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SOCIAL AND DEMOGRAPHIC STATISTICS

FRAMEWORK FOR THE INTEGRATION OF SOCIAL AND DEMOGRAPHIC STATISTICS IN DEVELOPING COUNTRIES

A draft framework for the integration of social and demographic statistics for developing countries

Report of the Secretary-General

SUMMARY

At its seventeenth session, the Statistical Commission discussed the reports of the Statistical Office and of the Conference of European Statisticians on the development of a System of Social and Demographic Statistics (SSDS) and recommended that a draft version of a system suitable for use by developing countries be prepared. At its eighteenth session, some questions were raised about the usefulness of such a separate system, and it was suggested that the greater need in developing countries might be for improvement and systematization of social statistics. Nevertheless, the preparation of a draft version was endorsed. This document presents a draft framework for the integration and analysis of social statistics for developing countries, based on the selection and adaptation of material from the United Nations publication, Towards a System of Social and Demographic Statistics. The draft framework is intended to provide guidance to developing countries on approaches to improvement and integration of social statistics which it may be feasible for developing countries to apply in the medium-term future, consonant with their statistical and social circumstances and priorities for improving the welfare and living conditions of their populations. The approach presented is one of step-by-step integration and systematization of social statistics and social indicators, fully integrated with the continuous development of the required basic statistics in the social,

demographic and related fields. The document does not propose new methods or definitions for social statistics but rather presents a framework for co-ordinating and harmonizing concepts and classifications based on existing recommendations and guidelines of the United Nations and its specialized agencies.

Part one of this document considers the feasibility and usefulness of a framework, how it might be designed, and the role of social indicators. Part two reviews each field of statistics included in the framework in terms of contents, concepts, organization and priorities appropriate for developing countries. The annexes present illustrative series, classifications and social indicators for each field, references to classifications, a history of work on the framework and further general references.

The Commission is invited to comment on the document and to propose what further action should be taken.

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Annexes

INTRODUCTION

1.   At its seventeenth session, the Statistical Commission discussed the reports
of the Statistical Office and of the Conference of European Statisticians on the
development of a System of Social and Demographic Statistics (SSDS), and considered
that the full version of this system was too complex for use by the developing
countries. It considered that some of its concepts and series were not suited to
the circumstances of the developing countries, and that it would not be practicable
for them to evolve a number of parts of a full system in the foreseeable future.
The Commission therefore recommended that a draft version of a system suitable for
use by the developing countries be prepared. 1/ The question was again considered
at the eighteenth session, where, in addition to this position, an alternative view
was expressed that SSDS should be considered simply as a process of systemization
and that the immediate objective was to improve social statistics, keeping the full
SSDS as a long-term goal and using it as a frame of reference. Nevertheless, the
Commission welcomed the preparation, then in progress, of a version of SSDS adapted
to the needs of developing countries, and agreed that it should be considered at
the nineteenth session. 2/

2.   This document 3/ presents a draft framework for the integration and analysis
of social statistics for developing countries, based on the selection and
adaptation of material from the United Nations technical report on an SSDS, Towards
a System of Social and Demographic Statistics. 4/

3.   The draft framework is intended to provide guidance to developing countries on
approaches to the integration of social statistics which it may be feasible for
developing countries to apply in the medium-term future. For this purpose the
methodologies, concepts, classifications and examples presented in Towards a System
of Social and Demographic Statistics are reviewed and summarized, with a view to
their adaptation and application in developing countries, consonant with their
statistical and social circumstances and priorities for improving the welfare and
living conditions of their populations. The approach presented is one of step-by-
step integration and systemization of social statistics and social indicators,
fully integrated with the continuous development of the required basic statistics
in these and related fields. The emphasis is on a flexible framework and a process
rather than on a rigid or inflexible "system" to be "adopted" and "implemented" in
full. This emphasis was strongly endorsed by the Expert Group on Social Statistics
and a System of Social and Demographic Statistics for Developing Countries which
met at United Nations Headquarters from 17 to 21 November 1975. The Expert Group

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1/ Official Records of the Economic and Social Council, Fifty-fourth Session
Supplement No. 2 (E/5236), para. 116.

2/ Ibid., Fifty-eighth Session, Supplement No. 2 (E/5603), paras. 82-85.

3/ Prepared by Professor S. Chakravarty (Planning Commission, India) acting
as consultant to the United Nations.

4/ United Nations publication, Sales No. E.74.XVII.8.

particularly noted that the framework does not propose new methods or definitions for social statistics but is rather a framework for co-ordinating and harmonizing concepts and classifications in accordance with existing recommendations and guidelines of the United Nations and the specialized agencies and for exploring improvements or adaptations which might be made to these. 5/

4.   The draft framework is complementary to "Promoting the improvement of social statistics in developing countries" (E/CN.3/482), also before the Commission and also considered by the Expert Group. The latter agreed the two documents should be closely linked and perhaps ultimately combined, and should be prepared with a view to the needs of national statisticians, planners and policy makers. Great care should be taken to ensure consistency between the two. 6/

5.   This document is divided into two parts. Part one considers the feasibility and usefulness of a framework for the integration and analysis of social statistics for developing countries, the scope and priorities of the framework presented here, and its design, organization and possible applications, including the selection of social indicators. 7/ Part two considers concretely each field of statistics of the framework in terms of content, concepts, organization and priorities appropriate for developing countries. For most of these fields, the table in annex I shows illustrative series, classifications and social indicators which developing countries may consider in planning and implementing a framework to meet their planning and other requirements for integrated social and economic data and indicators in the various socio-economic fields.

6.   Annex II presents in summary form references to illustrative classifications which may be used in a framework, based largely on existing international guidelines, and correlated with the table in annex I. Annex III summarizes the historical background of the document. Annex IV gives references of particular interest for the development of a framework for the integration of social statistics for developing countries.

I.   ACTION BY THE COMMISSION

7.   The Commission may wish to comment on the relevance, scope, feasibility, usefulness and appropriate distribution of the draft framework for developing countries and propose what further work should be undertaken. In doing so, it may wish to take account of the related documents also before it for consideration: "The feasibility of welfare-oriented measures to complement the national accounts and balances" (E/CN.3/477); "Promoting the improvement of social statistics in developing countries" (E/CN.3/482); "Draft guidelines on social indicators" (E/CN.3/488); and "Strategy for further work on a System of Social and Demographic Statistics" (E/CN.3/489).

5/ Report of the Expert Group (ESA/STAT/AC.3/2).

6/ Ibid., para. 38.

7/ Social indicators are discussed in more detail in a related paper before the Commission, "Draft guidelines on social indicators" (E/CN.3/488).

Part one: development and applications of a framework

II. OBJECTIVES AND USES

8. In developing guidelines for a framework for the integration and analysis of social statistics and social indicators for developing countries, it is very important to be clear as to the objectives that these statistics are expected to serve. From the viewpoint of many developing countries, the first question that needs to be answered is the importance of social statistics relative to economic statistics. For a very large number of developing countries, the linkage between economic statistics and the formulation of policies is particularly close, but the current state of economic statistics is not yet particularly satisfactory. In this situation, the question is whether it is not going to be counterproductive to try to implement a comprehensive system of social statistics at this stage. The question is a very legitimate one, especially if one takes into account the limited resources at the disposal of many developing countries for improvement of their statistical systems. Put differently, the problem appears to be one of deciding what constitutes an optimum distribution of the budget, including financial, physical and human resources, in collecting statistics of different types.

9. The word "optimum" suggests that there is an underlying criterion function, based on an assessment of costs and benefits, which the statistical offices are trying to maximize. While it goes without saying that no statistical office operates with an explicit criterion function, there is little doubt that many of them implicitly use such a concept in assigning priorities. It is, therefore, useful to consider whether the criterion function implicitly assumed does not need to be stated explicitly and whether any alterations in it are called for.

10. When economic development came to occupy a very important position in the thinking of many national Governments, the problem was largely seen as one of increasing the level of national income and product per capita, and statistical offices in developing countries began working seriously on constructing national income and related totals. This also led at a subsequent stage to the construction of input-output tables not merely as a way of improving the accuracy of national income estimates but also as a part of formulating internally consistent production plans at the industry level under conditions of relative structural rigidity. Data on balance of payments and money supply date back to earlier periods for obvious reasons. With an overwhelming degree of emphasis being placed on the formulation of development plans centring round production data, it was only natural that social statistics came to occupy a relatively subordinate place, although certain countries tried to secure data on levels of living etc. through carefully designed multisubject sample surveys. Demographic statistics were given attention in connexion with formulating decennial censuses. Social and demographic statistics were also used as background material for computing national income estimates and for a variety of governmental uses.

11. The conception of the development problem has, however, undergone some change in the course of the past few years. In developed countries, there is a great deal

of dissatisfaction with conventionally measured gross national product (GNP) as an index of economic welfare. Various proposals have been made of measures of economic welfare which would describe changes in the quality of life more accurately than GNP. 8/ While much of the criticism of GNP in this regard is misplaced since it was not meant as a welfare indicator, although under certain restricted conditions it may be used as a measure of socio-economic performance, there is little doubt that in affluent societies problems of external diseconomies, reflected in pollution, congestion etc., as well as the much greater role of government in providing non-market services and unrequited transfer payments, do call for supplementary measures which can be linked with the national accounts data to yield a more balanced picture of the performance of the socio-economic system. It is, therefore, quite understandable that social statistics should acquire a much greater degree of importance for developed countries at this historic juncture.

12. For developing countries, the argument for increased emphasis on social statistics cannot be sustained by the argument that the costs of growth are proving too much, since production and income in most of them are not growing at rates which are regarded as desirable. A rapid increase in gross domestic product (GDP) per capita is an urgent necessity for all of them. Why, then, should we emphasize a shift in matters relating to statistics? There are two principal reasons why this shift is very desirable. First, there is a growing recognition that economic growth cannot be achieved merely by an increase in material capital investment. The importance of human capital is now widely recognized as a major contributory factor to the growth process. Data on human capital require adequate information on matters related to education, health and housing. Secondly, there is a much greater degree of awareness of problems connected with inequality in income or in the distribution of the benefits of public expenditure. For example, it has been found that because of the failure to distinguish between inputs and outputs in areas such as health and education, and also because of the existence of dominant pressure groups in societies, an increase in the amount of public expenditure in such areas often leads to the opposite of expected results when measured by egalitarian norms.

13. In addition, the problem of population growth is once again at the centre of attention. While attitudes vary a great deal among the developing countries in matters relating to family planning, there is no doubt that whether countries

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8/ These criticisms are not altogether new. Many of them were made quite clearly by Simon Kuznets in his early writings on national income. What has happened of late is that there has been a much greater degree of awareness on the part of users of national income statistics that it is necessary to consider structure and distribution, as well as totals. There is also much criticism about the way the production boundary is conventionally drawn and also of the failure to distinguish "goods" from "bads" in output. Promising attempts to reformulate the aggregate measures to take these criticisms into account have been made by J. Tobin and W. D. Nordhaus, "Is growth obsolete?" reprinted in Measuring Economic and Social Performances, M. Moss, ed. (National Bureau of Economic Research, New York, 1973). An extended review of work in this area may be found in "The feasibility of welfare-oriented measures to complement the national accounts and balances" (E/CN.3/477), also before the Commission.

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want to accelerate population growth rates or want to decelerate them, important
structural adjustments are called for in planning for such changes. Countries
undergoing sharp declines in birth-rates will be faced with the socio-economic
consequences of an aging population whereas those that are experiencing rapid
increases in growth rates consequent on reductions in mortality are faced with
a rising dependency ratio, a phenomenon which inhibits savings and economic growth.
As in the case of health and education, failure to ensure diffusion of family
planning benefits can lead at least in the medium run to increased inequalities
in the distribution of incomes.

14. For accelerating growth in national income and also for ensuring a wider
diffusion of the benefits of the growth process, it has, therefore, become quite
important to attach greater importance to social statistics. However, as this
analysis makes clear, to implement a comprehensive statistical framework covering
social phenomena for developing countries, the focus of attention will have to
differ from that in developed countries, both because of differences in their
requirements and because of differences in structural characteristics. In
chapter III below, the design and organization of a framework, including priorities
appropriate for developing countries, will be discussed. In chapter IV the special
role of social indicators in a framework for developing countries will be analysed.
In addition, there are obvious questions concerning implementation which will be
taken up in chapter V.

III. DESIGN AND ORGANIZATION

15. Once the need for collecting social statistics in developing countries is recognized, it becomes important to think of a possible integrating framework within which such statistics can be collected. It is necessary to think in this context of alternative ways of approaching the problem. The approach presented in the recent publication of the United Nations entitled Towards a System of Social and Demographic Statistics 9/ provides a very convenient starting point for discussing the issue.

16. The approach outlined there has been criticized as too ambitious for developing countries, and perhaps too inflexible and systems-oriented as well. The latter argument has been put forward by those who consider that the most useful approach to improving social statistics would lie in attention to the basic data through such measures as conducting carefully designed sample surveys and a more effective use of censuses and administrative records, rather than what they call premature systematization. The former argument has been made by those who think that the urgent requirement is for specific data covering particular concerns.

17. What is at issue here is whether the search for an integrating framework should be replaced by a conscious decision to rely on data focusing on an ad hoc basis on the issues that may be prominent at any given point of time. The principal argument here is that as there is no comprehensive agreed theory of social action with measurable parameters to serve as a theoretical framework, it is not possible to devise a systematic approach to social statistics. The analogy with economic accounts is considered not to hold since economics deals with a class of phenomena which can be relatively easily isolated from other social activities (though this is less true in many developing regions where subsistence agriculture predominates). Furthermore, the system of national accounts basically rests on the concept of the circular flow of incomes, a subject on which the understanding gained by economists has a long history. No analogous theory has been developed which encompasses a similarly wide range of social phenomena. This argument concludes, therefore, that it would be most prudent to concentrate on getting such information as we specifically need through sample surveys or from other sources without reference to any over-all framework.

18. There is no doubt that at the moment there is no comprehensive theory of society which is widely agreed to, let alone statistically implementable; but the real question is whether we need such a theory for developing a comprehensive, interlinked framework for social statistics, and whether, if developed, it would not be complementary to rather than incompatible with an emphasis on collecting basic social statistics.

19. As a starting point, it can be agreed that social statistics are expected to deal very largely with human beings, either as individuals or in

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9/ Sales No. E.74.XVII.8.

various groups. The framework in <u>Towards a System of Social and Demographic Statistics</u> has been constructed by according primary emphasis to demographic accounting as the key system around which individual sequences and subsystems are developed. This emphasis would appear to be appropriate for two principal reasons. First of all, it is clear that if social statistics are primarily about human beings, the basic emphasis has naturally to be given to recording human stocks and flows over time. Secondly, by presenting systematic demographic data, it is possible to take advantage of well-developed techniques and substantial experience in demography to begin to systematize other social statistics.

20. To do this it is necessary to define the states or characteristics to be analysed, in the context of the basic social problems of the developing countries. In addition to the demographic field, there are at least five major areas of concern on which there would appear to be a great measure of consensus among the developing countries. These are education, employment, health and nutrition, distribution of income, consumption and accumulation and, to a less but an increasing extent, housing and its environment.

21. As most countries are faced with adjustment problems in the wake of considerable migration from rural to urban areas as well as rapid population increases from high birth-rates in urban areas, the issues relating to urbanization also figure prominently in many discussions. In the data series, it is, therefore, necessary to adopt an urban-rural classification to understand the nature and scope of the urbanization that is taking place as well as to facilitate discussions on investment planning in relation to the stated aims of social policy. The urban growth that is currently taking place in many low-income developing countries also raises important questions relating to the type of development strategy that is currently being pursued. Hence, a framework for social statistics for developing countries will need to pay adequate attention to the question of urbanization. Data relating to distribution of city sizes will also be required in the case of the larger developing countries. A number of types of statistics and indicators directly concerned with urbanization are discussed in part two below.

22. Besides the six basic fields listed above, <u>Towards a System of Social and Demographic Statistics</u> deals with social stratification and mobility, families and households, social security and welfare, and public order and safety. There is no doubt that these areas are of considerable importance for the developed countries, but they are likely to be less so for developing countries. Hence, these areas are discussed much more briefly in part two below.

23. The question of time and leisure, the remaining field dealt with in <u>Towards a System of Social and Demographic Statistics</u> is an interesting one. Basically, time can be looked at in terms of quantity or in terms of price. In developing countries, the question of disposition of time is fundamentally different from that in developed countries. It is most natural to look upon time in these latter situations as a quantity. It is useful to note that for this reason time-use budgets are usually dealt with in connexion with data on

underemployment, especially so-called "visible underemployment". Existence of much visible underemployment deprives the question of leisure time of any independent policy significance except in regard to matters pertaining to cultural policy.

24. On the other hand, it has been observed in recent years in developed countries that time may more appropriately be regarded in terms of price. Here, man-hours worked can be regarded as a value rather than as a quantity. The treatment of leisure time in post-industrial societies, therefore, assumes a very different complexion and it is necessary to deal with the problem in a relatively extensive way. In developing countries with an extensive agricultural sector and a tertiary sector based to a considerable extent on the decomposition of the older mode of social organization, it is not necessary to deal with time as an independent field of social statistics, even though the time dimension should be indicated in certain areas where it is important, such as employment, or access to important services or facilities. Hence, the time dimension is taken up as one aspect of statistics and of concern in several of the fields dealt with in part two below, but is not discussed as an independent field.

25. This outline of a framework for social statistics for developing countries generally coincides with the policy-makers' identification of problem areas to which they attach a great deal of importance. Secondly, these are areas where structural changes are often projected but because of the absence of requisite data and analysis, actual performance often turns out to be substantially different from what was originally contemplated. Consider the case of education, for example. In this area, the demand side of education is often considered in isolation from the supply side. This may lead to unbalanced expansion of education with higher stages recording a much faster rate of expansion than the elementary stages. It is possible to argue that these results reflect political choices which would have remained unaltered even if more data were available. However, the case does not appear to be proven.

26. Thirdly, these are also areas which have very close links with the system of national accounts either on the output side or on the input side. Implementation of linkages between these fields will, therefore, lead to considerable improvements in data which have so far been a relatively neglected part of national accounting. Fourthly, substantial amounts of financial and material resources are often needed in implementing programmes relating to the main areas outlined above. The need for determining cost-effective solutions is correspondingly quite great. Fifthly, these are areas where some statistics are currently being collected as by-products of various administrative activities. Hence, with some additional effort, suitably organized, significant improvements can be made.

27. Finally, we should note that one of the basic objectives of a statistical programme is to permit adequate formulation of testable hypotheses for research and analysis which may ultimately lead to substantial improvements in potential policy effectiveness. If, for example, demographic data are considered alongside data on education, health, urbanization and distribution of income, it may be possible to infer what factors are operative in determining the crucial variable in the population growth process, such as the fertility rate, or the type of educational policy that would be most effective in improving the distribution of income.

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IV. SOCIAL INDICATORS

28. How important are social indicators as a part of a framework for social statistics for developing countries? Should the initial emphasis be put on a large number of social indicators covering all the major areas of social concern at any given point of time or should we be selective with regard to areas as well as with regard to the number of indicators that will need to be developed?

29. The question is of some importance as in recent years we have witnessed a great deal of interest in the subject by both research workers and policy planners. Impetus to the work has come from several disparate sources. One of them relates to the dissatisfaction felt by many over the pattern of growth experienced in both developed and developing countries, which, in the absence of comprehensive social statistics, made people look for indices pertaining to aspects of social life which had received little attention until that time. This is related to the question of measuring and evaluating the performance of a social system and has already been touched upon in connexion with the treatment of gross national product as an indicator of welfare. The second source of inspiration has come from a feeling expressed by some social scientists that over time it may be possible to formulate in quantitative terms analytical models pertaining to the functioning of a particular society which could help in prediction and policy making. In other words, their idea is to develop a quantitative macrosociology analogous to macroeconomics. Social indicators are considered from this point of view as analogues of macroeconomic aggregates. This second idea is an exceedingly ambitious one and, as of today, conceptual problems would appear to be rather formidable. Finally, there has been a general feeling that while many social statistics were collected as routine by-products of carrying out the work of government, not enough was being done to focus attention on what was relatively essential. Hence the need arose to collect data which would measure relatively accurately changes taking place in certain areas of social concern.

30. The position that has been adopted in this report is a pragmatic one which does not compel one to subscribe to any one particular view at this stage of our knowledge. This also corresponds to the position taken in Towards a System of Social and Demographic Statistics, where the approach is summarized as follows: "Social indicators relate to some area of social concern and they may serve the purposes of curiosity, understanding or action. They may take the form of simple data series or they may be synthetic series obtained by applying a greater or lesser amount of processing to data series. At any particular time, it may not be possible to construct all the indicators that would be desirable and this limitation should be kept in mind. Social indicators form a subset of the data series and constructs actually or potentially available and are thus distinguished from other statistics only by their suitability and relevance for one of the purposes mentioned" (para. 5.8).

31. This would appear to be a very judicious statement in many respects, particularly because it places social indicators fairly clearly within a framework for the integration and analysis of social statistics. In other words, it dispels any possible misunderstanding that may exist in regard to establishing a "system" of social indicators as a parallel to a "system" for social statistics.

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32. However, the definition of social indicators in <u>Towards a System of Social and Demographic Statistics</u> is rather wide and if not used with caution may lead to a great deal of proliferation of social indicators. Even here, selectivity would appear to be very important. In this respect, the areas of social concern for which indicators are sought should preferably correspond to the areas which have been highlighted in connexion with the articulation of the main framework itself. As a secondary purpose for social indicators, some emphasis may be given to developing a relatively few internationally comparable social indicators to throw light on the possible patterns of socio-economic development that may be pursued. Finally, for countries having sufficient diversity, social indicators may also be developed on a regional basis, so as to facilitate diagnosis of regional problems and the formulation of remedial policies.

33. Social indicators may be constructed using, for example, any one or a combination of the following methods drawn from social statistics: (1) proportions, percentages, ratios, rates; (2) means, medians; (3) measures of dispersion, including range, fractiles, mean and standard deviations, skewness, kurtosis and the Gini coefficient; (4) factor analysis; (5) index numbers; (6) linear programming; (7) life expectancies; and (8) surveys of public opinions and attitudes. It would appear that while in most fields simple indicators may be the only ones for which the state of the data would permit calculations within a reasonable range of accuracy, even here there may be cases where considerable ingenuity may need to be employed. For example, the existing data may be far too limited to permit of any meaningful construct using conventional procedures, or the reality may be too complex to be captured within the set of classifications and concepts normally used. The use of special techniques to adjust defective fertility and demographic data of developing countries is an example of how these problems may be dealt with. 10/ Life expectancies are not at the moment widely used for constructing social indicators. However, it is useful to bear in mind that the method can be fruitfully used to study "any imaginable changes of state", and not merely the conventional one connected with the biological length of life. 11/ The two obvious examples given in this regard are education and health. This generalization would appear to be very valuable and may be employed in constructing some very useful social indicators. Obviously, the data requirements are much larger, but equally clearly, the payoffs are also much larger.

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10/ It may be noted, however, that factor analysis and other similar techniques involving scaling and weighting of series do not impose any unusual data requirements peculiar to them, and hence can be performed by using various existing series or indicators as inputs. See, for example, D. V. McGranahan et al., <u>Contents and Measurement of Socio-economic Development</u>, United Nations Research Institute for Social Development, Research Report No. 70.10 (Geneva, 1970), and J. Drewnowski, <u>On Measuring and Planning the Quality of Life</u> (Mouton, The Hague, 1974).

11/ <u>Towards a System of Social and Demographic Statistics</u>, para. 5.42.

34. Some additional very useful social indicators would be measures of dispersion, or of type (3) (see para. 33), whether in reference to income or to any other variable defined in terms of homogeneous units. These measures are not discussed in Towards a System of Social and Demographic Statistics, but many of the data series illustrated there are set up so as to enable their ready calculation. Such measures are likely to prove very useful, especially when there is so much contemporary interest in developing countries in matters relating to social justice, equity and equality.

35. One indicator commonly used for these purposes is the Gini coefficient, which is obtained from underlying data which may relate to income, wealth or land-holdings, for example. However, as has been pointed out in recent discussions on the measurement of inequality of incomes, this measure has certain technical characteristics which limit its interpretation and analysis. 12/

36. However, there is no reason why one may not use the Gini coefficient as one of the measures. Hence, if it is used it may be supplemented with measures such as those based on shares going to different fractile groups such as the lowest sixth or third of the population.

37. This will at least serve the purpose of focusing attention on evolving policy measures directed at specified target groups. In no case should we allow the difficulties stated above to stand in the way of providing information relating to distribution. The difficulties pointed out should be used as cautions that may be borne in mind by the users of statistics. Inequality measurement is taken up again below in chapter IX.

12/ See A. B. Atkinson, "On the measurement of inequality", Journal of Economic Theory, vol. 2 (1970), which follows up and extends the work carried out by H. Dalton in the 1920s. See also subsequent contributions by Das Gupta, Sen, Starett and Stiglitz in the same Journal. A fairly exhaustive discussion of the question of measurement of inequality by D. G. Champernowne has appeared in Economic Journal, December 1974.

V. IMPLEMENTATION AND APPLICATIONS

38. It has been indicated above that a framework for the integration of social statistics and social indicators may serve a very useful purpose for developing countries by promoting efforts towards systematization of data which at present are widely scattered, and through influencing information feed-back to and between different agencies of government dealing with different aspects of economic and social planning.

39. This last aspect deserves very considerable emphasis in the formulation of development plans for many developing countries. To date, most of these plans have been focused on the rate and composition of growth defined in the conventional economic sense of the term. This has doubtless provoked a considerable amount of criticism in recent years, but an attempt to replace GDP by some other scalar index of welfare is likely to prove an unilluminating exercise with very little operational content. What one requires is a disaggregated picture in terms of different social groups and a multidimensional concept of welfare for each group with a corresponding specification of instruments of economic policy. The planner's job would consist in assigning appropriate instruments to each objective or dimension after allowing for the differential impact of a particular objective on the welfare levels of different groups.

40. At this stage the data base for carrying out such an exercise is in inadequate for most countries, though there are wide variations among developing countries in the quality, detail and scope of the available data as well as in collection resources and experience. The framework suggested here can play an important part in organizing the provision of a large part of the missing information, and it is a flexible framework which can be elaborated from a relatively simple basis in countries with more limited statistical resources, to a relatively substantial scale in other countries, and as country resources are strengthened.

41. In many developing countries, the fields of statistics which are likely to prove most relevant are employment, income, consumption and accumulation, health and nutrition, education and, to a less extent, housing. In each case, the information that is needed has two parts, a distributional part dealing with who enjoys how much in terms of a specified characteristic, and an input part, dealing with the use and allocation of scarce physical and human resources. There is in addition a financing part, dealing fundamentally with availabilities for different target groups. The framework discussed here can provide valuable information relating to the distributional aspects and on the second part dealing with input requirements. As regards the financing part, clearly social data must be employed in conjunction with economic data from the national accounts and elsewhere. It is only through combined use of the data from the social and economic spheres that one can implement more satisfactory models of planning.

42. While planning uses of the framework presented here are likely to interest policymakers, it is also important to mention that the analytical possibilities are very considerable. Behaviour of even crucial economic variables often depends in important ways on data which are conventionally placed outside the scope of economic

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statistics. Perhaps the most striking examples are provided by the rate of population growth and the distribution of income, which can rarely be satisfactorily explained by using conventional economic indices alone. An integrated approach to social statistics may provide insights into many important linkages which can substantially enrich our understanding and lead to better predictions and remedial actions. The use of various simulation models may prove quite rewarding in this regard, both as tests of the data collected and for suggesting additional linkages that may need to be explored.

43. In terms of collecting data, the first priority should be to build up bench-mark data for each major area of concern in as comprehensive a manner as possible. For describing the changes over time, it may be necessary to resort to periodic surveys on a probability sampling basis when normal administrative agencies do not generate the necessary data routinely. In cases where data are available through the administrative agencies, they will need to be standardized so that changes in levels over time can be measured with some precision and so that they can be compared with related data in other fields.

44. As regards the question of collecting stock data as against flow data, clearly stock data are often much easier to collect. For a few basic variables such as population, a relatively complete set of data is desirable, which will require computation of gross flows to link it with many of the other fields of social statistics. In most areas, however, the relevant question is whether changes in policy are being envisaged which require information on gross flows. If the basic emphasis is on policy formulation, then the question of stocks vs. flows will often resolve itself in a more natural way. Similarly, the question of defining the relevant states of the system can be meaningfully answered only in relation to a well specified model of social planning of which economic planning in the conventional sense will form only a part, even though the most important part at the present stage of development for most developing countries. Finally, social indicators are obviously important as a component part of the framework presented here. These help the general public, planners and decisionmakers in identifying problem areas and, as summaries of some of the basic data of the system, can help to clarify its data requirements, structure and results.

Part two: individual fields of statistics

45. An account has been given of a conceptual framework to underlie a programme for integrating social statistics for developing countries. It has also been noted that while the logical foundations set forth in Towards a System of Social and Demographic Statistics remain valid, the approach needs to be adapted and simplified to suit the requirements of developing countries. The need for adaptation arises for reasons of policy, but no less urgently for dealing with certain conceptual problems in a manner more appropriate to the structural features of a developing economy. In the chapters below, we shall deal with each of the major fields of social statistics, emphasizing structure, concepts and priorities relevant for developing countries. These major fields are population, education, employment, distribution of income, consumption and accumulation, health and nutrition and housing. In chapter XII, we shall deal with the remaining fields. These secondary areas are sketched out only in summary fashion in the context of the developing countries, as they are not considered priority areas for statistical development in most of these countries in the medium-term future.

46. Each of the fields of statistics is discussed individually in the chapters below. For each field, there is a correlated panel in the table in annex I showing illustrative basic series, classifications and social indicators for developing countries to consider in planning and developing the integration of their social statistics. The illustrative classifications in particular are useful as integrative devices when applied uniformly throughout the framework. References to existing international guidelines on classifications are summarized in annex II. While there is nothing rigid about these tables, they have been drawn up after careful consideration of current international guidelines and common country practices, and show the statistical requirements of a relatively comprehensive framework, and classifications and social indicators which would be useful for policy planning, analysis and decision-making in the fields of welfare and social development covered. It is of course recognized that no country is in a position to "implement" all of these tables in the foreseeable future, nor would it necessarily be desirable for any country to do so. What is intended is that there be sufficient material presented in the tables, organized in the framework suggested here, for each country to be able to make a selection which best balances its own national priorities and circumstances. The tables provide a relatively comprehensive basis for considering priorities, and, once such selections have been made, they should be useful in planning, compiling and using the data in an integrated and efficient way.

VI. SIZE AND STRUCTURE OF THE POPULATION

47. In Towards a System of Social and Demographic Statistics, demographic data enter the system in two ways. First, principles of demographic accounting are used to establish a basic organizing structure for the parts of the system that deal with human stocks and flows. These principles are set out in chapters III.A. ("Social demography") and VII ("Models of human stocks and flows") of that publication. They revolve around the stock-flow matrix, from which models of the population can be constructed wherever outflow coefficients (transition proportions) and inflow coefficients (admission proportions) can be obtained and can reasonably be expected to remain constant. It is evident that application of this approach will be quite limited for some time to come in developing countries, owing to limited data and to the rapidity of social change, which makes the assumption of constant probabilities inappropriate.

48. Secondly, the demographic characteristics of populations are important in any general framework of social statistics because some of these characteristics are themselves frequently the subjects of social concern, public interest and even of social policy. The exact subjects of concern and certainly the extent, if any, of public intervention contemplated in regard to them, vary considerably among developing countries, but several basic topics are common to most of them. These are size and age structure of the population, its distribution and density among geographical and urban and rural areas and changes in these, and the natural and net rates of population increase and their components in terms of rates of birth, death and migration.

49. In panel I of annex I, series, classifications and social indicators to illustrate the statistical content of this field are shown. The two foci of concern in this field are size and change in population, and geographical distribution of population. For each of these series, classifications and social indicators are illustrated respectively covering stocks and flows. The illustrative social indicators select from or summarize the series for purposes of welfare and/or policy-oriented (including planning) analyses of the main topics.

50. Among the illustrative classifications are sex and age, size and type of household, geographical area, urban or rural area, size and type of place, national or ethnic origin, and socio-economic class. Other important classifications, such as size and type of family nuclei and cause of death are covered in other fields.

51. In this illustrative list, developing countries, depending on their cultural development and statistical resources, are likely to face difficulties in the case of national or ethnic origin and to some extent the urban-rural distinction and size and type of place, on account of the lack of basic data and substantial differences among countries in the use and application of these classifications. However, most countries will find it useful to develop many or all of these classifications in the long run, even though it may take a little time for certain developing countries to develop and apply the basic concepts and definitions of these classifications to their own particular circumstances.

VII. LEARNING ACTIVITIES AND EDUCATIONAL SERVICES

52. Learning activities and educational services constitute an extremely important field of statistics for all developing countries. No matter whether one adopts a social demand approach or a manpower approach towards planning of education, without considering sophisticated programming approaches for the time being, it is necessary to generate a certain minimal amount of data. At one end, these data are intimately related to the demographic field of statistics defined in terms of human beings belonging to different age groups, and at the other end, they form an essential part of the input-output data pertaining to the flow of goods and services among the different productive sectors when augmented by information relating to their occupational requirements. One of the advantages of the present approach is that it permits an internally consistent framework for data presentation which links demographic statistics with statistics connected with education and manpower planning. Furthermore, by making a systematic distinction between the inputs and outputs of the education system, it provides information in a form that will help in devising cost-effective strategies for educational planning.

53. Finally, by introducing a further link between outputs of the educational system, defined as groups of individuals possessing certain qualifications, and the occupational needs of different industries, it can serve to provide possible measures of discrepancies that may arise between demand for skilled manpower and supply of skilled manpower. These discrepancies can be forecast, which will permit corrective action to be taken ahead of time. In view of the fact that unemployment among educated persons in some countries represents a significant waste of investment resources and generates social and political tensions as well, the importance of improving the data base that is required for this purpose is obviously a matter that demands careful attention.

54. In panel II of annex I, illustrative series, classifications and social indicators for use in the field of learning activities and educational services in developing countries are shown. These deal, respectively, with educational attainments, educational enrolments, and educational inputs and outputs.

55. Educational attainments is dealt with as a stock concept, that is the stock of education in the population as measured, for example, by median year of schooling completed by specified age group. Educational enrolments, full- and part-time, are also suggested in addition to flows of full-time enrolees into, through and out of various enrolment statuses. These data permit a basic model of educational flows to be built up. Inputs of educational services are dealt with in terms of the stock of teachers engaged and certain expenditure flows based on the system of national accounts. These basic data on inputs are suggested in a simplified form to permit their application in the medium term in developing countries. Finally, outputs are dealt with in terms of qualifications awarded. Each of these areas is dealt with separately below.

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A. Educational attainments

56. In the case of educational attainments of the population, the illustrative series in panel II cover the following basic topics:

(1) Years of schooling completed;

(2) Literates;

(3) Levels of education completed;

(4) Knowledge of a second language in addition to literacy in mother tongue.

The illustrative classifications shown are sex, age; urban, rural; geographical area; national or ethnic origin; socio-economic class; level and selected field of education; and in the case of level completed, kind of economic activity and occupation where applicable. From these data social indicators may be selected concerning:

(1) Median years of schooling completed;

(2) Literacy rates;

(3) Proportions having completed various levels of education, obtaining various qualifications;

(4) Percentage distributions of population according to mother tongue and knowledge of a second language.

Series relating to the mother tongue(s) and knowledge of a second language are included, as these are a particularly important concern of educational planning and cultural policy in many developing countries. They would not necessarily be relevant to all developing countries and should, therefore, be considered on a case-by-case basis in each country. Classification by kind of economic activity may be used to build up data pertaining to the educational composition of the labour force in each area of the economy. This can serve as a surrogate, even though a rather crude one, for a more extended treatment involving education, occupation and area of employment.

57. Many of the possible series and indicators on educational attainment may pose problems for developing countries because of rather thin statistical bases, particularly where time series data are desired. At present, these proportions are often available only for intervals corresponding to the frequency of census operations, and sometimes even these do not contain information in regard to items such as educational composition of the industrial labour force. In most of the developing countries, the information with regard to years of schooling and levels of education completed is of rather an uncertain character; these data may be strengthened gradually using a combination of sample survey data and administrative data on qualifications awarded by the education system to supplement and extend census data, particularly focusing in the first stages on the age groups 5-24.

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B. Educational enrolments

58. The illustrative series, classifications and social indicators on enrolments are divided into three parts in section B of panel II: enrolment proportions which are dealt with as stocks; data on enrolees and years completed, from which measures of wastage can be calculated; and series on part-time enrolments. The first two parts together provide a basic model of stocks and flows in the educational system, and a number of measures of activity and performance can be calculated from them.

59. Measurement of educational wastage is an issue which demands immediate statistical attention. Enrolment figures are the magnitudes which are generally given in setting educational targets. Yet while it is well known that in many developing countries rates of dropping out from the educational system are very high, effective retention ratios are often lacking. As a result, it becomes difficult to evaluate the effectiveness of educational expenditure. Furthermore, it is rarely known with an adequate degree of precision what the total time taken to complete a particular stage of education is, that is, the extent of repetition. In many developing countries, educational targets for the primary level of education are often given in a form which exceeds 100 per cent of the population in the relevant age group. Strictly speaking, these figures are invalid.

60. But from the practical point of view, they only represent an attempt to fit the data into an officially defined age group for repetition, on the one hand, and the enrolment of children above or below the official age, on the other. In the absence of more detailed statistics, it is not possible to know how much over-reporting is due to repetition, how much can be attributed to inaccurate reporting of age, and how much to other reporting biases.

61. To measure dropping out as well as repetition, one should devise appropriate cohort studies, derived for example from a data system based on individual records or suitable probabilistic models. Estimates obtained from these studies can be combined with demographic data to give an idea of the retention ratio at appropriately selected points. It will also enable us to devise a measure of the time that is needed on the average to complete a particular level of education. 13/

13/ A methodology and examples are provided in A Statistical Study of Wastage at School (Paris, 1972), a study prepared for the International Bureau of Education by the UNESCO Office of Statistics. The reports of the Education Projections Unit of the UNESCO Office of Statistics analyse these problems and provide a continuing review of new applications of this approach. Chapter XXIX of Towards a System of Social and Demographic Statistics also gives a number of examples from developed countries.

C. Educational inputs and outputs

62. Information on costs per student-year is another important area of statistics that needs to be developed. While it should be the ultimate objective to compute a table of economic accounts in education, at this stage it will be necessary to make do with fairly crude statistics such as the following magnitudes:

(a) Full-time teachers engaged at the various levels of education, for calculating pupil/teacher ratios;

(b) Current expenditures at each level, for calculating expenditures for students;

(c) Expenditures on capital formation in education in buildings and the like;

(d) Government payments to students and non-governmental establishments for educational purposes, to assess government support of education through unrequited transfers and grants rather than through direct operation of schools and universities.

63. If these input data can be compiled as is illustrated in section C of panel II, then, together with measures of wastage, it should be possible to work out a coefficient of effective utilization of educational expenditure. However, for a more satisfactory analysis of the productivity of the educational system, it is necessary to have output statistics pertaining to the education system. A basic measure of output would be the number of students graduating at different stages of the educational system. However, allowance will need to be made for those who do not graduate even though they may have spent several years in school. A weighted index may be constructed by allowing for the length of time spent at school. This may be done using the series and indicators shown under item 2 of educational enrolments.

64. Attempts have been made to measure output indices for different levels of education by weighting them according to differential lifetime earnings. While such measures are obviously very useful in determining how much to invest in different levels of education, and even address the more basic question of how much to invest in education as a whole as distinct from investment in material equipment, they would require much more information than it may be possible to collect in many developing countries at this stage. It will, however, be useful to make some efforts to collect information on a sample basis on this particular index of output of the educational system, to assess its productivity, as the data may suggest unbalanced expansion rates for different stages of education, as well as varying internal rates of return at the margin.

65. It should be noted that, in working out the size of an educational budget, it is necessary to distinguish between transfers and other types of expenditure. Hence in the illustrative series a distinction is made between consumption expenditures on education and unrequited current transfers. Capital expenditure on eating and lodging facilities should also be shown separately and not be merged as a part of educational services.

66. Proper costing of educational expenditure can be used to assess the extent of educational subsidies which are currently given to different classes of beneficiaries, particularly at the higher levels of education, and in certain fields such as medical or legal training. For this purpose, it is, of course necessary to adjust for the distribution of transfer payments to households.

67. Statistical analysis along these lines should be a first step in any policy planning aimed at equalization of educational opportunities, which is an important objective of human resource planning in many developing countries.

D. Classifications and implementation

68. The principal classification in this field is of level, field and programme in education. This classification and the related definitions have been elaborated in substantial detail by the United Nations Educational, Scientific and Cultural Organization as the International Standard Classification of Education (ISCED). 14/ Where education and skills are concerned, this classification is used throughout the illustrative series, classifications and social indicators in annex I.

69. The other classifications variously shown in this field are the usual ones of sex, age; urban, rural; geographical area; socio-economic class; national or ethnic origin; and institutional sector. This last would be used to distinguish public from private educational institutions.

70. Among these illustrative series and classifications, many may not be initially a very feasible proposition for most of the developing countries, but one must stress that these are very relevant for meaningful educational planning. For example, in the case of proportions of enrolees who successfully complete each year, the statistical data base is rather thin in many of the developing countries and efforts need to be made in that direction. On the other hand, good progress is already being made in this area by many countries in Africa, Latin America and Asia. In the case of the classification of teachers by level of education successfully completed, these data are likewise not often collected on a sound footing, and this often vitiates efforts to improve the performance of the educational system. This is another area which calls for improvement.

71. Summing up, we can say that while the potential scope of the learning field is quite vast with many implications for better educational planning, for developing countries emphasis needs to be placed at this stage on measurements relating to wastage and expenditures to get an adequate picture of the educational situation as well as on suggested improvements in educational planning. There is likely to be a trade-off between accuracy and comprehensiveness. For getting an accurate picture, properly designed sample surveys are called for, along with the data generated by the educational administration and by censuses. Sample studies are essential to a reasonably good description of the educational system, including its deficiencies. In countries where the machinery for collecting administrative statistics in education is weak, it may be possible to resort to sample village or sample institutional surveys, or other short-cut methods of arriving at reasonably timely estimates.

14/ ISCED; Three-stage Classification System (Paris, 1974).

VIII. EMPLOYMENT, UNEMPLOYMENT AND THE INACTIVE

A. Conceptual and statistical problems

72. The part of the framework for social statistics dealing with questions of employment and unemployment is likely to prove the most difficult one in implementation. At the same time, there is little doubt that this field is in many ways the most crucial one for a very large number of developing countries. This importance stems from a variety of reasons, beginning with problems relating to the formulation of an adequate model of growth and including those connected with designing a set of policy measures that will lead to an improvement in the levels of living of large masses of people.

73. While in the early post-war years emphasis was placed on the existence of a reserve army of labour for achieving a rapid increase in gross domestic product, of late the emphasis seems to have shifted to redistributive policies with consideration of growth taking a somewhat secondary role.

74. Since the conceptual and statistical problems of employment and unemployment depend upon the kind of policies that are being discussed, it is important to note that it would be altogether false to suggest a sharp dichotomy between growth and redistribution, especially in developing countries where fiscal measures for redistribution are very limited in scope and effectiveness. Hence, in defining measures of employment, unemployment and related magnitudes, attention must be given to measures of waste in terms of human resources as well as to structural features which define the living conditions of the different segments of the labour force.

75. The first important thing to note about developing countries is that in view of the very widespread existence of self-employment, the problem of unemployment cannot be viewed in the same conceptual frame as has been used in developed countries, where the mode of labour utilization generally takes a contractual form. Furthermore, because of seasonality in agricultural operations and the relatively low level of labour mobility, it is often grossly inaccurate to describe employment as a zero-one variable. Doubtless, states corresponding to full employment and to prolonged involuntary idleness exist, but they do not tell the full story and, in many cases, not even the more important part of the story. Employment is best seen as a continuum with end points corresponding to full employment and unemployment. This implies that underemployment defined as a class of intermediary situations must be fully taken not of.

76. Secondly, the meaning of "economically active" is also subject to considerable margins of error on account of the absence of minimum schooling requirements at one end, in terms of age, and the absence of social security measures at the other. These difficulties are compounded by the changing and unstable character of participation in production by the female members of the population. In addition, there is the much talked about case of people who have ceased to look for work altogether, because of inability to find work. All these considerations imply that the "participation rate" defining the fraction of population which is

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normally available for work needs to be worked out very carefully for developing countries, though the "labour force" concept need not be abandoned altogether. 15/

77. Failure to take account of these difficulties has often led to surveys of unemployment ending up with very small percentage figures. In India, successive rounds of the National Sample Survey produced percentage figures of unemployment which were so small as to suggest that the problem was not being approached in the right way.

78. Partly as a reaction to this, one definition of unemployment has been proposed according to which anyone is regarded as unemployed whose income is below a preassigned figure corresponding to some designated minimum level of subsistence. Such a definition has found some popular support, but it is clear that this is quite unhelpful as a measure of unemployment, both from the point of view of throwing light on the causes of unemployment as well as from the point of view of adequate formulation of policy. From the causal point of view, this measure is unhelpful because it does not indicate how people continue to subsist even when their productivity is below the so-called subsistence level. In other words, the problems relating to mode of economic organization involving work sharing, particularly in subsistence agriculture, are completely missed in this approach. From the policy point of view, it does not indicate what should be done to improve their conditions. If giving more employment is supposed to be a major instrument to bring up consumption levels, then an independent definition of employment conditions is called for. In addition, it is quite clear that in many developing countries, to provide an adequate description of the employment situation it is necessary to bear in mind the time factor as well as the income factor. To distinguish between leisure and involuntary idleness, it is necessary to have some measure of willingness to work. For considerations relating to potential "waste" a phenomenon emphasized in the early post-war literature on development, it may be necessary to get a measure of productivity as well, although in practice this will prove quite difficult. Furthermore, to get a more complete picture of how the social and economic system adapts itself to conditions of unemployment/ underemployment, it is useful to get certain data both on households and on individuals.

79. Problems of defining and applying suitable concepts of employment, underemployment and unemployment in developing countries have been under examination by the International Labour Office. As early as 1966, the conferences of labour statisticians which met under the auspices of the International Labour Organisation (ILO) adopted a set of recommendations concerning measurement and analysis of underemployment and under-utilization of manpower, which, if implemented, could have provided many valuable data in this regard. More recently, the World Employment Programme undertaken by the ILO has re-emphasized the need for developing suitable measures reflecting the structural characteristics of developing countries. While no clear consensus has yet been achieved on a feasible approach, 16/ nearly all the proposals discussed and tested have agreed on the

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15/ The limitations of the "labour force" concept as normally applied have been particularly strongly emphasized by Gunnar Myrdal in Asian Drama: An Inquiry into the Poverty of Nations (New York, Pantheon Books, 1968).

16/ A general review is provided in International Labour Office, Concepts of Labour Force Underutilisation, Employment Research Papers, Geneva, 1971.

need for relatively disaggregated data on labour utilization rather than single measures of labour force participation and unemployment. The main classifications and additional series proposed in this connexion and the needs which give rise to them are:

(a) Separate treatment of urban and rural, as the structures of employment opportunities and participation in urban and rural areas are quite different;

(b) A broad definition of employment, to include unpaid family members and other "informal" work which contributes to production;

(c) Data on hours worked, to measure intensity of work by the week, season and year;

(d) Data on wages and earnings, disaggregated by kind of economic activity, to indicate areas of very low productivity;

(e) Cross-classification of employment and unemployment by educational attainment, to indicate un- or under-utilized skills. This is an important point since mismatch between education and employment is often a source of under-utilization of the labour force, which suggests the need for evolving appropriate policy instruments in the area of both education and employment planning.

These series and classifications are included in panel III of annex I, and illustrative indicators based on them are shown in the third column as a first step in applying these data in the planning process.

80. The illustrative series, classifications and social indicators shown in panel III are divided into four sections, covering (a) labour force participation; (b) unemployment and underemployment; (c) compensation of employees; and (d) working conditions. The illustrative series and classifications shown are intended to provide as comprehensive a picture as possible of participation in economic activity (participation in production) in developing countries. The classifications are intended as a basis for selection by countries in compiling the series. They would, of course, be applied in greater or less detail according to each country's own situation and statistical circumstance. These classifications are also designed to serve as a basis for linking up series in the employment field with series in other areas of the framework. The classification by socio-economic class, for example, provides an important means of linking labour utilization measures with population characteristics and trends, on the one hand, and income, on the other.

81. No series are shown relating to the employment services, as data on the live register of the employment exchanges are useful mostly for the educated segment of the labour force. Even here, the data may prove inaccurate because of under-reporting, on the one hand, and the practices of multiple registration and registration by the employed who are seeking to improve their lot, on the other.

B. Labour force participation and employment and unemployment

82. Meaningful description of labour force participation and employment in rural areas and in the so-called urban informal sector presents particular problems in developing countries, as has been discussed above. For this reason, certain disaggregations of series and classifications are particularly emphasized in annex I:

(a) Labour force participation rates by age and sex and urban and rural;

(b) Employment and unemployment series classified by important characteristics of the worker and by certain types of employment and workers, such as own-account, family, seasonal and part-time.

83. A question may be asked as to whether we can sum up the information collected on labour force participation and employment and unemployment to present a global picture of unemployment as a unidimensional magnitude. There is a very natural temptation to answer this question in the affirmative. Thus, the Committee of Experts on Unemployment in India decided to add the number of those who are without work to the number of those who work for less than 14 hours a week to form an over-all estimate of unemployment.

84. It would appear, however, that much valuable information will be lost in presenting an aggregate figure, which may be lacking in any operational significance. It would be much better to present the data in a disaggregated manner along the lines suggested above for different occupations. In addition, household income and expenditure surveys should be carried out simultaneously to throw light on familial characteristics in relation to wages, earnings and employment. Finally, it may be useful to get a measure of willingness to work by inserting a few probing questions in a labour force survey. The 25th round of the National Sample Survey in India tried to ascertain this factor in terms of willingness to move out of the villages if regular wage employment were guaranteed. The results obtained for different parts of the country were quite different and have given rise to the need for devising different types of employment strategies.

C. Compensation of employees and working conditions

85. Productivity levels among employees in certain economic activities may be measured in the first instance by wage rates, earnings and benefits per employed person. These series should be disaggregated by kind of economic activity to bring out essential distributional and structural differences as between, for example, agriculture, industry, trade and community services (mainly governmental). Supplementary data should be collected with regard to education levels.

86. Of course, in may developing areas employees do not constitute the majority of the labour force. Hence in considering employment and productivity, attention should also be given to the distribution of labour time over a reference period, such as a week, month, quarter or year, for all workers as an aspect of working

conditions. The reference period may be adjusted to bring out the seasonal character of labour utilization in certain circumstances. This is shown in connexion with the series on average hours worked in section D of panel III in annex I.

87. Other principal aspects of working conditions relate mainly to employees, such as paid holidays and occupational health and safety, and will initially be of secondary importance for systematic statistical reporting in developing countries, but should be scrutinized as early as possible in the process of industrialization. They are also closely related to the field of health.

D. Summary

88. The indicators shown in this area of Towards a System of Social and Demographic Statistics are in many cases not appropriate for a majority of developing countries. To recapitulate, the main reasons and the approaches suggested in adapting and implementing a framework for integration for developing countries are the following:

(a) The production boundary must include non-monetized activities if a proper description of the employment situation is to be obtained. Hence, it is suggested employment data show specific series relating to socio-economic class, family workers, seasonal and part-time workers, and own-account workers;

(b) The concept of economically "inactive" is ambiguous and should be used only in connexion with institutional population and full-time students;

(c) A very large proportion of the labour force is not employed for wages; hence, the labour force concept must be broadly inclusive of family workers, own-account workers, and any employment paid in kind;

(d) Even within the category of wage-employment, there are considerable variations in conditions of employment, for example, "casual labour" in agriculture, mining, construction and trade. Hence, it is suggested that special attention be given to in-kind wage payments and to duration of work;

(e) Among the category of the self-employed in urban and rural areas, there are pronounced differences in time dispositions because of seasonality of work. In addition, there are large differences in productivity levels. Hence, in-kind earnings must be covered, and the kind-of-economic-activity classification and hours-worked series are again useful.

89. Disaggregated along the lines in annex I, the illustrative indicators should conform rather closely to the main structural divisions and types of employment in a developing country, such as urban and rural, agricultural and industrial, and "organized-unorganized". In order to cover fully the rural, household and small-scale sectors, much more reliance than heretofore will have to be placed on household-based censuses and surveys. In addition, data on educational profiles can be used together with the data on learning activities to build up the necessary balances on the manpower side.

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IX. DISTRIBUTION OF INCOME, CONSUMPTION AND ACCUMULATION

A. Principal focus in developing countries

90. Statistics relating to the distribution of income, consumption and accumulation as they concern a framework for social statistics are dealt with in Towards a System of Social and Demographic Statistics, chapter XIII. Except for the addition of the concept "net worth" and some observations dealing with the dynamics of income formation, they are based on the guidelines proposed in "A draft system of statistics of the distribution of income, consumption and accumulation" (E/CN.3/425). More recently, distribution statistics for developing countries have been dealt with in another United Nations document which presents certain adaptations and simplifications designed to reflect the structural characteristics of developing countries and their limited statistical resources. 17/ These three reports all look at the statistics of distribution primarily from the point of view of households. They all disaggregate the income and outlay accounts for households of A System of National Accounts (SNA). 18/ In fact, the simplified system for developing countries uses the household as the statistical unit for all purposes. In spite of the fact that Towards a System of Social and Demographic Statistics deals largely with stocks and flows of human beings, this emphasis would appear to be justified for both developed and developing countries quite apart from the fact that economic life in developing countries is such that incomes are largely spent by households rather than by individuals. For the developing countries, household income (where the household is defined on a housekeeping basis) is defined to include transfers between households in cash and in kind, as these may comprise an important source of income and consumption for a significant portion of the population.

91. An index of inequality in the distribution of income often turns out to be different if computed on a household basis compared to one computed on a per capita basis. This is because in many developing countries poorer households frequently include more persons, compared to what has been observed for developed countries. 19/ Hence it is useful in this area to include tabulations relating to available income etc., on a per person basis, even though for the initial collection of data it is preferable to use the household concept. This is proposed in the three United Nations documents referred to above. It would also be useful to show separately income per adult. These data will also make explicit whether poorer families are characterized by higher dependency ratios, an

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17/ "Statistics of the distribution of income, consumption and accumulation; draft guidelines for the developing countries" (E/CN.3/462).

18/ United Nations publication, Sales No. E.69.XVII.3. See accounts III E and supporting and supplementary table 23.

19/ Tinbergen has found evidence for this in dealing with income distribution over time in the case of the Netherlands, the Federal Republic of Germany and Great Britain. See V. M. Dandekar and N. Rath, "Poverty in India", Economic and Political Weekly, vol. VI (2 and 9 January 1974) for the data relating to India, and J. Tinbergen, "Trends in income distribution in some Western countries" in M. B. Connolly and A. K. Swoboda, eds., International Trade and Money (London, George Allen and Unwin, 1973).

assumption often made and which, if true, would have very significant implications in devising egalitarian economic policies.

92. The United Nations system of distribution statistics includes the concept "primary income", a term that does not appear in SNA. The system proposed for developing countries allows for separate entries for incomes received in cash and in kind, which is quite appropriate. Furthermore, it distinguishes between primary income comprising wages and salaries and gross entrepreneurial income, on the one hand, and distributed factor income, which is defined as primary income plus interest and land rent, on the other. Primary and distributed factor income are based on actual payments to the so-called factors of production in the classical approach to the problems of income generation, but of course on family farms and in small industrial units, entrepreneurs perform many of the services which employees perform in the case of large, incorporated enterprises. These circumstances indicate that actual payments to the factors of production cannot be used for measuring factor shares with any kind of precision.

93. There is no denying the fact that these difficulties are inherent in developing economics characterized by a substantial amount of "dualism" where concepts which are well-defined for the "modern" sector begin to lose exactitude as soon as the attempt is made to extend them to an economy-wide basis. This has led some scholars, notably those who are inclined to follow the socio-institutional approach of Professor J. Marchal, to extend the number of socio-economic groups for the statistical description of the distribution process. An example is provided by Professor Gundarmé, who has used the following system of classification: (1) servants; (2) urban subproletariat; (3) artisans; (4) factory wage-earners; (5) rural proletariat; (6) civil servants; (7) army; (8) bourgeois and aristocratic classes; and (9) foreigners. [20]

94. From the point of view of a framework for social statistics, there is no denying that there is some merit in this approach even though it is inadequate for answering questions which have figured repeatedly in connexion with growth models, such as analysing the effect of capital accumulation on the rate of profit or the influence of tariffs on the distribution of income. To be able to answer a question as to whether income inequality can be reduced further in developing countries, one needs to obtain a complete size distribution of incomes by households broken down by as many distinguishing characteristics as may be considered relevant on the basis of theoretical considerations and the current state of information that we may possess for the developing countries.

B. Priorities

95. In developing economies, since property income is generally considered to be much more important than in most developed market economies, and the factors lying

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20/ See R. Gundarmé, "Reflections on the approaches to the problem of distribution in underdeveloped economies" in Jean Marchal and Bernard Ducros, eds., Distribution of National Income (London, Macmillan, 1968).

behind the distribution of property income are likely to be quite different from
the ones which cause variation in labour incomes, it is necessary to obtain two
size distributions, one of labour incomes and the other of property incomes.
Furthermore, as the available survey data reveal that urban and rural
distributions are generally different, it would be desirable to distinguish at
least four distributions altogether.

96. For rural property incomes, a first approximation to the desired
distribution can be provided by the distribution of land holdings. Land census
data are sometimes available which can be used for this purpose. Special studies
can be carried out on rural indebtedness to get an estimate of income from money
lending. For analysing urban property incomes, principal reliance will have to
be placed on fiscal data, such as the data on income tax and wealth tax. In fact
the usefulness of income tax data can be improved if data on gross incomes are
furnished. Gross income for income tax purposes is defined as assessed income
plus all the deductions and rebates allowed to the assessee. Despite the
prevalence of tax evasion, the data can be processed to give some idea of the
distribution of property incomes in urban areas. It has been generally noticed
that the Pareto distribution fits the upper tail of income distribution fairly
closely, a phenomenon which can be used to graduate the distribution.
Alternative graduation formulae can also be tried.

97. For obtaining the distribution of labour (primary) incomes, it would be
quite reasonable to begin with a distribution of consumer expenditure by urban
and rural residence. No doubt at the upper end, consumer expenditure would be a
very inadequate measure of income. Similarly, at the lower end, income will be
below consumer expenditure. Thus, there are two difficulties. What
supplementary data are needed and how should they be processed so as to generate
the distribution of labour incomes from the consumer expenditure data?

98. In the Indian case, several attempts were made to deduce the distribution of
personal incomes from the consumption data. Swamy, Ranadive and several others
tried to obtain the distribution of personal incomes by combining data on
consumption expenditure furnished by the National Sample Survey with data on
savings provided by other survey studies including the data provided by the
Reserve Bank on the ownership pattern of financial assets. 21/ However, even
assuming that one is in a position to obtain data on personal income
distribution, to obtain data on the distribution of labour income, one must
adjust for income derived from property as revealed by the fiscal data in the
urban case and income from land rent and money lending in the rural case. Thus
using an indirect procedure, it is possible to get at estimates of distribution
of labour incomes by rural and urban areas. There is no doubt that these
estimates are likely to be very rough in character. Furthermore, the procedure
suggests that the different components of total income operate additively, an
assumption which may not always be justified.

21/ See J. G. Sandersars, ed., The Indian Economy, Performance and Prospects
(University of Bombay, 1974). The entire part II of the book is devoted to
income distribution. See, in particular, the contributions of Ranadive, Swamy
and Krishnan.

99. Until integrated household survey data covering income, consumption and accumulation begin to be collected on a regular basis, it is not easy to see how better estimates can be obtained for the rural and urban sectors in their entirety. For carrying out household income surveys, the real difficulties stem from non-sampling errors, since it may be possible to take care of sampling errors through introducing a proper design. However, for obtaining distribution of labour incomes in the organized industrial sector, no special difficulties need be anticipated.

100. Once size distributions have been arrived at, particular attention will need to be paid to the two tails of the distributions because of the special significance they possess for carrying out any redistributive policy.

101. Until very recently, our knowledge of factors determining the size distributions of incomes was very limited, if not altogether non-existent. Attention was directed to analysing the functional distribution of incomes, which, in spite of its obvious importance for theoretical purposes or for long-run analysis, cannot provide much direct help on the policy questions. Furthermore, to the extent theoretical analyses were attempted, they pertained largely to producing schemes of stochastic processes which would produce asymptotically certain empirically observed distributions of incomes by size classes. Reference can be made in this connexion to the interesting work done by Champernowne. 22/ From recent analysis, it would appear that apart from the influence exerted by ownership of means of production such as land etc., which no doubt play a very important role in influencing the distribution of incomes at the accrual state, education plays a very important role in explaining the variance of the observations. Alongside education, distribution of the labour force by kind of economic activity would appear to be important. It has been found that a high percentage of the labour force engaged in industry tends to be accompanied by a lower index of inequality. 23/ It has also been noticed that the age distribution of the population has a systematic influence on the distribution of incomes.

102. Since the age distribution of the population is connected with the factors influencing mortality and fertility, health and family planning measures can be expected to exercise a systematic influence on the distribution of income.

103. These considerations would suggest that households should be cross-classified with educational attainment, land holding and tenure, size and type of household, and the usual occupation and industry.

C. Statistics on poverty

104. A concept that has been particularly emphasized in recent years is "absolute

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22/ See D. G. Champernowne, "A model of income distribution", Economic Journal, vol. 63 (1953), pp. 318-351.

23/ The phenomenon has been commented upon by Kuznets and Lydall.

poverty". The criterion of "maximin" devised by J. Rawls in connexion with his theory of distributive justice has been invoked to support the policy prescription that planners should try to maximize the economic lot of those who are worst off.

105. Generally, the procedure that has been employed is to define poverty with respect to a preassigned consumption norm. Those whose consumption expenditure is found to lie below this norm have been described as "poor". In actual practice, this means selecting a group such as the lowest three deciles for special attention from the policy point of view. While the criterion is not altogether unambiguous from the ethical point of view, since any observed distribution will show that while all of these people are poor, some are poorer than others, it is doubtless a more meaningful way of approaching the problem than through using Gini ratios, unless the underlying distribution is of a certain specific type.

106. Considerable care should, however, be exercised in defining the norms. Clearly, in many developing countries a physical definition of the essential requirements of life should be attempted from the nutritional point of view, even though allowance will need to be made for agro-climatic variations as well as for customary habits, if they are not considered to be otherwise prejudicial. In translating physical requirements into money values, care must also be taken in choosing the appropriate set of prices.

107. To get an estimate of the percentage of people living below the poverty line, the data collected on the observed distributions of consumption expenditure should be adjusted for fractile group-specific price indices. As these indices are not often available, efforts should be made to collect them.

108. While international comparisons are extremely hazardous in this context, interregional variations within the same country and intertemporal variations for a given region are likely to prove useful in assessing the nature of social and economic development as well as for suggesting remedial courses of action.

D. Statistics on redistribution

109. So far, we have dealt with the distribution of income at the accrual stage. It is necessary to consider statistics dealing with the size distribution of income after allowing for redistribution through taxes, transfers and other items of direct benefits. It is suggested in "Statistics of the distribution of income, consumption and accumulation; draft guidelines for the developing countries" (E/CN.3/462) that, since direct taxes is the only item for which reliable information is available, and it also happens to be dimensionally significant, distributed factor income less direct taxes may be used as a proxy for gross available incomes.

110. This statement is true only in a limited sense. It is true to the extent that transfers in cash are generally insignificant in many developing countries. However, it is not true to the extent that important services are often rendered at a price less than their costs. Furthermore, there are often subsidies in

relation to food and certain essential items. In the tables presented on pages 10-11 and 19 of the draft guidelines presumably these direct and indirect benefits are to be taken into account by distinguishing between "gross available income" and "gross income".

111. While for the construction of these tables the distinctions make sense, in actual practice what should be of interest is to determine how much of collective consumption is enjoyed by different size groups of households. Furthermore, one wants to know where subsidies accrue in regard to food and other essential consumption.

112. Complete analysis will require an estimate of total household income after receipt of all direct and indirect benefits and after payments of all direct and indirect taxes. Such an analysis requires a thorough study of the entire fiscal policy, which may not be immediately practicable. But some efforts must be immediately initiated; these are indicated below. Table 11, "Average total consumption of the population, per household member, classified by object of expenditure and broad socio-economic classes of heads of households" of the draft guidelines and the distribution of the total consumption of the population to fractile groups of households according to gross distributed income (table 2 a), are relevant here although they do not take account of the incidence of indirect taxes.

E. Illustrative series, classifications and social indicators

113. Illustrative series, classifications and social indicators are shown in panel IV of annex I covering household income and accumulation, household and total consumption of the population, and redistribution of income.

114. Fractile group distributions are shown for certain series concerning income and consumption as proposed in the draft guidelines. Classifications in relation to primary income (sect. A.1) should also include educational attainment of the household head and income should be calculated per household member. The classification by land holding and tenure in the case of agricultural households should provide important information on the distribution of income in relation to the distribution of land. In the draft guidelines, gross primary income is composed of compensation of employees and gross entrepreneurial income; gross property income received by households consists mainly in interest received on personal loans and land rent received; gross available income is distributed factor income (primary income plus property income) plus or minus net premiums or benefits from casualty insurance and unrequited current transfers including direct taxes. Gross capital formation consists of the sum of gross fixed capital formation (including non-monetary) and increases in stocks of unincorporated enterprises. A useful concept of income often used in developing countries is distributed factor income less direct taxes. This concept differs from available income principally in that unrequited current transfers are not included.

115. In regard to household consumption expenditure, data should be collected not merely in monetary terms but also in physical (quantity) terms for certain items, using a classification of household goods and services such as that shown in the draft guidelines on income distribution.

116. To measure the redistributive character of the government budget, government expenditure devoted to providing various services to households should also be compiled, with special emphasis on education, health and nutrition (sect. B.2 of annex I, and table 4 of the draft guidelines). Data on unrequited current transfers (sect. C.1) should also be used in this connexion where they are relatively substantial in the aggregate. In addition, it is important in some countries to indicate who bears the burden of indirect taxes, as these taxes often account for a very large part of the current receipts of government in many developing countries (sect. C.2). For this purpose, it is necessary to indicate the amount of indirect taxes paid by different groups of consumers. Certain subsidies, as of food-grains, may also account for an important proportion of government expenditure and of household consumption. In the absence of detailed incidence studies, which are often difficult to carry out with the weak data base in developing countries, some insight into the question may be obtained by computing the total amount of indirect taxes paid by different size classes of consumers. In India, several studies of this type were carried out and the results proved quite interesting. [24] Similar studies can be carried out elsewhere as a by-product of the information on the size distribution of consumer expenditure.

117. As regards statistics dealing with saving, consumer durables and net worth of households, it is clear that statistics of net worth are beyond the computational reach of the developing countries. Furthermore, from the point of view of analysis and policy-making, this is not a variable which can be regarded as immediately demanding of attention. This is also so in the case of gross accumulation. Similarly, with respect to data on consumer durables, it is not clear if this should have a high priority. However, certain items like cars, radios, etc., can be listed on a per household basis depending on the country. For these items, regular administrative sources for collecting data exist, but these should be integrated with other data connected with households using a classification of household goods and services and a series such as in item B.1.

118. On the social indicators side, inequality measures pertaining to different distributions are particularly important to obtain along with average values. The subject has been dealt with above. However, in relation to income distribution statistics, the measures proposed by Eltetö and Frigyes deserve special attention, not because they possess any great merit as measures of welfare, but because they are very simple to compute and possess a very convenient "decomposability" attribute which is useful for purposes of analysis and policy making. [25] These measures are $u=m/m_1$, $v=m_2/m_1$, and $w=m_2/m$, where m is the mean of a given distribution, m_1 the mean of the lower half of the distribution and m_2 the mean of the upper half of the distribution. These three measures may be approximately interpreted as the degree of inequality experiences (a) by the lower half (of, say, households) relative to the over-all average, (b) by the lower half relative to the upper half, and (c) by the upper half relative to the over-all average. These measures are easily computed from the fractile distributions shown in annex I, even where the data are quite sketchy, and possess a number of other desirable attributes which make them useful for policy analysis and calculation.

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[24] See Government of India, Ministry of Finance, "Incidence of indirect taxation, 1963-64" (New Delhi, 1969).

[25] See O. Eltetö and E. Frigyes, "New income inequality measures as efficient tools of causal analysis and planning," Econometrica, April 1968.

X. HEALTH, HEALTH SERVICES AND NUTRITION

119. In the area of health and nutrition, the information needed to assess comprehensively, systematically and over time the state of health and nutrition of the population is hardly available for most of the developing nations. Statistics which are frequently available in time series form relate to death rates, number of health establishments and number of medical personnel. Many additional data which are needed can be had only through initiating sampling inquiries. Only a phased programme of consistent efforts can develop these data with the desired degree of coherence and the needed classifications.

120. So far as available health services and facilities are concerned, the basic data shown in Towards a System of Social and Demographic Statistics include some items on which a good amount of data is likely to be available in most of the developing nations, but it should be remembered that these data may often say very little about either the health services available to the population generally or the effectiveness of these services and facilities, both important concerns in developing countries where physical and human resources are very scarce, and often inequitably distributed.

121. Similarly, data on personal consumption expenditures on health, even where available, may be relevant only for a fraction of the population in many developing countries.

122. However, some effort may be made to develop the required data on total and especially government health services expenditures, as these data are essential to efficient, controlled planning and distribution of these services. The amount and distribution of preventive health expenditures and the correlated services are likely to be especially important in this connexion in developing countries.

123. Nutrition is an area of concern where the need is very great. Most of the relevant data must be collected through special household food consumption surveys. In combination with statistics of food supplied, these data may be used to assess the adequacy of food supplies relative to the energy (calorie) requirements of the population. Other special surveys may be used to assess the rate of sub-clinical protein - calorie malnutrition among children.

124. Panel V of annex I shows illustrative series, classifications and social indicators in the areas of health, nutrition and health services. Under section A, "State of health", items 1 and 2 relate to health conditions generally and are based on commonly collected statistics of deaths and incidence of selected communicable diseases of public health importance. Those communicable diseases which are of current public health concern will vary from country to country and over time. In most cases, the absolute number of cases rather than the rate or incidence is the more important measure of the degree of threat to public health and, hence, of the effectiveness of preventive policies, on the one hand, and the need for corrective action, on the other. Where an outbreak of a specified disease spreads to such an extent that it affects a significant proportion of the

population in a particular area, the proportion of the population so affected would be a suitable measure of the impact of the disease on the population's health and welfare generally. Similarly item 3, on chronic functional disabilities such as blindness, provides a measure of this aspect of health and welfare conditions in the population, for which the possibilities of preventive or corrective action, or some sort of assistance to those affected, may be considered. Sections B and C of panel V deal with nutrition and health services and facilities. The illustrative series, classifications and social indicators in these areas are discussed above and in the publications of the World Health Organization shown in annex IV.

XI. HOUSING AND ITS ENVIRONMENT

125. It is generally recognized that housing and food constitute two of the basic necessities of life. Family expenditure studies in urban areas provide considerable evidence for this, while in rural areas a large part of non-monetized or partially monetized investment takes the form of construction or repair of living quarters. Yet, the data on the housing situation are far from satisfactory in most developing countries. This data gap must be filled if this aspect of the quality of life in developing countries is to be addressed.

126. To obtain an accurate picture of the housing situation in most developing countries, it is necessary to consider all types of living quarters and to pay particular attention to semi-permanent or non-permanent units since this is the type of housing occupied by a substantial portion of the population in many areas. Semi-permanent units are frequently constructed of locally available crude materials such as bamboo, palm, straw or similar vegetable materials. They sometimes have mud walls, thatched roofs, etc., and they may be expected to last for only a limited time. They are typical and traditional in many developing countries, especially in rural areas, for example, the ranchos or bohíos in some parts of Latin America, the barong barong in the Philippines. However, because they are of a less permanent nature, their identification as a separate category adds significantly to the possibility of making a meaningful analysis of the quality and quantity of housing.

127. It would also be useful to identify the units located in squatter settlements. While these units may vary in quality of construction, they are generally makeshift shelters built of waste materials and as a rule they lack basic sanitary facilities. They are usually found in urban and suburban areas particularly at the peripheries of the principal cities. There is wide variation in the procedures and criteria used to collect data on these units, and countries should consider appropriate methods to enumerate and classify them according to existing conditions. Since squatter settlements very often correspond to well established social entities, there would be advantages for analytical purposes in collecting information in regular censuses and surveys or in special surveys so that separate tabulations showing the characteristics of housing and its occupants in these settlements could be prepared.

128. Data on housing are most frequently collected in housing censuses carried out in connexion with a population census. Intercensal data are sometimes gathered by means of special surveys. Data on construction are sometimes derived from administrative data made available in connexion with the issurance of building permits or other sources. It is desirable that these be supplemented by sample surveys which test the extent to which permits represent actual construction or which broaden the coverage of the data by including areas not covered by permit information. At the same time, since housing represents a significant part of total capital formation and of household and public expenditure, estimates of gross fixed capital formation in housing and of the sources from which it is financed are desirable. In this context, it is necessary to pay particular attention to the

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institutional sources from which the principal part of the expenditures originates. In panel VI of annex I, only one illustrative series of this nature is shown, gross fixed capital formation in residential buildings (item 3), as these data are rather difficult to compile systematically in developing countries. Classification of this series by institutional sector, where possible, would show in addition the relative expenditures in this area of households, government etc.

129. In panel VI, illustrative series, classifications and social indicators are outlined which would provide basic statistical coverage of this area of living conditions. These series relate to the stock, characteristics and distribution of housing and its ownership, and gross additions to the housing stock as well as the associated gross capital formation. As emphasized here, priority should be given to establishing the distinctions between permanent, semi-permanent and non-permanent living quarters including so-called marginal housing units. The illustrative classifications shown relate mainly to location and type of living quarters. In most cases these are relatively easy to compile where censuses and surveys include questions relating to housing. 26/

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26/ Data currently available internationally are published in the Compendium of Housing Statistics, 1971 (first issue) (United Nations publication, Sales No. E/F.73.XVII.4). A second issue is in preparation.

XII. SECONDARY FIELDS

130. The remaining fields treated in Towards a System of Social and Demographic Statistics are family formation, families and households; social security and welfare services; social stratification and mobility; and public order and safety. For reasons of statistical availability and priorities of social and economic planning, these are generally accorded lower priority in most developing countries. Of course, this situation varies considerably among specific countries.

131. The sections that follow discuss and illustrate a limited selection of social concerns and basic series, classifications and social indicators for consideration by developing countries wishing to establish some minimal statistical coverage in one or more of these areas. In those instances where countries wish to establish a more comprehensive statistical framework in these fields, reference should be made to the extended discussion and illustrations set out in Towards a System of Social and Demographic Statistics and to the social indicators in the "Draft guidelines on social indicators" (E/CN.3/488), also before the Commission.

A. Family formation, families and households

132. Much of the information discussed in this field in Towards a System of Social and Demographic Statistics is unavailable in the desired form in the majority of the developing countries. Most of what it would be desirable to provide in developing countries has been discussed in the previous sections concerned with population and housing, as it touches on those important areas. The agencies concerned with family formation and stability provide little relevant data in systematic form. The main source for these specialized data appears to be special surveys like the Sample Registration Scheme introduced in India. The position in other developing countries would depend on the extent to which similar surveys may be implemented.

133. Therefore, only the following limited number of series is proposed for use by developing countries at an early stage of development of social and demographic statistics.

B. Allocation of time and leisure

134. The information available in this area in developing countries is extremely weak, and hardly any reliance can be placed on it in the majority of cases. Important aspects of time use in connexion with work have been dealt with above in chapter VIII. The potential importance of time-use statistics for developing countries in other areas, such as access to various types of social and other services, is widely recognized, but much more experience is needed to assess the feasibility and usefulness of collecting it, and to develop appropriate classifications and methodologies. Some other aspects of time allocation raise serious conceptual problems in developing countries because of the substantial own-account, household and subsistence production that occurs there. For these reasons, no illustrative series are shown in annex I.

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Annex I

ILLUSTRATIVE SERIES, CLASSIFICATIONS AND SOCIAL INDICATORS

Series	Classification	Social indicator

MAJOR FIELDS OF STATISTICS

I. Size and structure of the population

A. Size and changes in population

Series	Classification	Social indicator
1. Size of the population (annually) and percentage distribution (infrequently)	Sex, age Size and type of household National or ethnic origin Socio-economic class	Percentage of the population under age 15 National or ethnic groups as percentages of the total population
2. Population flows, numbers and rates per 1,000 persons (annually):		
(a) Net changes in population (estimated; classifications for bench-mark years only)	Sex National or ethnic origin Socio-economic class	Percentage rate of net changes in population
(b) Births	Age of mother National or ethnic origin	Live births per 1,000 females of child-bearing age Gross or net reproduction rate
(c) Deaths	Sex, age National or ethnic origin	Deaths per 1,000 persons
(d) Net international migration (estimated)	Sex, age National or ethnic origin	Net international migration per 1,000 average population

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		Series	Classification	Social indicator
B.		Geographical distribution of population		
	1.	Number and percentage distribution of population (annual estimates or bench-mark years)	Urban, rural Geographical area Size and type of place	Percentage of the population urban, rural Number and percentage of population in major places Density of population in specified urban areas and in specified rural areas
	2.	Population flows, number and rates per 1,000 persons (annually or bench-mark years):		
		(a) Net change in population	Urban, rural Geographical area Size and type of place	Percentage rate of net change, urban, rural; major place
		(b) Births	Age of mother in: Urban, rural or Geographical area	Live births per 1,000 females of child-bearing age; urban, rural
		(c) Deaths	Sex, age in: Urban, rural or Geographical area	Deaths per 1,000 persons; urban, rural
		(d) Net internal migration	Sex Urban, rural Geographical area Size and type of place	Net rate of rural-urban migration per 1,000 population; urban, rural and total

	Series	Classification	Social indicator

II. Learning activities and educational services

A. Educational attainments

1. Years of schooling completed, specified ages (less than annually)

Sex, age

Urban, rural

Geographical area

National or ethnic origin

Socio-economic class

Median years of schooling completed; urban, rural, males, females separately:

Ages 15-24

25+

2. Number and percentage of literates in the population, specified ages (less than annually)

Sex, age

Urban, rural

Geographical area

National or ethnic origin

Socio-economic class

Percentage of literates; urban, rural, males and females separately:

Ages 15-24

25+

3. Number and proportion of population at specified ages who have successfully completed specified levels of education (less than annually)

Level, selected fields

Sex, age

Urban, rural

Geographical area

Kind of economic activity (where applicable)

Occupation (where applicable)

Proportion of males, females; urban, rural:

Age 15+ who have completed education at the first level

Proportion of males, females, age 15+, who have completed education:

At the second level
At the third level

4. Number and percentage distribution of population according to mother tongue and knowledge of a second language (less than annually)

Sex, age

Geographical area

National or ethnic origin

Percentages of the population speaking predominant and second most predominant mother tongue

Percentages of the population with knowledge of a second language; males, females, age 15+

	Series	Classification	Social indicator
B.	Educational enrolments		
1.	Number and proportion of population enrolled full time, specified dates (annually)	Level, field Sex, age Urban, rural Geographical area National or ethnic origin Socio-economic class	Proportion of males and females, urban and rural, who enrol during the year. Where a different age classification is used, it should be as consistent as possible with the one used in the demographic field: Ages 5-9 10-14 15-24
2.	Number and proportion of specified years' enrolees who successfully complete that year	Sex Level Urban, rural or Geographical area	Ratio of years enrolled to years completed: First level Second level Third level Ratio of years enrolled to level completed: First level; urban, rural Second level Third level
3.	Number and proportion of population enrolled part time, specified dates (less than annually)	Level, field Sex, age Urban, rural or Geographical area	Ratio of part-time to full-time enrolment: Ages 5-14 Age 15-25 Proportion of the population enrolled part time age 25+

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	Series	Classification	Social indicator
C.	**Educational inputs and outputs**		
1.	Number of full-time teachers engaged (annually)	Level, selected fields Level successfully completed Urban, rural Geographical area	Ratio of teachers engaged to full-time enrolees: First level Second level Third level Median level successfully completed by teachers engaged: First level; urban, rural Second level Third level
2.	Total consumption expenditures on education, current and constant prices (annually or annual estimates)	Level Urban, rural or Geographical area Institutional sector	Total consumption expenditures per full-time enrolee: First level; urban, rural Second level Third level Total consumption expenditures on education as a percentage of GDP
3.	Gross fixed capital formation in education, current prices (annually)	Level Urban, rural or Geographical area Institutional sector	Gross fixed capital formation in education as a percentage of total gross fixed capital formation
4.	Unrequited current transfers to institutions and households from general government for educational purposes (annually)	Level Geographical area Institutional sector	Unrequited current transfers to institutions and households for educational purposes as a percentage of total government outlays for educational purposes: First and second levels Third level

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	Series	Classification	Social indicator
III. Employment, unemployment and the inactive			
A.	Labour force participation		
	1. Rates of labour force participation, specified periods, ages (less than annually)	Sex, age Urban, rural Geographical area Socio-economic class Level of education completed Occupation	Rates of labour force participation, urban, rural; male, female: Ages 15-24 25-64
	2. Number and proportion of labour force who are first-time entrants (annual estimates)	Sex, age Urban, rural or Geographical area Level of education completed	Proportion of labour force, urban, rural, male and female, who are first-time entrants, age 15-24
	3. Number and proportion of labour force who die, retire or emigrate, specified period (benchmark estimates)	Sex, age Urban, rural or Geographical area Occupation	Proportion of labour force who die or retire, male, female Proportion of labour force who emigrate, male, female
B.	Employment, unemployment and the inactive		
	1. Number and proportion of labour force unemployed, specified periods (annually and preferably quarterly)	Head of household Sex, age Urban, rural or Geographical area Level of education completed Occupation	Proportion of labour force unemployed, male and female, urban and rural: Ages 15-24 25+ Proportion of heads of households unemployed, male and female, urban and rural

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	Series	Classification	Social indicator
2.	Number and proportion of labour force employed, specified periods (annually and preferably quarterly)	Sex, age Urban, rural Geographical area Socio-economic class (bench-mark) Kind of economic activity (bench-mark) Occupation Family workers Seasonal and part-time workers Own-account workers, full-time	Proportion of labour force employed full time, male and female, urban and rural, age 15+ Proportion of labour force who are family workers, male and female, urban and rural Proportion of labour force employed seasonally or part-time, male and female, urban and rural Proportion of labour force employed full-time on own account, male and female, urban and rural, age 15+

3.	Number and proportion of population not in the labour force, specified periods (less than annually)	Sex, age
		
		Urban, rural
		or
		Geographical area
		
		Level of education completed
			Proportion of population not in the labour force, male and female, urban and rural:
			
			    Ages 15-24
			
			    25+
			
			Proportion of the population not in the labour force who are full-time students, male and female:
			
			    Ages 15-19
			
			    20-24

		Series	Classification	Social indicator
C.		Compensation of employees		
	1.	Mean or median hourly wage or salary rate at current and constant prices, specified dates (annually or quarterly)	Sex, age Urban, rural or Geographical area Level of education completed Kind of economic activity Occupation	Mean or median hourly wage rate, male, female, total and selected categories of economic activity
	2.	Mean or median earnings at current and constant prices, specified periods (annually or quarterly)	Sex, age Urban, rural or Geographical area Level of education completed Kind of economic activity Occupation	Mean or median earnings, male, female, total and selected categories of economic activity
	3.	Mean employers' contributions to benefits per employee, specified periods (annually)	Urban, rural or Geographical area Kind of economic activity	Employers' contributions to benefits as a percentage of earnings; total and selected categories of economic activity
D.		Working conditions		
	1.	Average hours worked per worker, specified periods (annually or quarterly)	Sex, age Seasonal and part-time workers Kind of economic activity	Average full-time workers; hours worked per worker, seasonal and part-time workers; male, female; selected categories of economic activity

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	Series	Classification	Social indicator
2.	Occupational injuries per 1,000 workers, specified periods (annually)	Sex, age Type of injury Kind of economic activity	Occupational injuries per 1,000 workers per year, male and female, total and selected categories of economic activity
3.	Occupational health and safety inspectors per 1,000 employees, specified dates (annually)	Kind of economic activity	Occupational health and safety inspectors per 1,000 employees annually, selected categories of economic activity
4.	Average days of paid holidays per employee (annually)	Kind of economic activity Occupation	Average days of paid holidays per employee, total and selected categories of economic activity

IV. Distribution of income, consumption and accumulation

A. Household income

	Series	Classification	Social indicator
1.	Gross annual primary income per household and per household member (every two or three years and annual estimates)	Size and type of household Urban, rural Land holding and tenure in case of agricultural households Socio-economic class Level of education completed by head Fractile groups of households according to distributed factor income	Mean per capita primary income, urban, rural and total a/ Percentage annual change, mean per capita primary income

a/ Urban and rural, bench-mark frequency only.

	Series	Classification	Social indicator
2.	Gross annual property income per household and per household member (every two or three years)	Urban, rural Land ownership in case of agricultural households Socio-economic class Fractile groups of households according to distributed factor income	Mean property income per capita, urban, rural and total a/ Percentage annual change, mean property income per capita
3.	Gross annual distributed factor income per household and per household member (every two or three years)	Urban, rural Socio-economic class Fractile groups of households	Mean distributed factor income per capita, urban, rural and total a/ Percentage annual change, mean distributed factor income per capita Gini ratio, gross distributed factor income Percentages of distributed factor incomes represented by lowest and highest fractile groups of households

	Series	Classification	Social indicator
4.	Gross annual available income (or distributed factor income less direct taxes) per household and per household member (every two or three years and annual estimates)	Size and type of household Land holding and tenure in case of agricultural households Socio-economic class Level of education completed by head Urban, rural Fractile groups of households	Household available income per household, urban, rural and total a/ Mean per capita available income, urban, rural and total a/ Percentage annual change, mean per capita available income, urban, rural and total a/ Gini ratio, gross available income Percentages of gross available income represented by lowest and highest fractile groups of households
5.	Gross capital formation in households per household (every two or three years)	Socio-economic class Urban, rural Fractile groups of households according to available income	Primary income as a percentage of available income, urban, rural and total a/ Property income as a percentage of available income, urban, rural and total a/ Gross capital formation in households as a percentage of gross available income, urban, rural and total a/

		Series	Classification	Social indicator
B.		Household and total consumption		
	1.	Final annual consumption of households, total and quantities of selected items, per household and per capita (every two or three years)	Socio-economic class Urban, rural Geographical area Fractile groups of households Classification of household goods and services	Mean final household consumption per household and per capita, urban, rural and total a/ Percentage annual change, mean final household consumption per capita, current or constant prices, urban, rural and total a/ Consumption of food and beverages as a percentage of total final consumption, urban, rural and total a/ Gini ratio, final consumption of households Percentages of final consumption of households represented by lowest and highest fractile groups of households
	2.	Total annual consumption of the population per household and per capita (every two or three years)	Socio-economic class Urban, rural Geographical area Fractile groups of households according to distributed factor income	Mean household and per capita total consumption, urban, rural and total a/ Government consumption expenditure assigned to households as percentage of total consumption

Series	Classification	Social indicator
C. Redistribution of income		
1. Annual unrequited current transfers (every two or three years) (a) Payments per household and per household member (b) Receipts per household and per household member	Socio-economic class Fractile groups of households according to available income Urban, rural or Geographical area	Mean unrequited current transfer receipts per household and per capita Unrequited current transfer receipts as a percentage of household available income
2. Incidence of selected indirect taxes and subsidies (occasional years)	Socio-economic class Fractile groups of households according to distributed factor income	Selected indirect taxes as a percentage of household available income, urban, rural and total a/ Net selected indirect taxes as a percentage of household available income
V. Health, health services and nutrition		
A. State of health and nutrition		
1. Number and rates of deaths (annually)	Sex, age Urban, rural Geographical area (National or ethnic origin – lower priority) Causes of death (broad groups)	Rates per 1,000 live births of infant (or neo-natal and post-neo-natal) and maternal deaths; urban, rural Rates of death per 1,000 persons, age 1-4 and 5-14; urban, rural Rates of death per 1,000 persons, selected causes or groups of causes; male, female, ages 15-24, 25-44 Expectation of life, male, female, ages 1, 15 (quinquenially only)

	Series	Classification	Social indicator
2.	Number and/or incidence of selected communicable diseases of public health importance (annually)	Sex, age Urban, rural Classification of diseases (selected diseases)	Number and/or incidence per 100,000 population of selected communicable diseases of public health importance
3.	Number and proportion of persons with selected chronic functional disabilities (infrequently)	Sex, age Urban, rural Classification of disabilities	Rate per 100,000 population of blindness, one or more limbs missing, etc.

B. Nutrition

	Series	Classification	Social indicator
1.	Per capita energy (calories) intake, specified periods (infrequently)	Sex, age Urban, rural Geographical area Classification of foods according to energy values Classification of population according to energy requirements	Percentages of the population with adequate energy intakes; ages 1-3, 4-14, 15+; and 0-1, with pregnant and nursing mothers
2.	Per capita intake of protein, specified periods (infrequently)	Sex, age Urban, rural Geographical area Classification of foods according to protein content Classification of population according to safe levels of protein intake	Percentages of the population with safe levels of protein intake; ages 1-3, 4-14, 15+; and 0-1, with pregnant and nursing mothers

	Series	Classification	Social indicator
3.	Total and per capita supply of energy (calories), specified periods (annually)	Geographical area Classification of foods according to energy values	Ratio of total supply of energy to estimated requirement for adequate energy intake of the population
4.	Rate of subclinical protein-calorie malnutrition among children (infrequently)	Age Urban, rural Geographical area Classification of anthropometric standards	Percentage of children with subclinical protein-calorie malnutrition; ages 0-3, 4-14
C.	Availability and use of health services		
1.	Proportion of births attended by physicians or trained auxiliary personnel (annually)	Urban, rural Geographical area	Proportion of births so attended; urban, rural
2.	Number and ratio per 100,000 persons of health services personnel (annually or less frequently)	Geographical area Speciality Level of education	Ratio per 100,000 persons, doctors, dentists, nurses, midwives, other, by geographical area
3.	Number and ratio per 100,000 persons of hospital beds (annually)	Geographical area Type of hospital or hospital service	Ratio per 100,000 persons of hospital beds, by geographical area
4.	Number and rate per 100,000 persons of hospital discharges (annually)	Geographical area Classification of diseases (broad groups) Type of hospital or hospital service	Rate per 100,000 persons of hospital discharges, by geographical area

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	Series	Classification	Social indicator
5.	Percentage of the population served by and number and rate of visits per 1,000 persons to primary health service posts (infrequently)	Urban, rural Geographical area Classification of diseases (broad categories)	Rate per 1,000 persons of visits; urban, rural
6.	Total and _per capita_ total consumption expenditures on health services (annually or less frequently)	Geographical area Type of service	Total annual consumption expenditures on health services as a percentage of GDP
7.	Proportions of children immunized against specified diseases (less than annually)	Age Urban, rural or Geographical area Classification of diseases	Proportion aged 5-14 immunized against diphtheria, pertussis, tetanus, poliomyelitis, measles (examples), urban, rural

VI. Housing and its environment

	Series	Classification	Social indicator
1.	Stock and characteristics of living quarters (every 5 or 10 years)	Urban, rural Geographical area Characteristics of living quarters	Percentage of living quarters with one room only; urban, rural Percentage of living quarters which are conventional permanent dwellings; urban, rural Percentage of living quarters with piped water supply indoors or within 100 metres; urban, rural

Series	Classification	Social indicator
2. Number and gross rate of additions to stock of conventional dwellings (annually or less frequently)	Urban, rural Geographical area (Size and type of place - lower priority) (Characteristics of living quarters - lower priority)	Gross annual rate of additions to stock of conventional dwellings; urban, rural
3. Gross fixed capital formation in residential buildings (annually or less frequently)	Urban, rural or Geographical area Institutional sector	Gross fixed capital formation in residential buildings as a percentage of GDP
4. Distribution of population according to characteristics of occupied living quarters (every 5 or 10 years; selected estimates more frequently)	Characteristics of living quarters by selected cross-classifications according to: Urban, rural Geographical area (Socio-economic class - lower priority)	Percentage of the population in living quarters other than conventional permanent or semi-permanent dwellings; urban, rural Percentage of the population homeless; urban, rural Percentage of the population with indoor piped water supply or with access to a piped water supply within 100 metres; urban, rural Percentage of the population occupying living quarters with toilets; urban, rural

Series	Classification	Social indicator
		Percentage of the population occupying living quarters with flush toilets, urban
		Percentage of the population in living quarters with electric lighting; urban, rural
		Percentage of the population occupying living quarters at densities of 3 or more persons per room
5. Household tenure in living quarters (every 5 or 10 years)	Urban, rural Geographical area (Socio-economic class — lower priority)	Percentage of households in owner-occupied living quarters; urban, rural

SECONDARY FIELDS OF STATISTICS

VII. Family formation, families and households

1. Number of first marriages, specified period (infrequently)	Sex, age Urban, rural or Geographical area National or ethnic origin	Percentage of the population ever married; males, females, ages 24 and 44

Series	Classification	Social indicator
2. Number of family nuclei (infrequently)	Size and type of family nuclei	Percentage of family nuclei with one parent
		Percentage of family nuclei with more than two children
		Ratio of family nuclei to households (exclusive of persons living alone); urban, rural
3. Number of persons living alone (infrequently)	Sex, age Urban, rural	Percentage of the population living alone
VIII. Social security and welfare services		
1. Number and percentage of the population at risk covered by social security and similar schemes (annually or less frequently)	Sex, age, where feasible Urban, rural or Geographical area Type of programme	Percentage of the labour force covered by unemployment insurance or similar schemes; urban, rural
		Percentage of the labour force covered by old-age insurance or similar pension schemes; urban, rural
2. Number of persons or households receiving social security and similar benefits, by type of programme (annually or less frequently)	Sex, age, where feasible Urban, rural or Geographical area Type of programme	Percentage of the labour force receiving unemployment or similar benefits; urban, rural
		Percentage of the population age 65+ receiving old-age pensions or similar assistance; urban, rural

	Series	Classification	Social indicator
3.	Expenditures for social security and welfare services (annually or less frequently)	Type of programme	Expenditures for social security and as a percentage of all welfare services
			Ratio of average old-age assistance per recipient to per capita national income
IX.	Public order and safety		
1.	Annual number of homicides	Sex, age Urban area	Annual rate of homicides per 100,000 population; male, female (urban only)
2.	Annual number of detentions by legal authorities, specified dates	Sex, age Urban area	Annual rate of detentions by legal authorities per 100,000 population; male, female (urban only)
3.	Number of persons employed in law enforcement and administration	Urban, rural or Geographical area Size and type of place	Persons employed in law enforcement and administration per 100,000 population; total and major place

Annex II

REFERENCES TO INTERNATIONAL GUIDELINES ON CLASSIFICATIONS

I. Classifications in major fields

    A. Size, structure and distribution of the population

        1. Sex, age

            Principles and Recommendations for the 1970 Population Censuses (United Nations publication, Sales No. E.67.XVII.3), paragraphs 176-178 and 276; and regional recommendations cited in annex IV, section I.

        2. Urban, rural; size and type of place a/

            No applicable international guidelines; to be examined in the light of international recommendations to be prepared for the 1980 round of population and housing censuses. See also the regional recommendations cited in annex IV.

        3. Geographical area b/

            Principles ..., paragraphs 308-309.

        4. National or ethnic origin

            Principles ..., paragraphs 245-246.

        5. Size and type of household c/

            Principles ..., paragraphs 146-147 and 218-221.

    B. Learning activities and educational services

        Level of education

        United Nations Educational, Scientific and Cultural Organization, International Standard Classification of Education (ISCED), Three Stage Classification System (Paris, 1974).

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    a/ A classification of localities by size-class is shown in Principles ..., illustration 2, p. 31.

    b/ A classification using "major" and "minor" civil divisions and "principal localities" is used in Principles ..., illustration 4, p. 33, and passim.

    c/ A classification of households by size is shown in Principles ..., illustration 4, p. 33.

C.   Employment, unemployment and the inactive

   1.   Underemployment

     "Resolution concerning measurement and analysis of underemployment and under-utilization of manpower" adopted by the Eleventh International Conference of Labour Statisticians (1966), reprinted in International Labour Office, International Recommendations on Labour Statistics (Geneva, 1976), chapter 2.

   2.   Occupation

     International Labour Office, International Standard Classification of Occupations (ISCO) (Geneva, 1969).

D.   Distribution of income, consumption and accumulation

   1.   Socio-economic class d/

     "Statistics of the distribution of income, consumption and accumulation; draft guidelines for the developing countries" (E/CN.3/462), table 1.

   2.   Fractile classifications of households

     "Statistics of the distribution ...", paragraph 150 and tables 2a, 7a and 10a.

E.   Health, health services and nutrition

   1.   Diseases, injuries and causes of death

     World Health Organization, Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death, 2 vols. (Geneva, 1966). A short version of this classification is in preparation for use in the developing countries.

   2.   Functional disabilities

     No applicable international guidelines

   3.   Type of hospital or hospital service

     A classification of hospitals and clinics is contained in "Draft detailing of the classification of the purposes of government" (ST/ESA/STAT.82), item 4.2 of the annex.

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    d/ Classifications of the population by status and by socio-economic status are discussed in Principles ..., paras. 277-282.

A classification of medical and surgical services delivered by hospitals and similar institutions is contained in "International Standard Classification of All Goods and Services" (ICGS) (E/CN.3/493), class 9331.11.

4.   Nutrition standards and classifications

Discussed in World Health Organization, Energy and Protein Requirements, Report of a joint FAO/WHO ad hoc expert group committee, Technical Report Series No. 522, (Geneva, 1973).

F.   Housing and its environment

1.   Characteristics and facilities of living quarters

Principles and Recommendations for the 1970 Housing Censuses (United Nations publication, Sales No. 67.XVII.4), paragraph 239; and regional recommendations cited in annex IV.

2.   Type of tenure in living quarters

Principles ... for the 1970 Housing Censuses, paragraphs 327-329.

II. Classifications in secondary fields

A.   Family formation, families and households

Size and type of family nuclei

Principles ... for the 1970 Population Censuses, paragraphs 215-216.

B.   Social security and welfare services

Type of programme

No applicable international guidelines. An illustrative classification may be found in International Labour Office, Cost of Social Security (Geneva, 1972).

III. Other related classifications

A.   Uses of time

No applicable international guidelines. An example of a classification, which has been tested by researchers in 12 countries, may be found in Alexander Szalai, ed., The Use of Time, The Hague, Mouton (1972). It is summarized in Towards a System of Social and Demographic Statistics (United Nations publication, Sales No. E.74.XVII.8), chapter XXVII.

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B.   Kind of economic activity

International Standard Industrial Classification of All Economic
Activities (ISIC) (United Nations publication, Sales No. E.68.XVII.8).

C.   Purposes of government

A System of National Accounts (United Nations publication,
Sales No. E.69.XVII.3), table 5.3, and "Draft detailing ...".

D.   Institutional sector

A System ..., table 5.1.

E.   Household goods and services

A System ..., table 6.1.

Annex III

HISTORICAL BACKGROUND

1.   Work to consider the feasibility, usefulness and appropriate approach to adapting the full version of a System of Social and Demographic Statistics (SSDS) for developing countries was undertaken following the seventeenth session of the Statistical Commission (see introduction above).

2.   Discussions of the full version of a system subsequently took place at the eighth session of the Conference of African Statisticians and in a working group of the Economic Commission for Latin America. The former meeting emphasized that the full version of an SSDS was much too complex and comprehensive for use by African countries and welcomed the plan to prepare a simplified version. The latter meeting felt that while one Latin American country was engaged in introducing much of the full version of an SSDS, it would not be practical for a number of the countries of the region to develop it in detail in the foreseeable future. The second session of the Expert Group on a System of Social and Demographic Statistics also recommended that work should proceed on a version of a system which would be suitable to the requirements and statistical capabilities of the developing countries. The Group urged that while the core of the full version should be retained as far as possible, a version for the use of the developing countries should reflect their special social concerns and their stages of statistical development. a/

3.   At its eighteenth session, the Commission considered a progress report concerning work on an SSDS for developing countries (E/CN.3/451). Two somewhat different approaches to the desirable direction of immediate international work in this area were discussed. "On the one hand, there was the view that work should proceed on designing a simplified version of an SSDS for developing countries because the full version was too complex for the purpose. On the other hand, there was the view that the SSDS should be viewed simply as a process of systematization and that the immediate objective was to improve, restructure and harmonize social statistics, keeping the full SSDS as a long-term goal and using it as a frame of reference." The Commission concluded that the paper being prepared on the adaptation of an SSDS for developing countries should be amended in the light of the discussion during the eighteenth session, and that an expert group should be convened to consider it. b/

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a/ "Report of the eighth session of the Conference of African Statisticians", (E/CN.14/611), paras. 227-243; "Report of the Working Group on a System of Demographic and Social Statistics", (E/CN.12/948); "Report of Expert Group on a System of Social and Demographic Statistics on its second session held from 23 to 27 April 1973", (ST/STAT.69).

b/ Official Records of the Economic and Social Council, Fifty-eighth Session, Supplement No. 2 (E/5603), paras. 82 and 85.

4.   An early version of the draft framework for developing countries, prepared by
Professor S. Chakravarty as consultant to the Statistical Office, was issued as a
document under the symbol ST/ESA/STAT.86 and was considered by the Expert Group
on Social Statistics and a System of Social and Demographic Statistics for
Developing Countries at its meeting at United Nations Headquarters from
17 to 21 November 1975. The present document is a revision of the earlier version
based on the discussions of the Expert Group and comments received from developing
countries and interested specialized agencies on the full version of an SSDS,
Towards a System of Demographic and Social Statistics, and on the two accompanying
reports on applications of an SSDS issued by the Statistical Office in draft form,
"SSDS; Potential uses and usefulness" (ST/ESA/STAT.75), and "SSDS; Draft guidelines
on social indicators" (ST/ESA/STAT.76). These three documents were distributed
in 1975 to national statistical authorities, regional commissions, interested
specialized agencies and other international bodies for comment.

Annex IV

GENERAL REFERENCES

A complete list of references to international statistical services, series and standards may be found in the <u>Directory of International Statistics</u> (United Nations publication, Sales No. E.75.XVII.11).

References of particular interest for the development of a framework for the integration and analysis of social statistics for developing countries are given below. These relate mainly to methodologies, standards and applications in particular fields. Publications which are sources for international guidelines for classifications relating to the various fields of a framework are cited in annex II above.

I. United Nations publications and documents

<u>Principles and Recommendations for a Vital Statistics System</u> (Sales No. E.73.XVII.9).

<u>Principles and Recommendations for the 1970 Housing Censuses</u> (Sales No. E.67.XVII.4).

<u>Principles and Recommendations for the 1970 Population Censuses</u> (Sales No. E.67.XVII.3).

<u>Statistical Indicators of Housing Conditions</u> (Sales No. E.62.XVII.7).

<u>A System of National Accounts</u> (Sales No. E.69.XVII.3).

<u>Towards a System of Social and Demographic Statistics</u> (Sales No. E.74.XVII.8).

Regional Recommendations

Africa

"African recommendations for the 1970 population censuses" and "African recommendations for the 1970 housing censuses" (E/CN.14/CAS.6/1 and E/CN.14/CAS.6/2), Economic Commission for Africa.

Asia

Asian Recommendations for the 1970 Population Censuses
(Sales No. 67.II.F.3).

Asian Recommendations for the 1970 Housing Censuses
(Sales No. 67.II.F.9).

Latin America

"Programa del censo de América de 1970 (COTA 1970)" in Informe de la
IX Sesión de la Comisión de Mejoramiento de las Estadísticas
Nacionales (COINS), (Washington, D.C., Inter-American Statistical
Institute (5679b)), pp. 20-121.

Regional studies and reports

Economic Commission for Latin America

"Fuentes de información sobre principales campos de las estadísticas
demográficas y sociales en América Latina" (ST/ECLA/Conf.44/L.2),
1972, mimeo.

J. V. Sourrouille, "Sistema de estadísticas sociodemográficas - un
ejemplo ilustrativo" (ST/ECLA/Conf.44/L.5), 1972, mimeo.

Los beneficios económicos y sociales de la enseñanza, 1972.

Economic and Social Commission for Asia and the Far East

"Report of the Working Group on Manpower and Labour Statistics"
(E/CN.11/STAT/L.11), mimeo.

"Report of the Working Group on Current Demographic Statistics"
(STAT/WGCDS/8), mimeo.

II.   Food and Agriculture Organization of the United Nations

Energy and Protein Requirements, Report of a Joint FAO/WHO Ad Hoc
Expert Committee, 1973 (also WHO, Technical Report Series, No. 522,
Geneva).

Food and Nutrition Planning, Nutrition Consultants Reports Series,
No. 35, 1975.

Manual on Household Food Consumption Surveys, FAO Nutritional
Studies No. 18, 1962.

Programme of Food Consumption Surveys, 1963.

III.   International Labour Office

International Recommendations on Labour Statistics, 1975.

Labour Force Projections, 1965-1985; Part VI, Methodological Supplement,
1971.

Technical Guide to the Yearbook and Bulletin of Labour Statistics, two
vols., 1972. A new edition will be issued in 1976.

IV.   World Health Organization

B. Abel-Smith, An International Study of Health Expenditure and its
Relevance for Health Planning, Public Health Papers, No. 32, 1967.

National Health Planning in Developing Countries, Report of a WHO Expert
Committee, Technical Report Series, No. 350, 1967.

New Approaches in Health Statistics, Report of the Second International
Conference of National Committees on Vital and Health Statistics,
Technical Report Series, No. 559, 1974.

Recommendations and Statements of WHO Expert Groups in Relation to
Health Statistics (WHO/HS/NAT.COM/75.345), 1975.

World Health Statistics Annual.

World Health Statistics Report (monthly).