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## INTERNATIONAL DEFINITION AND MEASUREMENT OF LEVELS OF LIVING

AN INTERIM GUIDE

UNITED NATIONS

23 p.



# INTERNATIONAL DEFINITION AND MEASUREMENT OF

## **LEVELS OF LIVING**

AN INTERIM GUIDE

This document is issued as a joint undertaking of the United Nations, the International Labour Office, the Food and Agriculture Organization, the United Nations Educational, Scientific and Cultural Organization and the World Health Organization

> UNITED NATIONS New York, 1961

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## INTERNATIONAL DEFINITION AND MEASUREMENT OF LEVELS OF LIVING

An Interim Guide

## Introduction

The Report of a Committee of Experts on the International Definition and 1. Measurement of Standards and Levels of Living  $\frac{1}{}$  was published in 1954 in accordance with resolution 434 B (XIV) of the Economic and Social Council which requested "the Secretary-General, in co-operation with the International Labour Organisation and other appropriate specialized agencies to convene a small group of experts to prepare a report on the most satisfactory methods of defining and measuring standards of living and changes therein in the various countries, having regard to the possibilities of international comparisons". The Expert Committee distinguished between "standard", "norm" and "level 2. of living", and confined its discussion to "level of living", defined as the actual living conditions of a people. The Committee concluded that the most satisfactory approach to the international measurement of levels of living was through the measurement of clearly delimited aspects or parts of the total life situation that were amenable to quantification and that reflected generally accepted aims of social and economic policy at the international level. Separate fields, such as health, nutrition, housing, employment conditions and education, were considered "components" of levels of living, and specific statistical measures or "indicators" were proposed for the components, account being taken of the availability and international comparability of data. For example, calorie consumption was proposed as a measure of one aspect of nutrition and literacy rate as a measure of one aspect of education. No single comprehensive measure of levels of living was found acceptable.

3. The recommendations of the Expert Committee have been discussed in debates in the Economic and Social Council, in the Social Commission and in the Statistical Commission. Comments have been received from Member Governments and from central statistical agencies. $\frac{2}{}$  The specialized agencies have made periodic reports on

<sup>1/</sup> United Nations Publication, E/CN.3/179, E/CN.5/299 (Sales No. 1954.IV.5.).

<sup>2/</sup> Comments of Governments on the Report on International Definition and Measurement of Levels of Living, E/CN.3/213.

progress and developments within their respective spheres. $\frac{3}{2}$  These debates and discussions have resulted in a continuous review of the recommendations made by the Expert Committee.

4. At the same time the proposals of the Expert Committee have provided, within the limitations imposed by the availability of statistics, a framework for the second report on the World Social Situation for certain field work and for the reports by the specialized agencies on trends within their fields. There has therefore been an opportunity to experiment with the proposed components and indicators, and this opportunity to check the theory against its practical application is likely to increase as more data become available.

5. The interest which has been reflected in recent debates within the United Nations on the relationship between social policy and economic development, and on economic and social programming, has focussed attention on the definition and measurement of levels of living from another angle, since the indicators that are used to measure trends on an international level are in many cases the same indicators that are used in formulating the aims of social programmes and in evaluating progress at the national level.

6. The present report reflects the current thinking of the United Nations and specialized agencies on the system of components and indicators and on basic information appropriate for the international definition and measurement of levels of living. The report is based on the recommendations of an inter-agency working party on statistics for social programmes. These recommendations were incorporated in a progress report on the international definition and measurement of levels of living<sup>4</sup>/ prepared at the request of the Economic and Social Council (resolution 585 B (XX)) and submitted to the Statistical Commission at its eleventh session<sup>5</sup>/ and the Social Commission at its thirteenth session.<sup>6</sup>/ The present report is issued jointly by the United Nations, the International Labour Office, the United Nations Educational, Scientific and Cultural Organization, the Food and Agriculture Organization and the World Health Organization, to provide an interim

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<sup>3/ &</sup>lt;u>Report on Statistical Aspects of the International Definition and Measurement</u> of Levels of Living, E/CN.3/241.

<sup>4/</sup> International Definition and Measurement of Levels of Living, E/CN.3/270.

<sup>5/</sup> Certain comments and suggestions made by the Statistical Commission were considered by the Working Party at its second session and incorporated in a revised text.

<sup>6/</sup> The Social Commission, at its thirteenth session, agreed that this report should now be submitted to Governments as an interim guide.

guide to Governments, research organizations and others interested in the measurement of levels of living.

7. In international discussions of the measurement of levels of living, particular emphasis has been put on the need to collect data referring to major social-economic groups and on the importance of presenting social-economic distributions or groupings in addition to national averages. At the same time, the scarcity of data referring to socio-economic groups has been recognized. Joint inter-agency efforts are now being made to develop the use of household inquiries and the sampling technique, which should help obtain more data of this type, particularly in the economically less developed areas.

## Components, Indicators, and Basic Information for the Measurement of Levels of Living

8. The inter-agency Working Party on Statistics for Social Programmes which met in Geneva in September 1959 adopted as a basis for its discussion the system of components and indicators recommended by the Committee of Experts. The components recommended by the Expert Committee included the following:

- (1) Health, including demographic conditions
- (2) Food and nutrition
- (3) Education, including literacy and skills
- (14) Conditions of work
- (5) Employment situation
- (6) Aggregate consumption and savings
- (7) Transportation
- (8) Housing, including household facilities
- (9) Clothing
- (10) Recreation and entertainment
- (11) Social security
- (12) Human freedoms

9. As the Working Party noted, some of the components appear to be more directly related to the measurement of levels of living than others. Some of the indicators under the employment component reflecting the structure of employment, although closely related to levels of living, should not be regarded as direct measures of these levels. It is doubtful whether transportation should be

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considered a component of the level of living: transportation is primarily a means to the achievement of other goals, and in some circumstances may represent a social cost. The macro-economic indicators included under aggregate consumption and savings are significant indicators of the level and structure of the economy as a whole, but do not provide a direct measure of levels of living in the same way as the components dealing with levels of education and nutrition, for example. 10. It is therefore proposed that the following should be considered as components of levels of living:

- (1) Health
- (2) Food consumption and nutrition
- (3) Education
- (h) Employment and conditions of work
- (5) Housing
- (6) Social security
- (7) Clothing
- (8) Recreation
- (9) Human freedoms

11. It is recommended that those items such as aggregate consumption and savings and transportation, that are closely related to levels of living but are not direct measures of levels of living in the same sense as the above components, should none the less be considered (in somewhat revised form) as providing basic information necessary for the interpretation of levels of living. It is proposed that a further category should be added to this group of essential background items, namely an item dealing with population and labour force, and that the transportation category should be widened to include data on communications. The categories recommended under the general heading of basic information (see paragraphs 51-62) are therefore the following:

- (1) Population and labour force
- (2) Income and expenditure
- (3) Communications and transportation
  - (a) Mass communications
  - (b) Post and telecommunications
  - (c) Transportation

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12. The Working Party reviewed the indicators proposed for the measurement of levels of living under the different components and noted that some of the indicators appear to be more useful for international comparisons than others; certain indicators which are more directly affected by climatic and geographical differences, for example, are nevertheless important for national purposes. It also considered that while most indicators provide measures under specific components, others are affected by a great variety of factors and may be considered as non-specific or general indicators. The resulting recommendations on indicators to be included under the components or as general indicators, and on the type of data to be included as basic information, are given in the following paragraphs:

## I. Components of levels of living

#### Health:

- 13. The following priority indicators are recommended under this component:
  - (1) Expectation of life at birth
  - (2) Infant mortality rate
  - (3) Crude annual death rate

These three indicators have long been used as measures of general levels of health, in addition to being closely related to other components of levels of living. Expectation of life at birth is considered theoretically the best indicator of levels of health. The infant mortality rate has traditionally been regarded as one of the best measures of environmental sanitation closely correlated with the general levels of economic and social development. The crude death rate is included in spite of its dependence on the age structure of the population and because it reflects the intensity of mortality in a given country or area because of its greater availability.

14. The use of these indicators is however limited by lack of reliable data for many countries and territories of the world. The next round of censuses which will make available data on age structure of population should increase the number of countries for which it will be possible to make estimates of the expectation of life. The real difficulty is that data involving fertility and mortality rates cannot be more reliable than the registration of births and deaths from which the

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data are derived. Since the completeness of registration is in turn related to the general level of social and economic development of the country concerned, the problem of obtaining reliable data for the less developed countries is a very real one. Well-conducted sample surveys may provide an alternative method of obtaining data on births and deaths which would be of sufficient accuracy for practical purposes.

15. Mortality from specific causes and particularly the percentage of deaths from parasitic and infectious diseases have frequently been proposed as indicators of levels of health. However, in the countries where this latter ratio would be of the greatest significance, medical certification of causes of death is either not available or unreliable. Since mortality from specific causes is influenced by the geographical distribution of specific diseases, such data are of use in formulating national health programmes, but do not provide a good indicator of general levels of health.

16. The two indicators of health facilities originally recommended by the Expert Committee, the number of hospital beds and the number of physicians in relation to the population, are not considered satisfactory measures of medical services. Although these indicators are available for a larger number of countries than other indicators that have been recommended and although they may be useful for national purposes, they are not satisfactory as measures of levels of health, since the effectiveness of these services depends to a considerable extent on the way in which they are organized, on their distribution and on the professional qualifications of the medical personnel. More information on the availability and utilization of medical and health services is expected from pilot studies in local health services that have recently been carried out.

17. Within this general field the focus of interest has tended to move from the measurement of mortality to the measurement of morbidity. Morbidity has been defined, types of illness classified and indicators of morbidity proposed in terms of the prevalence or incidence of morbidity over a period or at a point of time. Although no indicators of morbidity are recommended in this report for international use, data from morbidity surveys are widely used for formulating national health programmes and for adding to the general background information on levels of health in the countries concerned.

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## Food consumption and nutrition:

18. The following indicators are recommended under this component:

(1) National average food supplies in terms of calories at the "retail" level compared with estimated calorie requirements;

(2) National average food supplies in terms of total proteins at the retail level;

(3) National average food supplies in terms of animal protein at the retail level;

(4) Per cent of total calories derived from cereals, roots, tubers and sugars.

19. The first indicator relates purely to the quantitative aspects of the diet. Recommendations, based on present scientific knowledge, have been made by the FAO Committee on Calorie Requirements for estimating calorie requirements in relation to selected physiological and biometric characteristics of different population groups, although the important characteristic of physical activity cannot yet be taken into account.

20. It is noted that no satisfactory and practicable indicators of actual nutritional status of people have yet been developed, although the second and third indicators have a bearing on it, since they may be regarded as partial indicators of the nutritional quality of the diet. These are different in character from the first indicator in that no optimum levels of requirements for total or animal protein have yet been established on an internationally acceptable basis, since they depend, among other things, on the composition of the diet in respect of other nutrients. The level of animal protein is probably a better indicator than that of total protein in the diet, since foods of animal origin are also generally good sources of many other essential nutrients, such as vitamins and minerals. It should be noted, howerver, that the traditional superiority ascribed previously to animal protein as such is not fully confirmed by recent advances in nutritional science.

21. The fourth indicator which has been proposed indicates the quality of the diet indirectly. Cereals, starchy roots and tubers and sugars contain large amounts of carbohydrates and are relatively poor in proteins and other essential nutrients. This proportion therefore gives an approximate idea of the value of the diet as a whole, since the lower the proportion of these foods in the diet,

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the higher generally would be the proportion of the more nutritious foods. Thus, the indicator has a negative correlation with nutritive value, and with the two previous indicators. Howerver, it cannot be relied upon in all cases, since nutritive value is influenced not only by these proportions but also by the precise nature of the foods comprising the group of cereals, starchy foods and sugar, and also by that of the rest of the foods in the diet. Nevertheless, it has the merit of simplicity, and since in almost all countries cereals or starchy roots and tubers are staple elements of the diet, it is fairly widely applicable. 22. These indicators have usually been calculated from data on national food supplies classified by different categories of foods and reflect the limitations of these data resulting from inadequacy in coverage and unreliability in estimates. However, in recent years a much greater use of surveys of household food consumption makes it possible to use data from these surveys as a check on the national supply figures.

#### Education:

23. The following priority indicators are recommended:

"Adult literacy rate" - percentage of population, male and female,
 15 years old and over, able to read and write;

(2) "Total school enrolment ratio" - total enrolment in all schools below the level of higher education as a percentage ratio to the population aged 5-19 inclusive. This indicator may, where appropriate, be subdivided into the following two indicators:

(a) "Primary school enrolment ratio" - total enrolment in all primary schools as a percentage ratio to the population aged 5-14 years inclusive;

(b) "Secondary school enrolment ratio" - total enrolment in all secondary schools as a percentage ratio to the population aged 15-19 years inclusive.

(3) "Higher education enrolment ratio" - total enrolment in institutions of higher education per 100,000 population.

24. There is also agreement on the usefulness of the following supplementary indicators of education:

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(1) "Index of educational attainment" - median number of years of formal schooling completed by the population, male and female,
25 years old and over;

(2) "Pupil teacher ratio" - average number of pupils per teacher in all primary schools, urban and rural.

25. Data on school enrolment and literacy are available for a relatively large number of countries but important qualifications have to be made when using these data in international surveys. For example, data on attendance or absenteeism as well as enrolment are needed, but data on attendance are not generally available except through censuses and surveys.

26. Figures on enrolment also need to be supplemented by data on the extent to which children drop out of the educational system before completing the full primary or secondary education provided.

27. It should be noted that the population groups used in connexion with school enrolment ratios have been chosen on an empirical basis to correspond with the demographic data most likely to be available, although in many instances they do not correspond exactly to the school-going population.

28. It is still not considered possible to recommend indicators of technical education because of the difficulty of defining the different levels and forms of technical education in such a way as to provide comparable data. Great importance is attached to the development and standardization of data in this area.

## Employment and conditions of work

29. The Working Party agreed that the indicators included by the Expert Committee under the two components "employment" and "conditions of work" are closely related and can more conveniently be considered as a single component. The following priority indicators are accordingly recommended under this component:

1. Proportion of persons unemployed in the total labour force

2. Relative real wages (including wage fringe benefits) in selected occupations.

30. The proportion of persons unemployed in the total labour force is recognized as a significant indicator under this component in countries where comprehensive statistics of the wholly unemployed are available, or where fairly reliable

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estimates can be made. It is realized, however, that useful unemployment data are not available for most under-developed countries and that even in the economically more advanced countries the unemployment ratio needs to be interpreted with caution, since small differences may be explained in part by differences in such factors as the industrial structure, seasonality of industries, mobility of labour and the rate of economic development. 31. It has been pointed out many times that in the less developed areas underemployment is frequently of greater economic and social significance than complete unemployment. Progress has been made in defining underemployment, but it is considered premature to recommend any indicator of underemployment for international use.

32. It is proposed that since many of the indicators reflecting the structure of the labour force originally proposed by the Expert Committee under the employment component cannot be considered unambiguous measures of levels of living, these should be included as basic information rather than as indicators of levels of living. It is, however, recommended that one of this group of indicators, "the ratio of male labour force in agriculture to total male labour force" should be transferred to the group of general indicators (see paragraphs 47-50) as it is considered more indicative of the general economic and social level of the country than of specific employment aspects. The significance of real wages as an indicator of the level of living of 33. workers has been stressed. In this connexion, emphasis has recently been put on the need to systematize wage data. Wage rates alone have little significance as they are frequently minima based on normal hours of work and differ in varying degrees from earnings; in many countries "wage fringe benefits" which are computed separately from wages paid for work done, have become such a large proportion of total payments to workers by their employers that their omission invalidates comparisons of wages between countries. The importance of determining which fringe benefits should be regarded as wages has been emphasized. The Working Party agreed that since the average wage of broad groups of 34. workers is influenced by such factors as the proportion of females and juveniles in the group of workers considered, and the relative importance of different industries within the scope of the statistics, it is preferable to compare wage levels of workers in similar occupations. It is accordingly proposed that a short list of occupations be drawn up for use in connexion with this indicator.

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35. It is recognized that comparisons of real wages over time within a particular country, provided an appropriate consumer price index is available, raise fewer problems than international comparisons. In the case of international comparisons there is no ready solution to the problem of how to convert wage data into a satisfactory common currency unit, or any other international unit. Account has to be taken of varying price structures and tastes. It is suggested that countries might be asked to supply, in addition to indices of real wages, wage data in money terms together with price data and supplementary information necessary to permit a study of relative wages between any two particular countries according to methods described in the ILO study, <u>International</u> Comparisons of Real Wages.

36. As the Working Party agreed, other indicators proposed by the Expert Committee under the component, conditions of work, such as "normal hours of work per week as laid down by law or by collective agreements for workers in industry" and "minimum age eligibility for employment", should be considered as norms rather than as indicators of levels of living.

### Housing:

37. The following priority indicators are recommended under this component:(1) Per cent of the population living in "dwellings"

(2) Per cent of occupied dwellings with three or more persons per room

(3) Per cent of occupied dwellings with piped water inside the dwelling or outside the dwelling but within 1CO metres

(4) Per cent of occupied dwellings with toilets

38. A "dwelling" is defined for the purpose of a housing census in terms of a permanent building as distinct from semi-permanent rustic housing units such as huts and cabins, and mobile and improvised housing units. It is expected that more data for this indicator as well as for the second and third indicators recommended above will become available within the next few years, since many countries are planning to take housing censuses in conjunction with the next round of population censuses.

39. In addition to these priority indicators, the following supplementary indicators are recommended:

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(1) Per cent of the population living in sub-standard housing units classified as "rustic", "improvised", "not intended for habitation", or which is without shelter of any kind

(2) Average number of persons per room (for occupied dwellings only)

(5) Per cent of occupied dwellings with flush toilet (urban)

(4) Per cent of occupied dwellings with toilet other than flush 40. The first two of these indicators supplement the first two priority indicators. The third provides additional information on canitary facilities. This indicator is limited to flush toilets, since problems of definition make it difficult to get reliable information on all types of canitary installations, although it is agreed that a wider definition would be more meaningful. 91. It is realized that many of these data do not lend themselves easily to international comparisons because of differences in climate, kinship, composition of femilies, traditions and values. In all cases the statistics need to be supplemented by descriptive material, particularly on a regional basis, interpreting the local concept of housing, describing household facilities of significance in specific cultures and evaluating the level of community facilities.

## Social security

42. The importance of this component is recognized and considerable progress has been wade in systematizing social security statistics, but at the same time the Morthing Earty agreed that while such statistics are important for assessing progress in national programmes, differences in the organization of social security schemes in the various countries make it extremely difficult to determine the extent of social security coverage and the number of participants and beneficiaries on a uniform international basis.

45. The principal difficulty in obtaining uniform and complete data arises from the diversity of arrangements found in the various countries for meeting social security needs. These arrangements vary from the voluntary private family self-help system to the provision of all social services out of general public revenues; the most common situation is that certain contributory and compulsory social security schemes covering a few specific risks are supplemented by general government services and by local government services covering other risks, and not infrequently by local government services covering other risks, and not infrequently



also by voluntary schemes covering some of the same or additional risks. For these reasons it is not yet considered possible to recommend indicators for international use under this component.

## Clothing:

44. This component has been retained, even though it is not considered possible to recommend indicators for purposes of international comparison, since the adequacy of clothing as an element in the level of living is significantly affected by climate, occupation, and cultural factors.

## Recreation and entertainment:

45. The difficulty of measurement in the case of this component is due to the differences that prevail in forms of recreation and entertainment and the virtual impossibility of getting internationally comparable data on the older and more traditional forms including that element in recreation and entertainment that arises from family and personal relationships. Indicators of the more modern forms of recreation and entertainment, such as the number of cinema seats, theatre seats, museum visits, etc. per 100,000 population can be used, but they would give an inadequate and misleading picture of the level of this component in many parts of the world. It is suggested that efforts be made to obtain descriptive materials on the possible items under this head.

#### Human freedoms:

46. The Working Party noted that in the discussion on the recommendations of the Expert Committee there has been considerable agreement on the importance of this component, but doubt as to how it could be measured in quantitative terms. The Working Party agreed to retain this component but considered it still impracticable at the present time, from an international point of view, to recommend specific indicators.

#### II. General indicators

47. The indicators that have been recommended in the preceding section are considered as direct measures of particular components. Other indicators have been suggested which appear to be related to levels of living generally rather

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than to a particular component. Three such general indicators that have been proposed are:

(1) Proportional mortality indicator, that is, the proportion of deaths at ages 50 and over to all deaths.

(2) Expenditure on food as a percentage of household expenditure.

(3) Ratio of male labour force in agriculture to total male labour force. 48. The proportional mortality indicator, although it is not considered a specific indicator of health because it is affected by present as well as past demographic conditions and other factors, has been shown empirically to be highly sensitive to differences in levels of living generally. It has the additional advantage that the primary data are comparatively simple to collect, and the method of construction is straightforward.

49. It has also been empirically demonstrated that there is an inverse correlation between expenditure on food as a percentage of total household expenditure and the real income level of selected population groups. Although this relationship is likely to be significantly affected by differences in market structure and level of government consumption expenditure, it should be considered a general indicator of levels of living and not a specific indicator of food consumption and nutrition.

50. It is suggested that there are other indicators which would appropriately belong in this category but further work would be necessary in order to establish their significance.

## III. Basic information

51. The following categories are recommended under this heading:

## Population and labour force:

52. With the exception of mortality figures included under the health component, and the first general indicator (proportional mortality) mentioned in paragraph 47, data on demographic structure are not considered to be international measures of the levels of living. It is, however, suggested that data on population growth, the age structure of the population and the urban-rural distribution are so closely related both as cause and effect with levels of living that data on the demographic situation should be included as basic background information. The type of data which would have to be taken into consideration would include:

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- (1) Size and age structure of population
- (2) Birth rate, death rate and rate of natural increase
- (3) Population by size of locality
- (4) Extent and direction of internal migration.

53. Indicators providing for detailed breakdowns of labour force data were included by the Expert Committee under the employment component. As was noted by the Working Party, there has been considerable discussion as to whether these data should be considered as providing direct measures of levels of living. Although it is realized that, particularly in the less developed countries, labour force data such as the proportion of professional and skilled workers in the labour force are an important factor in the economic and social development of the country, it is proposed that these data, like the demographic data discussed above, should be included as basic background information rather than as direct indicators of a component of the level of living. It is suggested that the following items should be included here:

(1) Proportion of total population in the labour force;

(2) Proportion of persons under fifteen in the labour force;

(3) Proportion of persons sixty-five years of age and over in the labour force;

(4) Percentage distribution of labour force by status, i.e. employees, employers and workers on own account, family workers, and members of producers' co-operatives (if any);

(5) Percentage distribution of labour force by principal industrial categories;

(6) Percentage distribution of labour force by principal occupational categories.

## Income and expenditure:

54. The Working Party agreed that while the indicators originally proposed under the component "aggregate consumption and savings" are of great significance, they cannot be regarded as indicators of levels of living in the same sense as other indicators. It was noted, for example, that some of the ratios proposed by the Expert Committee as indicators under this component such as government and private consumption as a proportion of national income are ambiguous as measures of levels of living. It is therefore recommended that data on income and expenditure should be included as basic information rather than as a component of levels of living.

55. The items proposed within this category fall into two groups, the first reflecting the over-all trends and the second group including data on government and private expenditure in the different social fields.

56. The following items are recommended within the first of these two groups:

- (1) National income per capita and average annual rate of growth
- (2) Private consumption expenditure <u>per capita</u> and average annual rate of growth.

57. Rates of growth are stressed rather than levels because of the well-known problems in the way of making international comparisons of <u>per capita</u> national income, particularly between countries at varying stages of economic development. In spite of the considerable work which has been done on the methodology of comparisons of purchasing power between pairs of countries and small groups of countries with similar economic and social backgrounds, it is not considered possible to recommend wide-scale international comparisons of levels of <u>per capita</u> income.

58. The Working Party considered it important in connexion with the study of levels of living to evaluate the government and private expenditure for education, housing and other aspects of social development, and therefore included a second group of statistics relating to this general category, namely: information on government and private expenditure from the national accounts, and household expenditure from surveys of selected population groups, as follows:

(1) General government consumption expenditure - percentage devoted to education, housing and other social services;

(2) Private consumption expenditure - percentages devoted to health, food, education and rent;

(3) Private household expenditure distributed by object of expenditure.

Urban and rural and by level of expenditure or income if possible. The first two of these items should also be considered in relation to national income.

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59. In this connexion it is noted that in <u>A System of National Accounts and</u> <u>Supporting Tables<sup>1</sup></u> as well as in a <u>Manual for Economic and Functional</u> <u>Classification of Government Transactions<sup>2</sup></u> there is provision for obtaining the type of statistical information needed, but considerable work would need to be done in order to establish the necessary categories.

60. As the Working Party realized, there are considerable difficulties in the way of collecting and presenting comparable information relating to the various fields of public expenditure. Problems arise because of the division of responsibility between central and local authorities, between public and private organizations. Also the apportionment of certain public expenditure between related social fields is interpreted differently in different countries. For example, expenditure on school feeding programmes may be allocated to health, education or welfare. The cost of hospitalizing old people may be allocated to health or to welfare and so on. These border-line expenditures are particularly difficult in the health field and studies are being carried out in an attempt to bring some precision to the concept of health expenditure.

## Communications and transportation:

61. Although transportation was originally recommended by the Expert Committee as one of the components of levels of living, the Working Party noted that there had been some question of the interpretation of indicators relating to kilometres of roads and railways and numbers of vehicles in view of geographical and economic differences between countries. At the same time it is realized that transportation and means of communication in the widest sense are a vital factor not only because of the influence they exert on the nature and extent of the utilization of the country's resources, but also because of the extent to which they facilitate individual mobility and enable a more thorough utilization of social services affecting the various other components in the levels of living. It is therefore proposed that a broad category of basic information

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should be included under the heading communications and transportation which would bring together data of the following kind:

(1) Mass communications

(a) Average circulation of daily and non-daily newspapers per 1,000 population,

(b) Number of radio receiving sets in use per 1,000 population.

(2) Post and telecommunications

(a) Number of telephones per 1,000 population.

(3) Transportation

(a) Number of power-driven road vehicles per 100,000 population,

(b) Kilometres of roads, separately for metalled and non-metalled roads, per sq. km. of area,

(c) Kilometres of railways per 100 sq. km. of area.

62. It is realized that these indicators reflect the potential rather than the actual accessibility of information and services such as education and health services and that further work needs to be done in developing this group of items.

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