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DEMOGRAPHIC, SOCIAL AND ENVIRONMENT STATISTICS:
SOCIAL STATISTICS AND INDICATORS

Development of guidelines on national accounts for women's
contribution to development

Report of the Secretary-General

SUMMARY

This report provides information on work undertaken by the Statistical Office of the United Nations Secretariat and the International Research and Training Institute for the Advancement of Women to develop statistical concepts and methods for measuring women's economic contribution to development, utilizing to the extent possible the framework and standards of the United Nations System of National Accounts. This work has been undertaken pursuant to a recommendation contained in the Nairobi Forward-looking Strategies for the Advancement of Women and consideration of the topic by the Statistical Commission at its twenty-fourth session.

The objective of the current work is to prepare a technical report on appropriate methods and concepts and their relation to the System of National Accounts in order to assist countries wishing to compile statistics in a systematic way to identify and measure to the extent possible women's contribution to the economy.

* E/CN.3/1989/1.

The introduction to the present report reviews the background to consideration of national accounts for women's contribution to development (paras. 1-7). Sections I and II outline the discussion of uses and users of statistics on women's contribution to the economy and the scope and objectives of work in this field to be elaborated in the planned technical report (paras. 8-28). Sections III-V review conceptual, methodological and analytical issues that will be addressed in the technical report (paras. 29-83). Section VI considers some long-term implications of this work (para. 84). Points for discussion by the Commission are provided in section VII (para. 85).

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INTRODUCTION

1. In the Nairobi Forward-looking Strategies for the Advancement of Women, adopted in 1985 by the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace and endorsed by the General Assembly in its resolution 40/108, the Conference recommended that:

"The remunerated and, in particular, the unremunerated contributions of women to all aspects and sectors of development should be recognized, and appropriate efforts should be made to measure and reflect these contributions in national accounts and economic statistics and in the gross national product". 1/

2. Strong interest and support for this effort have been expressed by many government officials, non-governmental organizations and international organizations, including the International Research and Training Institute for the Advancement of Women (INSTRAW) in its programme budget for the biennium 1988-1989, as approved by the Board of Trustees of the Institute at its eighth session in 1988, 2/ 18 non-governmental organizations in a statement submitted to the Commission on the Status of Women at its thirty-second session, 3/ and the Minister of Women's Affairs, of Consumer Affairs and of Statistics of the Government of New Zealand. 4/

3. In following up the recommendation contained in the Nairobi Forward-looking Strategies, the Expert Group on Measurement of Women's Income and Their Participation and Production in the Informal Sector, which met at Santo Domingo in October 1986, made several proposals for further work on the development of statistics on women's income and production with special reference to the informal sector. These included (a) promoting wider understanding and improved application of principles and recommendations on coverage of subsistence, small-scale and non-monetary household production, contained in the United Nations System of National Accounts (SNA); (b) review and analysis of the classifications of industry, occupation and status in employment, with a view to suggesting ways in which women's concerns might be better taken account of in the revisions currently being prepared; (c) analysis to the extent possible of income and production flows in SNA by sex, on an experimental basis; and (d) experimental compilation of supplementary statistics and estimates that would permit the development of "augmented" estimates of gross domestic product (GDP) in supplementary or satellite accounts, that is, estimates of GDP that take into account household domestic work and reproduction not at present included within the SNA production boundary. 5/

4. At its twenty-fourth session, the Statistical Commission "welcomed the recommendations of the Expert Group on Measurement of Women's Income and Their Participation and Production in the Informal Sector, contained in document E/CN.3/1987/23, as concrete proposals to improve statistics for assessing and monitoring women's remunerated and unremunerated contribution to development". 6/ The Commission noted with approval the view of the Expert Group that the SNA definition of economic activity should not be revised to include value added by home-makers but that such activities should be covered in separate, supplementary

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estimates. Concerning the calculation of gross domestic product by sex (see E/CN.3/1987/23, para. 26 (d)), the Commission agreed that investigational work along those lines by interested countries and organizations would be of great interest, but the major problems inherent in such an exercise precluded the development of international guidelines.

5. The Commission emphasized the importance of working closely with countries, particularly developing countries, in the development and implementation of improved statistical methodology to take full account of women's work and agreed to consider at its next session a report on the development of guidelines on national accounts for women's contribution to development. 7/ The present report has been prepared in response to that request, taking into account additional comments made by the Working Group on International Statistical Programmes and Co-ordination of the Statistical Commission at its twelfth session (E/CN.3/1989/20, para. 30).

6. Since the twenty-fourth session of the Commission, several studies have been prepared by the Statistical Office and INSTRAW to develop a better understanding of the uses and limitations of the SNA framework for compiling statistics on women's contribution to the economy and to consider methods of compiling accounts and statistics along these lines. These studies have followed the recommendation of the Commission that this work should be undertaken to complement the process of revising SNA, not to offer an alternative or competing framework. 8/ It is therefore proposed that the final output of this work should be a handbook or technical report rather than formal guidelines. The studies which have been undertaken also follow the general principle of work in the United Nations Secretariat on improved statistics on women, that improvements should be consistent with overall improvement of the underlying basic statistics and statistical frameworks covering both women and men.

7. The present report summarizes the framework planned for the technical report and reviews issues studied to date on national accounts for women's contribution to development. Each of the following sections reviews the material to be taken up in a section of the final technical report. Sections I and II outline the discussion of uses and users of statistics on women's contribution to the economy and the scope and objectives of the work in this field, to be elaborated in the planned report. Sections III-V review methodological issues, including concepts and classifications; sources of data and methods of measurement; and analytical issues - mainly methods of valuation and preparation of accounts and tables. More detailed examples of accounts and tables to be developed as illustrations in the technical report are contained in the annex below. Section VI summarizes longer-range issues and perspectives on the use of national accounts to measure women's contribution to development. Section VII contains points for discussion by the Commission.

I. USES AND USERS OF STATISTICS ON WOMEN'S CONTRIBUTION TO DEVELOPMENT

8. The first chapter of the planned technical report on national accounts for women's contribution to the economy will analyse potential uses and users of these accounts and statistics. Measurement of women's contribution to development in quantitative terms is of great concern for development planning and programming to implement the main social and economic objectives set by the Nairobi Forward-looking Strategies. Two main trends have come together to make statistics on women's contribution to the economy a matter of high priority: the trend to redress the position of women (which requires objective information and adequate statistical data by gender) and the trend to improve general economic analysis and policy and to adapt it more fully to changing circumstances. Thus, although the work is focused on the need to improve the measurement of women's contribution to development, it should be understood that a number of the approaches suggested will lead to improved economic data and estimates generally. By extension, this work also has important relevance for the better measurement of the economic contribution of men working in activities that are difficult to measure.

9. Broadly speaking, in macroeconomics there is a trend away from almost exclusive dependence on global series measuring overall growth and towards more detailed analysis of sectors, and Governments and international bodies are increasingly concerned with how different population groups are faring in development and the impact on them of short-term and long-term economic trends. These developments emphasize the importance of making statistics on the contribution of women available. Efforts to combine micro and macro data in analysis and new interest in the theory of household economics point in the same direction. Concurrently government concerns and policies have been increasingly directed towards problems and sectors which have become much more visible and where women play an important role. More information is needed to ensure the effectiveness of such policies, and in view of the scarcity of statistical resources, care must be taken to obtain this information in the most economical way, without omissions and duplications and with a degree of approximation that is cost effective but satisfies the requirements of users.

10. Endeavours to supplement purely subjective appraisals of the situation of women with objective and, to the extent possible, quantitative information are not new. This work has shown the need for a general framework into which the relevant information can be fitted and combined in order to obtain indicators on women which would complement and could be compared with similar indicators for the population as a whole.

11. In order to carry out such systematization it is necessary to combine demographic, social and economic data, as women's contribution to be measured extends to all these areas. The main types of statistics concerned are population statistics, statistics on employment and wages, social statistics and national accounts. The planned technical report on national accounts for women's contribution to development will provide a framework in which to systematize, expand and use data on women's (and men's) economic activities and to show how such statistics can be prepared and used for different purposes, at various levels of aggregation.

A. Potential uses

12. Statistics on women's contribution to the economy should play a central role in economic, social and demographic measurement and analysis in relation to development. Some potential applications to be considered in the technical report are outlined below.

13. In economic planning, it is particularly important to consider the role of women in the following areas:

(a) The position of women and structure of the labour force: analysis of the interrelation between women's work and the state of the economy along the following lines:

- (i) In the long run;
- (ii) In short-run movements;
- (iii) In relation to internal migration;
- (iv) In relation to technological innovations;
- (v) In relation to international economic exchange (through migration, economics of border areas, labour-intensive exports and other relevant policy issues);

(b) Human resources planning: in order to measure and project labour resources, the total labour capacity of households has to be measured. The labour capacity of households can be mobilized in different ways - through wage employment, independent money-earning activities, or activities supporting the first two. Switching from one type of activity to another increases flexibility and helps the economy adapt itself to changing circumstances;

(c) Agricultural policies, taking into account women's role in the production of foodstuffs and its relation to male and female migration from rural to urban areas, and the position of women in agricultural production and their need for efficient policies for agricultural services and technical assistance;

(d) Economics of the informal sector: the economic situation of the informal sector requires innovative policy measures different from those concerned with other sectors of the economy, such as the use of concessional financial flows to promote development in the informal sector. Quantification is needed, for example, to determine the relative movements of prices and incomes in the informal as opposed to other sectors, and the contribution of women outworkers to industrial informal production;

(e) Adjustment and stabilization policies: data on women's participation in the economy, especially in the informal sector, are relevant for adjustment and stabilization policies which would take into account the needs and participation of the entire population. The impact on different social groups, including women, of

different policy measures, such as taxation, public spending, including subsidies and employment, concessional financial flows and the like can thus be determined.

14. In economic studies some other potential uses relate to:

(a) Analysis of comparative consumption and savings patterns of women and men and of female and male-headed households in order to make more accurate estimates of aggregate spending and saving behaviour;

(b) The provision of data on income distribution as it affects women;

(c) Theory of the household economy;

(d) The position of women as described by new types of sectoring of the economy (formal and informal sectors, role of volunteer work and the like).

15. In more general studies of social and economic development some uses to be examined relate to:

(a) Analysis of the interrelation of economic and social characteristics;

(b) Measurement of socio-economic development and the position of women;

(c) Socio-economic research relating to the position of women, including studies on discrimination, equal rights for women and the like;

(d) International comparisons of the economic role of women;

(e) Analysis of time use and the position of women;

(f) Interrelations between the economic role of women and demographic changes.

16. Another topic is women and the concept of potential national product. Planning, projections and economic policy analysis sometimes make use of the concept "potential product", that is, the level national product would reach if unemployment were eliminated. Several different concepts of unemployment can be used in such hypothetical models, but all consider the use of resources which are currently idle or underemployed. In this area women play an important role, though it can only be measured approximately.

B. Potential users

17. The main potential users of economic statistics and national accounts on women parallel the main potential uses of these statistics. Principal users would include policy makers, planners and analysts concerned with the need to reflect women's contribution to the national economy in national accounts in order to improve the formulation of more effective and realistic economic policy measures for the population.

18. Among such users are those who start with a specific interest in women's issues (and who, by analysing these issues, contribute to a better understanding of global situations) and users who start with a general interest in issues concerning the overall population and the economy as a whole. The latter are not a priori interested in the situation of each sex but are led to consider this factor in order to obtain a better comprehension of the global situation.

19. Examples of such potential users are listed below for further consideration in the technical report:

(a) Planners concerned with overall economic and social planning;

(b) Model-builders;

(c) Those concerned with general economic and development decisions, agricultural policies, educational policies, health policies, income policies, monetary and credit policies;

(d) Compilers of aggregate economic statistics and input-output statisticians. Additional data on hitherto ill-documented sectors and activities will improve estimates and reduce discrepancies;

(e) Demographers concerned with population policy, employment and migration, population prospects, resources, environment and development;

(f) Ministries and departments concerned with women's questions;

(g) Women's movements in their fight against discrimination and for "equal pay for equal work".

II. SCOPE AND OBJECTIVES OF NATIONAL ACCOUNTS FOR WOMEN'S CONTRIBUTION TO DEVELOPMENT

20. The second part of the planned technical report will contain a more detailed description of the potential scope of statistics on women's contribution to the economy and development. Some issues to be addressed are discussed below.

21. An initial question is whether measurement should focus on the product contributed by women or the income received by them. In a single-sector analysis of a closed economy, product and income would coincide, but when more than one sector or group within the total is examined and discrimination exists they would not. Changes in the degree of discrimination between sexes would also affect measures of their relative economic contributions.

22. With regard to balancing requirements and obtainability, in the first instance statistics and accounts should focus on employment, wages and value added by women, in absolute and relative terms (relative to the corresponding national totals), with particular emphasis on the non-monetary and informal sectors. The interest in presenting data in relative terms - that is, to show the participation of women

within the national aggregates, implies that the classifications, subdivisions, definitions and valuations used in the statistics on women should be the same as those used in the national aggregates. However, many details of presentation will be different.

23. In order to examine and monitor differential wage treatment related to sex, wage statistics have to cover both sexes. Where necessary and as a special study, estimates can be made, similar to those prepared for national accounts at constant prices, calculating the value of women's contribution at non-discriminatory wages.

24. The main phenomena to be captured by these data are, in addition to employment, the income flows connected to wages and salaries and entrepreneurial income. No attempt should be made at present to estimate flows which correspond to women in the remuneration of capital, though in the future the interest of financial institutions in the preferences of women customers might facilitate development of statistics on the role of women in connection with financial flows.

25. Illustrative accounts, tables and series on women's contribution to the economy would be developed along the lines set out in the table contained in the annex below. They could be organized as follows:

1. Contribution to the economy measured by employment;
2. Contribution to the economy measured by production and income according to SNA standards;
3. Contribution to production outside the production boundary of SNA;
4. Informal sector.

26. The ongoing discussion of the current revision of SNA has revealed the concern to adapt the new version to new problems and policies, including full recognition of the participation of women in development. This question has been raised in the discussions, especially in connection with the household sector. It is expected that the new revision of SNA will establish subsectoring of the household sector, which will result in mutual benefit for statistics and accounts on women's activities and the overall framework of SNA. This will also facilitate development of supplementary accounts, tables and series covering, within item 3 above (Contribution to production outside the production boundary of SNA):

- 3.1 Estimated value of household activities;
- 3.2 Estimated value of voluntary community services.

27. Item 4 (Informal sector), is not explicitly dealt with in most available statistical series. However, if the informal sector is delimited for statistical purposes on the basis of own-account work without regular employees, series on this sector can be calculated. 9/

28. Different aspects of compilation (tables, accounts, matrices, graphs, ratios) will be explained in the technical report, including the following:

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- (a) Basic and supporting tables, related accounts, matrices, graphs and indicators;
- (b) Successive steps in building up the body of necessary data;
- (c) Priorities;
- (d) National requirements and international comparisons;
- (e) Data bases.

III. CONCEPTUAL AND CLASSIFICATION ISSUES

29. In order to provide a firm conceptual foundation for national and international work on national accounts for women's contribution to development, the technical report will provide an extensive review and analysis of relevant statistical concepts and classifications issues. To prepare material for the technical report, and pursuant to the proposals of the Expert Group on Measurement of Women's Income and Their Participation and Production in the Informal Sector, INSTRAW and the Statistical Office of the United Nations Secretariat undertook a review of ongoing work on the revision of SNA and related international recommendations on basic statistical classifications. 10/

30. Analyses and suggestions on how these recommendations might be used to take better account of women's participation in development and in the informal sector were prepared and submitted to the following international meetings: (a) Informal Meeting on Statistics and Indicators on Women, convened by the United Nations Conference of European Statisticians at Geneva from 18 to 20 May 1987; (b) Fourth Expert Group Meeting on Revision of SNA - the Household Sector, held at Florence, Italy, from 29 August to 4 September 1987; (c) Fourteenth International Conference of Labour Statisticians, held at Geneva from 28 October to 6 November 1987; (d) sixth session of the Statistical Office/European Communities Joint Working Group on World Level Classifications, held in Luxembourg from 14 to 18 December 1987.

31. This work has provided important inputs for taking women's concerns and the informal sector into account in the complex process of revising basic international statistical classifications and SNA. The results of these revisions will be thoroughly analysed in the technical report. Some of the main results achieved in the meetings thus far are the following:

(a) The new International Standard Classification of Occupations (ISCO) better reflects the situation of women in the labour market and provides an improved framework for the formulation of policies. One significant change is the distinction now made between market-oriented and subsistence activities in agriculture, a field where women play an important role, both because of the numbers involved and because of the relatively poor coverage attained hitherto. The new design at the one-digit level and the further disaggregation at the 2-, 3- and 4-digit levels will show more clearly how women participate in the labour force

and the kinds of jobs they are engaged in, as the new classification has more detail related to jobs usually performed by women;

(b) The revision of ISCO has shown the importance of revision of the related International Classification of Status in Employment (ICSE), which is to be considered by the Commission under item 6 (b) of the provisional agenda. This classification has a major impact on the analysis of data for policy purposes;

(c) The new International Standard Industrial Classification of All Economic Activities (ISIC) introduces an important change: mixed farming as a group. This is a fundamental economic and social characteristic that should not be lost through statistical aggregation and, though such work is performed by both sexes, ISIC will be very informative on women's work;

(d) The agreements on subsectoring the household sector are a useful basis for the creation of statistics related to the informal sector, and with additional efforts, accounts and tables on women could be prepared. Other decisions taken at the above-mentioned meetings on the revision of SNA that affect women's statistics are the use of the main provider of income as an alternative to the head of the household, and agreement that different sectors may be expanded in different years allowing flexibility to deploy resources in alternate sectors as opportunity permits.

32. These issues are discussed in greater detail below, subject to the final conclusions of the revision processes.

A. Production boundary

33. The definition of production recommended by the Fourth Expert Group Meeting on Revision of SNA - the Household Sector is as follows:

"Production is the creation of goods and services which are exchanged on the market, are capable of being marketed or are produced with factors of production bought in the market". 11/

34. For purposes of compiling statistics on women's contribution to the economies, market and non-market activities should be distinguished as follows:

(a) Market:

Employees;

Entrepreneurship: employers, own-account workers;

Unpaid family workers (enterprise assistants) in marketed production;

(b) Non-market:

Subsistence;

Production for own use;

Voluntary work.

35. Extensions and exclusions relative to the SNA production boundary are currently being considered. How they would affect measurement of women's contribution is discussed below.

1. Extensions

36. The Expert Group recommended that handicrafts for own use produced with inputs bought in the market (baskets, clay pots and plates, textiles, furniture, dressmaking and tailoring) should be included. 12/ These items are currently considered inside the SNA production boundary only when they are also produced on own account for sale in the market and own-account production is a significant proportion of the total production in the country. That condition has been a constraint because the limiting proportion has to be decided a priori in designing the questionnaires, which is difficult. Given an unequal distribution of income this production might be of importance for a large part of the population, but relatively small in total GDP. Another difficulty stems from the need to fix a line between processing activities that are included and those that are not, as in the case of further processing of goods bought as consumption expenditures.

2. Exclusions of services

37. It was agreed by the Expert Group that the only extensions to the production boundary which should be recommended are for the production of goods, because a good, once produced, can be resold. 11/ However, a negative consequence of this position is that persons producing services outside the market sphere (be it for the welfare of the community or the immediate family) are left out of the labour force because only workers involved in productive activities according to SNA are considered economically active.

38. Household production including services should therefore be considered in the development of supplementary accounts. There are two broad categories: those activities performed for the benefit of the community or other households and those for the benefit of the household in which they take place. A supplementary account could be created in order to present a new aggregate reflecting the value of these activities and their characteristics.

39. The first group includes voluntary services for the community and any member of the collectivity might be a recipient of the service. Examples are voluntary work as nurses in hospitals or ambulatory residences, midwives, teachers, firefighters, and the like, as well as services rendered free to a specific family

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or among families such as taking care of children, old persons or sick persons, be they relatives or friends. For the second group it is necessary to establish a criterion to fix the borderline between tasks that should be included and those that should not. The third-person principle is one criterion proposed. It refers to tasks that might be performed by someone different from the person benefiting from them: cooking, cleaning and care of children are included, while own personal care, listening to music and reading are excluded.

40. There are also potential problems in establishing borderlines between household chores that fall inside the SNA boundary and those that are left out. An example is food preservation. These problems should be considered in detail in the technical report.

B. Household and head of household classification

41. The household is the most adequate unit of analysis to study both women who are economically active and women who are not. Women's characteristics relative to the population as a whole and work done by women considered not economically active, the interrelation between women's economic and family roles, the position of women in the household and changes in women's roles should also be considered.

42. It will also be necessary to review the international recommended definition of household and national adaptations which have been used and the implications of various definitions for the statistics needed to measure women's contribution to development. Some series and topics to be considered are provided in the annex below.

C. Economic and related classification issues

43. The following economic and related concepts and classifications will be reviewed in the technical report:

(a) Definition of employment, female unemployment relative to not economically active status;

(b) ISCO: multiple occupations, especially in unspecialized economies; hours of work; digit-level priorities; clear definition of occupations in subsistence activities;

(c) ICSE: influence of cultural patterns; status in employment as a reflection of social and economic inequalities; need for clear distinctions between categories, such as own-account workers compared with unpaid family workers; treatment of domestic servants and outworkers;

(d) ISIC: production boundary; typical female activities; own account work; labour- and capital-intensive services; mixed farming; artisan work compared with the factory type of manufacturing;

(e) Informal sector: definition; differences among countries; danger of assumptions, such as assuming that the employed persons in this sector always receive a lower income than those in the formal sector.

44. The standard classifications concerning employment, occupation and industry are designed for industrialized economies, and though the revised versions aim at including developing economies, the changing relations between the formal and informal sectors and the various characteristics of small-scale businesses are not adequately covered by standard recommendations. Specific surveys are needed. A disproportionally large part of women's occupations fall into the informal sector, so studies in this area should take this fact into account in order to shed light on women's special circumstances.

IV. MEASUREMENT ISSUES

A. Sources of data

45. Sources of data will be discussed in the technical report in terms of coverage and application of concepts and definitions, particularly those related to the extent and nature of women's economic activities; characteristics on which data are collected; frequency; regularity; accuracy; weaknesses; advantages; disadvantages. An overview of this field is given below.

1. Population and housing censuses and surveys

46. The population census is the basic source for information on demographic, economic and social characteristics of the population. The census gives benchmark data, which should then be supplemented by surveys. Surveys can provide in-depth information on the changing roles and status of women, which is vital information for the policy maker not only in relation to women's policies but for overall economic and social planning.

47. Due to misconceptions and stereotypes about women's roles on the part of both respondents and those collecting and compiling statistics, there are often biases against measurement of women's participation in economic activity. When taken into account at the planning stage in designing the questionnaires and in the training provided to enumerators, this weakness can be counteracted.

48. Part-time and diverse economic activities are characteristic of women's work. As the standard classifications of occupation and industry are not suited to showing these situations, women's work is not adequately covered and hence their participation is under-estimated.

2. Economic censuses and surveys

49. The main disadvantages of these sources relate to the fact that their aim is to look into agricultural, industrial or service activities and not to measure the

impact or effect of such activities on the men and women they employ. Often there is no disaggregation by sex, even in the questionnaires. If data by gender were produced in these sources, they might be extremely useful, being areas where economic development is usually measured carefully.

(a) Agricultural censuses and surveys

50. These sources have the advantage, in principle, of covering all units regardless of size. Since agriculture is the main source of livelihood in rural areas, agricultural censuses and surveys might be an important source of data on women living and working there, especially in the case of subsistence economies. Often data on specific agricultural products can be related to informal and subsistence economies.

51. For countries where a large part of the population makes its living from agricultural production, this type of source seems to be the most adequate vehicle to provide information on the individuals (men and women) engaged in this activity, given the scarcity of resources to develop alternative statistical studies.

52. To bring together data from these sources and those obtained from others, it is necessary to adjust the underlying questionnaires in order to include the items necessary for reconciliation, but the increased financial and operational costs will be rewarded. To benefit from this process, co-ordination is needed between the institutions and authorities dedicated to agricultural research on the one hand and women's studies on the other.

(b) Industrial censuses and surveys

53. These sources usually do not cover small-scale units. This is of special importance to women, who often produce handicrafts and other products that need no large capital investments and use traditional techniques. These techniques might be time-intensive and require special skills but can often be carried out parallel to household activities or in between them. As the production of these small-scale units falls inside the production boundary and is included in GDP, industrial censuses or industrial surveys should be extended to cover this area, otherwise the information they provide is under-estimated, precisely in matters that concern women. To be of use the data must include disaggregation by gender and be comparable to SNA concepts.

(c) Censuses and surveys of distributive trades and services

54. The situation in these fields is similar to but more acute than the situation with industrial censuses and surveys, given the dispersion of the numerous small units that engage in service activities, which do not require special equipment and often, though not always, are of a temporary nature.

(d) Establishment surveys

55. Data from these surveys are generally restricted to employees of establishments larger than a certain minimum size and the information refers to what is relevant to the establishments, lacking data on demographic characteristics of individuals or households. Wherever these surveys are available, there is the advantage of using them as a tool for adjustments. Being taken from written documents of the enterprises concerned, the data obtained are more accurate than those from household surveys.

3. Household surveys

56. Household surveys use the household as the sampling unit. The data collected can cover a wide range of topics related both to the household and to the individuals living in it. The information can deal with both the economically active and the not economically active population.

57. The surveys most relevant to the subject of women's contribution to development are those focused on labour force, income and expenditure, household enterprise and time use. Such surveys include questions on income; industry and occupation where income is generated; status in employment; and demographic and social characteristics of individuals. These data can be cross-classified. Specific surveys usually emphasize a different aspect, such as the situation of the labour force; the income sources and types of expenditures of the household; the production of the household enterprise; and the time spent by each family member on different activities.

58. Time-use surveys aim at obtaining data to show the use of time of persons and households in productive and other activities carried out during the week. Since this source is potentially the most complete for present purposes, the design should be done in order to produce results comparable with present employment and production statistics as well as capable of being used in conjunction with alternative concepts of the production boundary. However, this type of survey is expensive and is often limited to main cities, which reduces its usefulness.

4. Specialized surveys

59. These might be undertaken to cover special social, anthropological and health topics.

5. Administrative records

60. These might include records of social welfare institutions, income tax returns, registers of labour unions and records of business organizations.

B. Application of concepts in field work

61. This section of the technical report should review definitions of labour force, monetary and in-kind income, units of observation and types of classification from the point of view of applying them correctly in questionnaires and field work.

C. Existing publications and data availability

62. This section should consider difficulties arising from the scarcity of data, the degree of aggregation of available data, and the limited cross-classification of available statistics.

V. ANALYTICAL ISSUES

A. Methods of valuation

63. The importance of non-marketed production in the compilation of accounts and tables on women's contribution to development has already been noted. Using the framework and principles of SNA, there are two main approaches to valuation of non-marketed production to be considered in the technical report. The first is to assign values to the labour inputs which produce non-marketed production; the second is to estimate the monetary value of the output. In both cases the first step is to determine a "real" or physical quantity indicator and the second is to impute a value to it.

64. In principle, these approaches can be applied whether the production under consideration is within or outside the established SNA production boundary. Each of these cases is considered below.

1. Within the production boundary of SNA

65. Only production for own use that falls within the definition of economic production according to SNA is included here.

66. For labour inputs there are usually two types of measures of quantity: number of workers or number of work-hours. The first is less accurate as a measure of labour input, its main disadvantage being that the unit values vary widely. Following recommendations on labour force statistics, one worker may provide as little as one hour per week of "economic work" and still be counted as economically active. However, information on numbers of persons economically active is available in most sources.

67. The number of work-hours is less frequently known. Many household surveys collect such information, but each person's total work-hours are often classified only according to his or her main activity. Data from time-use surveys are more precise. They include all members of the household and measure the time devoted to each activity by each member.

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68. There are also many cases where production is included in GDP but the corresponding workers are excluded from the labour force. These cases may be important where production for own use is significant, and since a large number of women usually work in this way, a statistical bias against measurement of women's participation may result.

69. There are two methods of calculating values from indicators of labour quantity: use of the average wage (or income) in a comparable activity (or occupation) or use of the minimum wage. A weakness of this approach is that it values the input purely in terms of time and output is considered directly related to time input. However, this assumption is not inconsistent with the situation in the market sphere, where wages are fixed independently of productivity.

70. Alternatively, the value of output can be calculated by imputing a value to the final product. This approach requires that a price for the output be determined, and there are various ways of doing this. Further, the value of the inputs used in production should, in principle, be deducted in order to arrive at the value added, which is the contribution of the producer. In many cases, however, the inputs might be considered negligible.

71. Several different situations may be considered:

(a) Part of the output is sold in the market. In this case, market prices can easily be applied, but even here a choice must be made between producers' prices and retail prices;

(b) The producer does not sell any of the goods or services he or she produces but similar products are available in the market. In this case, the prices from the market can be applied;

(c) Similar products are available in the market; differences in quality are known to be considerable, but are not amenable to measurement;

(d) Products are not marketed at all or in such small quantities that the prices used might not be representative of the price that would prevail if there were in fact a market. This case is not hypothetical but is well-known from empirical studies. One example is vegetable gardening in the Pacific islands.

72. In cases (c) and (d) it seems that only the labour inputs method can be applied. Following the recommendations of the Fourth Expert Group Meeting on Revision of SNA - the Household Sector, imputed labour input should include unpaid work in construction activities and repair and maintenance of dwellings by the owners.

2. Outside the production boundary of SNA

73. In order to value activities and outputs not covered by SNA, the first step is to determine which activities or tasks should be considered. Once the list of activities is established, the next step is to establish a value for each one.

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When time-use statistics are available, it is possible to apply the labour input method. Domestic servants' salaries appear to be the most appropriate to use for this purpose. This procedure can offset the general disadvantage of this method, that is, the assumption that productivity is directly related to the time spent in performing the activity. Here, volunteer work, that is, all voluntary services and service activities for own use, should also be included as these activities are often, and in some cases mainly, performed by women.

74. In valuing outputs not covered by SNA, items to be considered are mostly services. This makes the problem of assessing quality more difficult. Whenever possible, inputs used in the production process should be taken into consideration.

75. One procedure for valuation of output is to measure the volume of output and then apply a unit-value rate to impute a total value. This method avoids problems that arise in applying the time-input method. For example, where several activities take place simultaneously and part of production is sold in the market, there are difficulties in distinguishing the time devoted to each activity or output. In using the output method, the value of production of each activity can be measured. In addition, there is no need to assume that productivity is directly related to the time input.

76. However, it is often very difficult to find products in the market which are closely comparable to those produced in activities carried out outside the production boundary of SNA, especially in developing countries. Though a non-economic good or service might appear to be similar to others considered as economic because it serves to satisfy the same need, in many circumstances they are in fact different products. Caring for children is an example.

77. Some examples of how developed economies have applied this method are as follows: for laundering, the indicators used are the number of loads valued according to the corresponding price in the market; for meals, the number of meals served valued according to the prices in a government-subsidized restaurant; for the care of children and elderly, handicapped or ill persons, the prices used are those paid to foster homes or institutions. The procedure assumes similarity between the process used at home and that used in the market, but this assumption is not always true for developing countries. The studies which recommend this method for developing countries very often put together subsistence activities inside the SNA boundary and domestic activities but use examples taken from the first group only.

78. In any case, time input is irrelevant in this approach. At the Fourth Expert Group Meeting on Revision of SNA - the Household Sector, it was agreed that "the amount of time needed to produce a good is irrelevant as far as the SNA production boundary is concerned ... if the market value is zero then the product has zero value"; though it was also stated that "the question of the allocation and valuation of use of time is important in its own right". 13/

B. Compilation of accounts and tables

79. Statistics on a wide variety of social and economic characteristics relevant to the description of women's contribution to the economy are collected in household surveys and other data sources listed above. The possibilities of combining them are numerous; the problem is to find the cross-classifications most useful for analysis. The difficulty of cross-classification resides not so much in the number and selection of characteristics as in the limited practical possibilities for combining them. At present, statistics on many of these characteristics are published but the available tables do not permit the cross-classifications needed for the specific purpose of showing the contribution of women.

80. The construction of national accounts for women's contribution to development requires cross-classifications which, if not available in published statistics, must be built up from basic data. The alternative procedure, which is to adjust the methodology to existing published data, reduces the scope and reliability of the estimates.

81. Some of the variables needed are at present not even collected, though they might be easily obtained and are useful, not only for women's studies but also in other fields. Coverage of secondary activities, secondary occupations and the corresponding status in employment is of crucial importance for the analysis of the position of women.

82. Illustrative tables and accounts are provided in the annex below as a basis for further development in the technical report. They are only examples, to show the methodology envisaged. Some can be prepared easily, others need special data such as those obtained through time-use studies. Details and definitions of items presented in tables and accounts will be taken up in the technical report.

C. Special analytical indicators

83. Special types of measurements to be considered might include indicators of occupational segregation (comparative analysis between sexes: vertical and horizontal segregation), cohort analysis and life sequence profiles.

VI. THE YEAR 2000 AND BEYOND

84. Few of the ongoing revisions of international classification and accounting systems will produce comprehensive numerical results based on the innovations currently being shaped before the end of the century. In fact, work on these subjects will have to maintain considerable momentum in order to meet the deadlines established. Given the time needed to put into effect changes on an international scale, work will have to proceed without delays or interruptions. By the end of the century it is expected that:

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(a) The subject of women's participation will have found a place in the accounts and tables in many national applications of SNA;

(b) Experience will have been accumulated on the use of satellite or supplementary accounts concerning women;

(c) Economic censuses and surveys will include questions on gender as a basic part of their questionnaires;

(d) Periodic household sample surveys will be tailored to allow better determination of women's participation in the economy.

VII. POINTS FOR DISCUSSION

85. The Commission may wish to:

(a) Discuss the proposed uses, scope and objectives of the planned technical report on national accounts for women's contribution to the economy;

(b) Consider the relevance of the concepts, methods, series and tables reviewed in the present document for inclusion in the report;

(c) Discuss sources of data and ways of improving them for national accounts for women's contribution to the economy;

(d) Suggest types of accounts and tables on women's contribution to development which could be prepared on an experimental basis by interested countries at different stages of development;

(e) Approve publication of a handbook or technical report on the development of supplementary national accounts on women's contribution to the economy, as reviewed in the present document, taking into account the Commission's comments at its present session.

Notes

1/ Report of the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace, Nairobi, 15-26 July 1985 (United Nations publication, Sales No. E.85.IV.10), chap. I, sect. A, para. 120.

2/ INSTRAW/BT/1988/R.5; see also the report of the Board of Trustees of the International Research and Training Institute for the Advancement of Women on its eighth session (E/1988/28).

3/ In their statement, the non-governmental organizations say that "women play an essential role in the rural economy, gathering, producing and processing food for the family, caring for children and fetching fuel and water as well as

Notes (continued)

providing goods and services"; they "urge the Commission on the Status of Women to encourage every effort to reflect the contribution of women to the economy in national accounts as recommended in the Nairobi Forward-looking Strategies for the Advancement of Women, para. 120, and implied in 17 other paragraphs". They point out that "before the basic strategy contained in para. 120 can be implemented and the needs of rural women are truly reflected in national and international planning, an accurate assessment of the work carried out in both the paid and the unpaid sectors of society is essential" (E/CN.6/1988/NGO/5, paras. 1, 5 and 6).

4/ The Minister has said that if women's unpaid work is left out of the national accounts, "we perpetuate a fiction that has damaging effects on women, pushes against true equality, and makes planning of any kind fraught with dangers". See "Count women's work: talking about women's issues in New Zealand", INSTRAW News - Women and Development, 10 (Santo Domingo, 1988), p. 19.

5/ The report of the Expert Group has been issued in document ESA/STAT/AC.29/8-INSTRRAW/AC.3/8 (English only).

6/ Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 129.

7/ The provisional agenda and documentation for the present session of the Statistical Commission were approved by the Economic and Social Council in decision 1987/117.

8/ Revision of SNA is being considered by the Statistical Commission under item 4 (a) of the provisional agenda (see E/CN.3/1989/4).

9/ See the report of the Expert Group (ESA/STAT/AC.29/8-INSTRRAW/AC.3/8) and "Methods of measuring women's participation and production in the informal sector: technical report" (to be issued as a United Nations sales publication).

10/ See the working paper prepared by INSTRRAW and the Statistical Office entitled "Development of the United Nations System of National Accounts and related statistical classifications to take account of women's participation and production in the informal sector: project of the INSTRRAW work programme on women and the informal sector of the economy in collaboration with the United Nations Statistical Office" (English only).

11/ Report of the Fourth Expert Group Meeting on Revision of SNA - the Household Sector, Florence, Italy, 29 August-4 September 1987: working paper prepared by the Statistical Office of the United Nations Secretariat, para. 24.

12/ Ibid., para. 20.

13/ Ibid., para. 23.

Annex

ILLUSTRATIVE TABLES AND ACCOUNTS

A. Time spent and value of household work and community services

1. By economically active female population

Col. 1	Col. 2	Col. 3			Col. 4		
Type of house- hold work	Hours spent	Assumed prices per hour			Imputed values of production		
		<u>a</u>	<u>b</u>	<u>c</u>	<u>a</u>	<u>b</u>	<u>c</u>
Cooking							
Laundry							
...							
Community services							

2. By female population not economically active

Col. 1	Col. 2	Col. 3			Col. 4		
Type of house- hold work	Hours spent	Assumed prices per hour			Imputed values of production		
		<u>a</u>	<u>b</u>	<u>c</u>	<u>a</u>	<u>b</u>	<u>c</u>
Cooking							
Laundry							
...							
Community services							

3. By total female population

Col. 1	Col. 2	Col. 3			Col. 4		
Type of house- hold work	Hours spent	Assumed prices per hour			Imputed values of production		
		<u>a</u>	<u>b</u>	<u>c</u>	<u>a</u>	<u>b</u>	<u>c</u>
Cooking							
Laundry							
...							
Community services							

/...

B. Number of women by type of household work and time spent

Col. 1	Col. 2				
	1-5	6-15	16-25	26-35	36 and more
Type of household work					
Cooking					
Laundry					
...					
Community services					

C. Average hourly remuneration by occupation and sex

Col. 1	Col. 2	
Occupation (ISCO)	Average remuneration	
	<u>Women</u>	<u>Men</u>

D. Hours worked by female population engaged in agricultural activities

Panel 1

Col. 1	Col. 2		Col. 3		Col. 4
Agricultural activities	Number of hours		Number of hours outside agriculture		Number of hours in household chores
	<u>Paid</u>	<u>Unpaid</u>	<u>Paid</u>	<u>Unpaid</u>	

- (1) Main agricultural activity
- (2) Total number of hours in agriculture, main and secondary activities
- (3) Total number of hours in secondary non-agricultural activities
- (4) Domestic service activities outside own household are included in column 3

Panel 2

Col. 1		Col. 2	
Type of activity		Number of hours (1)	
<u>Paid</u>	<u>Unpaid</u>	<u>Paid</u>	<u>Unpaid</u>
Agriculture			
at 4-digit level			
Secondary activities			
outside agriculture			
Household chores			

Hours worked in main and secondary agricultural activities are registered separately, each on corresponding row.

E. Women heads of household a/Panel 1

Col. 1		Col. 2		
		Size of family and main occupation		
Range of household income (1)		<u>No child</u>	<u>1 or 2 children</u>	<u>3 or more children</u>
		ISCO (2)	ISCO (2)	ISCO (2)

(1) Income according to SNA definitions

(2) Domestic servants separately

Panel 2

Col. 1		Col. 2		
		Size of family and main occupation		
Range of household income (1)		<u>No child</u>	<u>1 or 2 children</u>	<u>3 or more children</u>
		ISCO (2)	ISCO (2)	ISCO (2)

(1) Income according to SNA definitions plus imputations for household activities

(2) Domestic servants separately

F. Average number of hours worked by female population
and disposition of production

1. By main occupation

Col. 1		Col. 2		
		Average number of hours worked		
Occupation ISCO	Market	Subsistence	Household chores only	Community services

2. By social strata

Col. 1		Col. 2		
		Average number of hours worked		
Social strata	Market	Subsistence	Household chores only	Community services

3. By range of household income

Col. 1		Col. 2		
		Average number of hours worked		
Range of household income	Market	Subsistence	Household chores only	Community services

G. Production accounts for household activities b/

1. At cost valuation

Inputs bought in the market	Imputed value of production
Imputed labour value	(at cost)
Depreciation of household equipment	
Gross input	Gross output

2. At similar market values

Inputs bought in the market	Imputed value of production
Imputed labour value	
Depreciation of household equipment	
Imputed operating surplus	
Gross input	Gross output

/...

H. Production account for household enterprises managed by women
(same structure as SNA production account)

1. Summary account
2. By (main) kind of activity

Four groups: primary, secondary, trade, and other services

I. Integrated accounts for households headed by women b/

(To be developed)

Notes

a/ "Main provider" might be used rather than head.

b/ "Compensation of employees" should be subdivided by sex in all production accounts and income and outlay accounts.
