on these types of statistics; because priorities and specifics depend entirely on national policies. In some countries, statistics of this type are not compiled by the national statistical office, but by ministries and agencies responsible for the areas in question. While it may have certain advantages (more possibilities for analysis, better coordination, possibly a lower response burden) to centralize these statistics, this is generally not essential for the integrity of the overall statistical system.

In the months to come, discussions will take place between PCBS and interested other agencies, in order to assess what information will be needed, in particular in the areas of energy statistics, transport statistics and construction statistics. Based on experiences in other countries and international recommendations, the following global program of work may be envisaged for the future.

Energy statistics; basic statistical information about energy flows will probably have to include: production, export and import of different types of energy carriers, transformation of energy carriers (e.g. fuels to electricity), consumption of different types of energy by sector.

Transportation statistics; basic statistical information to be collected will probably include: stock of transportation equipment by type, age, capacity and ownership, performance of professional transportation equipment (numbers of passenger/kilometers and ton/kilometers), stock of roads and traffic density on main thoroughfares, road safety (type of accident, damage, casualties).

Construction statistics; both for national accounts purposes (estimates of building production) and for specific planning purposes, information will probably have to be collected on: building permits by type of building and size of project, building projects actually started, building production (progress of construction, materials used, person-days spent), finished buildings by type, including some specifics about completed dwellings.

Business register

Any solid system of business statistics requires a proper sampling frame in the form of a business register. If such a register does not exist, building it up is of the highest urgency. As mentioned before, in most countries business registers are not kept for statistical purposes only. In addition, a business register is an instrument for the orderly functioning of the economy as a whole (recording ownership etc.). There are many different ways to organize proper registration of businesses. In some countries the central statistical office is the owner of a register that is both used for statistical and other purposes. This calls for very precise rules about the variables that are public information and the variables that fall under the rules of statistical confidentiality. In other countries such a register is kept by another agency (e.g. courts, chambers of commerce, municipalities).

The typical units in such a business register are legal units and local units. For statistical purposes, these units must be transformed into such units as enterprises and

establishments. The SNA 1993 gives a good overview of how to construct statistical units. For statistics, it is also important to have an idea about the share, in each industry, of inactive units in the register. Many companies that cease their activities neglect to report this.

Ideally, the business register should include all activity categories. However, the scope of the register depends on national legislation. In many countries, for example, the register does not include agricultural holdings, because they are subject to special regimes in the framework of agricultural policy. Other categories that are typically missing are independent professionals (doctors, lawyers etc.), public bodies and private-non-profit institutions.

Apart from being a sample frame for business statistics, the statistical business register can also serve as a database for economic demography: statistics on births and death of economic actors, and other changes in the 'population' of businesses.

The basic variables of a public Business Register normally are:
- Identification number
- Name of the legal unit, address etc.
- Names of owner(s) or director(s)
- Date of legal or administrative birth
- Legal form
- Activity code for the unit's primary activity
- Ancillary activities (if any)
- Number of employees
- Date of start of activities
- Date of cessation of activities (when applicable)
- Information on local units (if any)
- Legal or actual (financial) relationship with other units (if any)
- References to other registrations in which the unit is registered, such as a tax register.

Envisaged approach to economic statistics

As a first step, PCBS envisages to organize an inventory of all establishments (except agriculture). This will be the basis of a provisional business register for Palestine. Thereafter, surveys are planned to produce economic accounts. The first phase will concentrate on: production accounts, income generation accounts and gross capital formation and inventories accounts.

The total inventory of establishments will cover the following sectors: mining, manufacturing, electricity, gas and water, construction, wholesale and retail distribution, transportation and other services (including government services). Agriculture will be dealt with in a different manner (see below).

The questionnaire is limited to the following items: name and address of the unit, main economic activity, year of creation of the unit (and: year in which it started its activities), ownership (incl. foreign participation), legal status, number of persons employed.

The survey would begin end of 1994 and would be followed by benchmark surveys covering the producing industries: mining, manufacturing, electricity, gas and water and construction. These benchmark surveys will cover (according to SNA standards): gross output, intermediate consumption, fixed capital formation, inventories, employment, wages and salaries, value added. This will enable the calculation of the contribution of the different industries to GDP and provide a firm basis for National accounts, likely at the end of 1995 for the year 1994.

For other branches, sample surveys will be organized. These will cover: wholesale and retail distribution, transportation and other services. The implementation will depend on technical, financial and personnel capacities of the PCBS.

After the development of the database for the reference year (1994) a system of integrated annual and quarterly surveys will have to be set up, in order to produce annual national accounts and short-term indicators. This system will be based on sample surveys. The questionnaire for the yearly survey will be more detailed than in the first benchmark survey and will include capital consumption and more detailed inputs and outputs. The quarterly questionnaire may include such indicators as production volume, turnover, employment, exports, hours worked and energy consumption.

Agriculture census

The agriculture sector contributes at least one third to GNP and employment. 70% of the Palestinians are considered as rural and their living conditions are largely based on agricultural production. PCBS has to build up a suitable database on agriculture in order to improve and develop the basis for agricultural planning. This necessitates an agricultural census.

An agricultural census should provide the following data:
- Land tenure to specify the type of land property, number of persons per family and cultivated and uncultivated area
- Agricultural employment
- Land use, i.e. field crops, vegetables, grass, horticulture and fallow area
- Production of crops, inputs (fertilizer, fodder etc.)
- Livestock, including cattle, sheep, goats, poultry, draught animals (all by type), fish and bees
- Agricultural building and equipment
- Agricultural practices (irrigation methods, source of generating power, transportation media, fertilizers and insecticides, marketing, sources of financing)
- Value added in the agricultural sector.

The agricultural census will be the basis of an agricultural statistics system, comprising:

- Agricultural production and employment statistics
- Agricultural capital formation statistics
- Agricultural price statistics
- Livestock statistics.

The idea is that PCBS will conduct livestock surveys twice a year, price surveys and capital formation surveys once a year and crops production surveys according to a schedule that still has to be determined.

It is recommended:
1. That building up a proper system of economic statistics starts with taking an inventory of establishments, covering all sectors of the economy (except agriculture) and the entire WBGS area.
2. That this inventory is the nucleus of a business register, to be regulated by a separate law.
3. That the business register will be the basis for subsequent economic benchmark surveys, starting with the producing industries, followed by the trade and services sectors.
4. That the benchmark surveys are the basis for a future National accounts framework
5. That subsequently a system of annual and quarterly sample surveys is put in place, enabling the regular compilation of annual national accounts and short-term indicators.
6.That an agricultural census is organized, resulting in benchmark figures for the agricultural sector and a register of agricultural holdings.
7.That the register of agricultural holdings will be the basis for a system of subsequent annual and more frequent agricultural sample surveys.

Area statistics

General

In principle, most statistics have a regional aspect. Linking basic statistical data with a Geographical Information System (GIS, a digital register of geographical coordinates, an 'electronic map') enhances the possibilities for geographical analysis enormously. However, such a GIS-system is very costly, both in terms of investing in the creation of the digital base and in terms of operational cost. At a more modest level (e.g. administrative geographical units, such as municipalities, districts or provinces, or topographical squares of a certain size), regionalizing statistics is also very useful, and indeed necessary.

Some types of statistics for which the regional or 'area' aspect is essential are, e.g.:

- Land use statistics (used for different sorts of physical planning and monitoring the environment);
- Statistics on infrastructure (roads, telephone lines, sewers, pipelines etc., also used for physical planning purposes); and, perhaps most importantly
- Environmental statistics.

Whether environmental statistics are a priority area of work depends very much on the political agenda of a country. A system of environmental statistics normally encompasses: statistics on the state of the environment (wildlife, flora, quality of air, soil, surface water, ground water), statistics on natural resources, statistics on pollution (emissions of gases, waste, manure), statistics on activities to protect or ameliorate the environment, statistics on cost of environmental protection.

Some detailed regionalized statistics for Palestine may be produced on the basis of the Agricultural Census (land use) and the Community Survey and the related mapping project (infrastructure, such as roads, sewage systems, electricity and water supply systems, public buildings and other facilities). Moreover, the Community Census will also produce some basic information for a future system of environmental statistics (water quality, garbage disposal systems).

It is recommended:

1) To discuss priorities for area statistics with relevant authorities;
2) To produce some specific regionalized statistics on the basis of the Agricultural Census and the Community Survey.

Summary

For Population Statistics, it is proposed:

1. That a system of population statistics be based on a central register of population, established by law, including the procedures to update it with births, deaths and migration.
2. That a campaign to improve and update the existing population register is planned and carried out as soon as Palestinian control of occupied territory is fully established.
3. That a full scale census of population and housing is then planned for some years later, and
4. That a fairly large demographic survey be carried out as planned if needed as a stopgap measure if the process toward full Palestinian control of all occupied territory is delayed.

For Social Statistics, it is proposed:

1. That a system of social statistics for Palestine be based on administrative records from the sectors of social concern integrated with the system of population statistics and combined with surveys;
2. That a national household survey capability program be built on the nucleus provided by the existing data collection infrastructure for the Labor Forces Survey;
3. That the data collection for the Labor Force Survey is immediately continued to maintain its capability;
4. That a household expenditure and consumption survey is planned for, to be conducted at the earliest possible moment;

5. That the household expenditure and consumption survey is conceived as the first independent module in a comprehensive social indicator Survey to be continuously conducted.

For Economic Statistics, it is proposed:

1. That building up a proper system of economic statistics starts with taking an inventory of establishments, covering all sectors of the economy (except agriculture) and the entire WBGS area.
2. That this inventory is the nucleus of a business register, to be regulated by a separate law.
3. That the business register will be the basis for subsequent economic benchmark surveys, starting with the producing industries, followed by the trade and services sectors.
4. That the benchmark surveys are the basis for a future National accounts framework
5. That subsequently a system of annual and quarterly sample surveys is put in place, enabling the regular compilation of annual national accounts and short-term indicators.
6. That an agricultural census is organized, resulting in benchmark figures for the agricultural sector and a register of agricultural holdings.
7. That the register of agricultural holdings will be the basis for a system of subsequent annual and more frequent agricultural sample surveys.

For Area Statistics, it is proposed:

1) To discuss priorities for area statistics with relevant authorities;
2) To produce some specific regionalized statistics on the basis of the Agricultural Census and the Community Survey.