

5A17

INSTRAW

United Nations International
Research and Training Institute
for the Advancement of Women



Report

WORKSHOP ON STATISTICS AND INDICATORS ON THE SOCIAL AND ECONOMIC SITUATION OF WOMEN PARTICULARLY IN THE INFORMAL SECTOR

held in Colombo, Sri Lanka
12 - 16 October 1987

Organized by
the Centre for Women's Research (CENWOR)
the Department of Census and Statistics, and
the United Nations International Research and Training
Institute for the Advancement of Women (INSTRAW)
in collaboration with
the Economic and Social Commission for
Asia and the Pacific (ESCAP)
and the United Nations Statistical Office

1987 T
STA-LKA

NOTE

This document has not been officially edited. It has been published by INSTRAW on behalf of the Centre for Women's Research (CENWOR) and the Department of Census and Statistics of Sri Lanka.

REPORT ON THE
WORKSHOP ON STATISTICS AND INDICATORS ON
THE SOCIAL AND ECONOMIC SITUATION OF WOMEN
PARTICULARLY IN THE INFORMAL SECTOR*

Held in Colombo, Sri Lanka
12-16 October 1987

* This workshop was organized by the Centre for Women's Research (CENWOR) and co-sponsored by the Department of Census and Statistics; the International Research and Training Institute for the Advancement of Women (INSTRAW), in collaboration with the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Statistical Office of the United Nations Secretariat.

WORKSHOP ON STATISTICS AND INDICATORS ON
THE SOCIAL AND ECONOMIC SITUATION OF WOMEN
PARTICULARLY IN THE INFORMAL SECTOR

I. INTRODUCTION

The workshop on "Statistics and Indicators on the Social and Economic Situation of Women particularly in the Informal Sector", was organized by the Centre for Women's Research (CENWOR) and co-sponsored by the Department of Census and Statistics and the United Nations International Research and Training Institute for the Advancement of Women (INSTRAW) in collaboration with the Economic Social Commission for Asia and the Pacific and the Statistical Office of the United Nations Secretariat.

The workshop aimed to address the methodological and conceptual problems faced by local researchers in the analysis of household and other socio-economic data. Specifically, the workshop examined existing statistical concepts for their relevance, and the accuracy of data on the participation and contribution of women in national development.

A paper was prepared and presented on each of the five substantive topics of the workshop:

- I. Overview of available data sources;
- II. Review of gender specific social and economic indicators;
- III. Data needs for gender-specific social and economic indicators;
- IV. Problems of data utilization for construction of indicators;
- V. Measures for improvement of data quality and indicators;

Two discussants led the open session discussions, highlighting the main points of the paper, and identified some pertinent issues relevant to the topic. In addition to the open forum, small group discussions were held (see work programme in Annex F).

The workshop participants comprised producers and users of data, who were representatives of the Government ministries and departments, researchers from the Universities and research institutions, representatives of the non-governmental organizations (NGOs) and observers from international organisations based in Sri Lanka.

II. INAUGURAL SESSION

In her introductory remarks, Prof. Swarna Jayaweera, co-ordinator CENWOR, welcomed the participants to the workshop, and expressed her gratitude to Mr. S.M.L. Marikar, Secretary, Ministry of Plan Implementation, for accepting to open the workshop. She noted that as the Secretary of the Ministry with the greatest responsibility for this subject, his presence was an indication of the importance attached to the workshop at national level. Prof. Jayaweera also thanked the INSTRAW representative Ms Marie Paul Aristy, INSTRAW Consultant Dr. Mercedes Concepción, ESCAP representatives, Mr. Laurence Lewis and Ms. Yumiko Tanaka, who had come to assist with the workshop, as well as the high level professionals and administrators who agreed to present papers or act as discussants or prepare comments, for the presentation or chair the various sessions of the workshop. She expressed satisfaction at the response received from institutions and individuals and thanked them all for their participation.

As background, Prof. Jayaweera explained that CENWOR has been engaged, for around two years, in village and household studies. One of the problems that surfaced was, for instance, the discrepancy between the participation rates of women in economic activities as recorded in official data from those reflected in the Centre's field data. In addition to conceptual and methodological problems posed by such discrepancy, CENWOR had also to contend with the lack of adequate gender specific macro and institutional data for the centre's studies, and the need to evolve methodologies to monitor changes in the situation of women. One of the objectives of the workshop was therefore to review the national experience and development in this area and to identify appropriate consultants. In this respect, INSTRAW's assistance in co-sponsoring the workshop and making available the expertise was most appreciated.

Finally, Prof. Jayaweera thanked the Director of the Sri Lanka Foundation Institute for the use of the venue with all its facilities.

The representative of INSTRAW, Ms Marie Paul-Aristy addressed the Workshop. She welcomed the participants and expressed gratitude to CENWOR which, as the Institute's focal point in Sri Lanka, facilitated the organization of the workshop. Ms Paul-Aristy informed the workshop of INSTRAW's programme of activities in developing statistics and indicators on women and development which she said tried to go beyond the standard demographic and labour force statistics. Through training workshops at national and regional levels organized in collaboration with the Statistical Office of the United Nations Secretariat and the Economic Regional Commissions, INSTRAW assisted in the fostering of a dialogue between users and producers of statistics which the Institute hoped would lead to generating improved statistics and indicators on Women in Development.

The INSTRAW representative also referred to another important area of the Institute's work related to the analysis and redefinition of the economic activities of women and their economic production and contribution. The Institute, she said, is placing emphasis both on the methodological approaches and conceptual analysis needed to improve data on women and valuation of their income and production, particularly in the informal sector of the economy, to improve the quality and adequacy of statistics on their economic contribution.

She concluded her address with the hope that the training workshop would contribute to a significant dialogue between users and producers of statistics and that it would respond to an expressed need of the participants present and wished them success in their deliberations.

The ESCAP representative, Ms Yumiko Tanaka, welcomed the participants, noting that ESCAP attached great importance to the work of the national and international organizations for improving sources of information on the status of women in different socio-economic situations. She referred to the recommendations for the establishment of a data base on women and the collection of data segregated by sex adopted at the Asia-Pacific intergovernmental meeting held in 1984 to review and appraise the achievements of the United Nations Decade for women and the resulting ESCAP programme on Women information network for the Asian and Pacific region (WINAP).

She informed the workshop that many training activities on the development of a data base and women's information management as well as publication of a series of newsletters and directories for a women's information system were envisaged by ESCAP to enhance further the regional co-operation in activities destined towards the advancement of women. These activities, she elucidated, would not only activate women's information mechanism at national levels but also provide a regional fora to exchange national experiences on women's issues.

The ESCAP representative concluded her statement by wishing the participants success in their work as the workshop provided an invaluable experience for the betterment of statistics and indicators on the social and economic situation of women in Sri Lanka.

In his address to the workshop, the Secretary, Ministry of Plan Implementation, Mr. S.M.L. Marikar, emphasised the importance of assessing the contribution of women and therefore the need to find ways to a correct measurement of this contribution.

On the status of women, he said that over the ages we have lived in a male-dominated society however some changes in opinion were eminent in recent times. He noted that Sri Lanka did not go through any traumatic experiences of battling for equality of status between men and women, and

this he attributed to the influence of Buddhism and Hinduism and to the Sri Lankan women having access to universal adult franchise at the same time as men.

Mr. Marikar, further stated that reliable statistics and indicators could help to bring about changes in the status of women, although at times women themselves were unaware of what was available. As examples of situations in which statistics had provided the rationale for specific national policies, Mr. Marikar quoted, the well acknowledged sex differences in household expenditures. Women are seen to use family income for productive purposes, while men indulged in conspicuous consumption. A forum such as this, with objectives to: familiarize participants on relevant data; exchange information; assess the appropriateness of available data; and recommend measures for improving quality and analysis of data now in use; could facilitate a dialogue between producers and users of statistics as they pertain to women.

The need for such a gathering, he said, was an outcome of the first International Conference on Women in Mexico in 1975, which revealed that existing statistical systems had not provided an accurate assessment of the situation of women.

Ending his address, Mr. Marikar noted that for a country such as Sri Lanka, where the division between men and women is not too great, it was crucial that the situation of women is analysed in relation to that of men and children. In his own administrative set up the role of women was not considered in isolation because nothing would be achieved by doing so.

III. CLOSING SESSION

The session was chaired by Dr. Daya Samarasinghe, Secretary of Ministry of Women's Affairs and Teaching Hospitals during which the workshop proceeded to a formal adoption of the recommendations which emanated as a result of the plenary and group discussions of the participants. (See Section V).

IV. PRESENTATIONS AND DISCUSSION

A. Session I: Overview of Available Data Sources

The session was chaired by Mr. A.G.W. Nanayakkara, Deputy Director, of Department of Census and Statistics.

Mrs. Suranajana Vidyarante began her presentation with an overview of the data sources and elaborated on the contents of questionnaires used in data collection in the national censuses and sample surveys in Sri Lanka. She noted that there were three main sources of data in Sri Lanka,

censuses of population and housing, of agriculture and of industry; household sample surveys which provide data for updating of census information; and administrative records, which though often limited in content and accessibility for legal and administrative reasons, may for certain types of data be valuable from the standpoint of cost and accuracy.

In historical context, she informed that while the first population census enumeration known to have been carried out in Sri Lanka was in 1789, the earliest enumeration for which records exist was conducted in 1824, and it was not until 1871 that the series of decennial censuses, under legislative provision was initiated. In contrast it was only recently, in 1980 that a regular survey programme was introduced, under the National Household Survey Programme.

The basic information obtained in the population censuses covered four broad topics: demographic and personal characteristics, educational characteristics, economic characteristics and migration characteristics. Questions on nuptiality and fertility, and on infirmity and orphanhood have sometimes been asked.

For the agricultural censuses the unit of enumeration is "agricultural holding" and the topics covered typically include characteristics of the holding such as land utilization, crops cultivation, livestock and poultry reared; employment, farm population - members of staff, labourers etc. on the estates, and for small holdings members of the operator's household, labourers and others; use of agricultural machinery and types of transport facilities, use of fertilizers and farm dressing.

Mrs. Vidyartane further stated that in its survey programme, the Department of Census and Statistics of Sri Lanka had undertaken Labour Force and Socio-economic Surveys in 1980/81 and 1985/86; a Survey of Household Economic activities in 1984/85; and a Survey of Demographic and Social Aspects 1986/87. In addition, a Demographic and Health Survey was conducted in 1987 with technical assistance from the Demographic and Health Survey Programme of the Institute for Resource Development (IRD) Westinghouse and funding from the United States Agency for International Development.

She concluded her presentation with a review of some of the concepts used in the surveys and a list of tables obtained from the household surveys. Among the concepts she discussed was the "head of household" which, in most cases, she noted, referred to the principal bread-winner. In some instances, however, the concept also applied to the senior member of the household or whoever was acknowledged by the other members of the household as head, irrespective of the individual's contribution to the household income. (The full text of the paper is contained in Annex I.)

The discussant, Ms. Myrtle Perera, opened her remarks by saying that one had moved a long way from the days when censuses were instruments of head counts, and heads so counted were primarily those of males. She said that at present, systems of information gathering at national level had also moved away from the conventional concept of economic development. A new concept relevant particularly to developing countries, is based on the maximum use of national strategies of self reliance, integrated and participatory development. This is the challenge that new data systems had to meet.

Referring to the situation of women the discussant said that a significant part of their lives were spent in activities which were not relevant in a monetary or a market system. Such activities and situations were relevant to 49% of the population and to a lesser degree to activities carried out by at least some of the 51% of the male population which virtually were unmeasured. In today's world, she said, one has to become a part of statistics to get attention.

The participants' attention was drawn to the areas of inequality between genders such as: (a) disparities in opportunities and access; (b) rights and privileges; (c) income; (d) participation in development; (e) economic, legal and social disqualifications.

Further on there were some insurmountable limitations to data collection at national level in circumstances such as: (a) the extensive nature of the information; (b) the liability to interact with the subject for any length of time; (c) limitations in training of vast numbers of investigators; (d) limitations in methodology used.

Attention was drawn to another significant dimension, i.e., the cultural and ideological one, which determined gender-based roles, activities, attitudes, perceptions and sanctions within the household. The principal data supplier at the household level was the head of the household who was invariably male, or else there was a male 'spokesman' who was the proper person to respond to 'official' queries. Male perceptions relating to areas such as work, remuneration, hours of work, activity, governed his responses. Female answers to such queries were again biased because she herself subscribed to descriptors bred by ideology and culture. Women were involved in activities and situations which did not always fit the definitions prescribed by data collectors and their life situations did not always lend itself to measurement in the manner required by data systems.

Mention was made of other inconsistencies, which with care and attention could be overcome so as to render the data systems more comparable, complementary and responsive to development needs in a third world country such as Sri Lanka. She cited a few such as the urban rural classification; in the Agriculture Census the focus is on the agricultural 'holding' and the holder while other national data focus on the individual

and the household; a dependency ratio contained within its nurturer group females in the age group 15-44 years who are themselves dependents; the 'household' becomes an institution if it has over 3 lodgers in censuses and National Household Surveys, but has to have 5 lodgers in the labour force and socio-economic surveys; the 'unemployed' population sometimes connotes the "working age" population who are not working whilst at times it is characterized by 'interest' i.e., "those actively seeking work".

The use also of conventional 'value-loaded' terms sometimes strengthened the culture-based perception of roles, functions and such biases flow easily and imperceptibly into quantified data. Definitions and concepts as well as underlying assumptions of conventional economics, were an obstacle to key dynamics of macro-change processes whose base is laid by men and women - by women in particular - at the micro-level and within the ethos of the household.

She further noted that the design of questions at times failed to consider the complex nature of women's work. For example, a man would probably remember the work or activity he did during the 'last week' and 'last year' as required by the census, whilst a woman whose work is characterised by a multiplicity of activity, carried out simultaneously or for short time periods devoted to each, would often fail to keep track of time because it was impractical in a female life context and generally she did not compartmentalise such work in terms of timed occupation.

Another significant limitation was the loss of very valuable information shed in the process of tabulation and categorisation. For example, it would be important to know what particular skills women have when they are categorised under "skilled labour". Again when women are stated to be "vocationally trained", it would make a difference if it was known whether women are training in mat-weaving whilst men trained in welding or telecommunications.

The timeliness of information is important if policy formulation is to be relevant and minor disaggregations which are crucial to form a factual assessment of women's situations often come too late. Information crucial to planning and intervention such as resources, inputs, skills, space, assets, tools, equipment used by women is not available, for example, in the national household sample survey as economic activities. These are areas where women often become dependent on a male or on a male-oriented system.

Country peculiarities demand specific indicators and the rural household in Sri Lanka is currently caught in a maelstrom of developmental activities which need to be studied and understood.

Most national, and consequently, global imbalances in information systems, spring from a view of populations as conglomeration of people.

It is clear that if people are to become protagonists of change, endorse and internalize development strategies, the subtle and complex macro-micro linkages should be understood and clarified by deeper analysis, including cultural, social, political, including the economic perspectives of society at its most dynamic and resilient level of the family and household. A highly romanticised concept of the 'home' dominates the scene in most cultures and conceals its vast complexities as well as its relevance to development strategies.

There is therefore, a convergence of pressures on researchers to identify and study families and households. It arises out of unresolved problems faced particularly by developing countries in making development work and taking people to where development objectives should be.

The persistent poverty, ignorance, disease and malnutrition in spite of decades of welfare strategies, advance of science and medicine, baffles planners. Why will a mother not immunize her child against disease when such immunization is available free, or why if she desires a small family, knows how to achieve it, does she not practice family planning?

Have development strategies failed to see and understand the equations which govern the lives of the primary deliverer of development functions at its basic level - the female in the home?

The probing and understanding of such imponderables is best done by micro-level research using different modalities and seeking dimensions from those sought in national information systems. In depth research can sharpen and sensitise concepts, definitions and assumptions conventionally used in national data collection systems. Such studies, however, are limited to specific locations, topics and sub-populations at the level of the household and family. The interactions between the researcher and the subject are both intensive and uninhibited, they probe the attitude behind the casual response, they seek a defined subject for dialogue dispensing with the usual family spokesman. They check responses with observation and move with those whose lives and situations are being studied. Common techniques adopted in such research studies are therefore intense dialogue, participant observation, time use studies, life history studies, group focus discussions. There are however, limitations to such studies as for instance; lack of dissemination; difficulty in assessing the objectivity of the study; validity of findings from small samples; non-acceptability of less conventional techniques; reliance on judgement and interpretation rather than on rigorous statistical methods.

The discussant, Dr. A.T.P.L. Abeykone, congratulated Mr. Nanayakkara and Mrs. Vidyaratne for preparing a comprehensive paper on "Available Data Sources", and the discussant suggested that before reviewing data sources, the concepts applied to capture the socio-economic status of women and the definitions being used to measure them, should be

examined noting that these issues were to be taken up subsequently, in greater depth, during the course of the seminar, Dr. Abeykone went on to illustrate some of the issues reviewed in Mr. Nanayakkara's paper, and focussed on a few of the concepts commonly used in censuses and surveys.

He stated that data on literacy have been collected in Sri Lanka since the 1881 census. However, information on educational attainment was collected in 1953 census from a sample, but has since 1963 census been collected from the entire population. Educational attainment information is tabulated and published under five categories namely no schooling, passed grades 1-4, passed grades 5-9, passed G.C.E. O-level and passed higher qualifications. It is therefore not possible to isolate the category of women who have attained higher qualifications. However, since 1971, data from censuses and surveys conducted by the Department of Census and Statistics have been computerized and are available on tape, and could therefore, be disaggregated, or re-grouped according to research needs and interests.

Census data on marital status are available from 1901 onwards. In addition, socio-economic and demographic surveys have also collected this information. From data on marital status one can obtain the proportion of women who are single, married, widowed, divorced or legally separated. One can also compute the mean age at marriage. Apart from Censuses and Surveys, data on marriages are available on an annual basis from the Registrar General's Department for all the 25 administrative districts.

On employment and unemployment, Mr. Abeykone noted that data on occupation have been available since the 1871 Census, though information of employed female population by industry and status have been available only since the 1946 Census. Definitions of these concepts have changed with changes in socio-economic status of the population. Socio-economic surveys and labour force surveys also provide data on the economically active population. Data on employed population when classified by status provide valuable information, particularly the economic activities in the informal sector. This information could be obtained for (a) unpaid family workers (most of whom are females), and (b) own account workers or the self-employed. Data on economic activity in the informal sector are also available from the Survey of Household Economic Activities conducted during 1984/85. Data on female unemployment are available from the 1963, 1971 and 1981 censuses and other socio-economic and labour force surveys.

In addition to censuses and surveys conducted by the Department of Census and Statistics, the Central Bank has also provided useful data on economic activity of the population through Consumer Finance Surveys conducted since 1953, and Labour Force Participation Rates Survey of 1973 and the Land and Labour Utilization Survey of 1975.

The discussant further informed that data on fertility were first collected in the 1946 Census and then on a sample basis in 1953 and 1971

censuses. In addition, three important surveys: the 1974 Sri Lanka World Fertility Survey, the 1982 Contraceptive Prevalence Survey and the 1987 Demographic and Health Survey provide valuable and reliable information on fertility behaviour of married females in Sri Lanka. In these fertility surveys, unlike in the Censuses, information on fertility has been collected from females themselves. He observed that the Registrar General's Department also collects data on births by age of mother on an annual basis for all administrative districts of the country, and that lately, data by age of mother and parity have been collected. This permits one to examine what proportion of births occurs for a given parity in a geographic area.

He also noted that data on mortality by sex and age, are collected annually by the Registrar General's Department. In addition, information by sex and cause of death is also compiled. The Medical Statistician of the Ministry of Health also furnishes data on mortality and morbidity. The Demographic and Social Aspects Survey of 1986/87 and the Demographic and Health Survey of 1987 also collected information on health of the population.

On immigration, the discussant stated that in recent years, female migration for employment has become an important aspect of both internal and international migration. Data on place of birth and place of usual residence collected on a sample basis during the 1971 and 1981 censuses enabled one to compute inter-district migration streams for females during the inter-censal period 1971 to 1981. Surveys conducted by the Ministry of Plan Implementation and the Bureau of Foreign Employment provide information on women who have migrated to the Gulf States for employment.

During the open forum, it was noted that while sex is a key variable, in research, data was not always tabulated by sex.

It was noted, for example, that in some instances the survey of the manufacturing sector did not collect data by sex and in addition, apart from censuses and surveys carried out by the Department of Census and Statistics (DCS) and the Central Bank, there are other institutions which collect data but are not classified by sex. It was suggested that the DCS make this classification obligatory, at least for the institutions served by DCS staff or in situations where the DCS staff make tabulation plans.

Responding to requests for clarification on why concepts and definitions differed between census and surveys, Mrs. Vidyaratne explained that adoption of a different definition is sometimes imperative to improve the measurement and in keeping with international recommendations she noted that a conscious effort is made to maintain comparability, and the data is presented in a manner which allowed for some flexibility.

It was generally acknowledged that changes in concepts are sometimes needed and when such changes are made it is sometimes inevitable that comparability is lost.

Other issues raised during the open forum concerned: (i) why some tables presented only percentages, and no absolute numbers; (ii) whether it would be possible to obtain from agriculture; censuses tabulated information on owners by sex; (iii) whether data on the arrangements made by mothers to look after the children when the mother is away, is available; (iv) whether a test is administered in determining literacy, to which participants were informed that while so far it has not been possible to perform tests for determining literacy of respondents a test had been pretested in one of the NHSCP surveys; (v) whether it was possible to identify the number of women entrepreneurs?

In response to these questions, participants were informed that when sample sizes are too small, numbers are not given for small levels of disaggregation.

A point of clarification on employment survey of the Labour Department, was sought. Could this survey first done in 1971 be used for analysis of trends, although it may not be possible to draw inferences on relationships because of compositional change. The participants were informed that it was possible and data by sex are available.

It was also explained that the concept of operational holding was entirely different from the concept of the operator, and while the information on the farm was available the sex of owner was not.

It was further mentioned that the question, "Who takes care of the children while you are at work?" was asked but the categories were persons, and "other" which could be reclassified if the number is large enough and if there is a demand for it.

It was noted that identifying the number of women entrepreneurs would be difficult and the information obtained would not necessarily be meaningful.

The session ended with the remarks of the Chairperson Mr. Korale, Director Department of Census and Statistics, who suggested that users investigate whether a question on sex is included in data collection schedules, and if so, if tables request disaggregation by sex.

B. Session II: Review of gender-specific social and economic indicators

The lecturer for this session Dr. Gamini Abeysekera, Deputy Director of Banking Development, Central Bank of Sri Lanka, was introduced by the chairperson for the session, Dr. Swarna Jayaweera, co-ordinator of CENWOR.

In a brief presentation of his paper Dr. Abeysekera noted that little use has been made of an enormous amount of gender-specific data available since the early 1930's, and there is insufficient emphasis on the importance of gender-specific development indicators due more to lack of interest in this field than absence of data. Reviewing the importance of gender-specific social and economic indicators Dr. Abeysekera explained that processing and systematically analysing data was essential since data do not by themselves convey any meaningful information. In this context he emphasized that indicators are important to determine the status, change and progression of any system.

Indicators, he added, are qualitative or quantitative signals on a given situation and reflect the changes between different situations across segments of the population or over time. Indicators may be categorized in several ways: general and specific; direct and indirect; real and monetary; input and output; simple and complex; or qualitative and quantitative. These categorizations are based, respectively, on whether the indicators refer to an entire population or area, or refer specifically to a sector, region or a group; whether the indicators are based on actual measurements or are merely reflections or manifestations of a given situation; whether the weights of measure are standardized or unstandardized in monetary terms; whether the indicators refer to attempts to assess progress, or to the end product/result of these attempts; whether the method of computation is simple or complicated; or whether the indicators refer to quantifiable entities.

He enumerated several of the indicators and sources of data for their compilation, the most common of which he said were the demographic indicators. Data for these indicators are for most countries obtained from censuses and surveys. Biological indicators deal with physical characteristics such as weight, height, strength and disability and, unlike demographic indicators, this category of indicators are rarely used in analysis of development issues and the data used are not easily obtained from censuses. He also noted that social indicators generally refer to such characteristics as education, health and people's involvement or participation in the development process and there is generally some overlap of social and demographic indicators. For instance, indicators on mortality and fertility typically thought of as demographic, may be considered social in certain contexts. Economic indicators generally refer to national income related measures such as per capita income, rate of growth, equity of distribution of income or related variables etc.

On a cautionary note, Dr. Abeysekera noted that the list of indicators is an ever growing one and therefore, the issues of data and resource constraints have often to be confronted in the development of a system for their compilation. For a general guideline he suggested that selection of key indicators should be guided by availability and reliability of data; the relevance and significance of the information;

comparability of indicators and their sensitivity to changes over time. Gender-specific indicators in particular should, he said, be developed with view to identifying and assessing the differences in performance and outcomes pertaining to each sex.

Dr. Abeysekera concluded his presentation noting some potential limitations and misuses of indicators. He emphasized that indicators may sometimes convey a too simplistic message of a complex situation and that since indicators are often expressed in terms of ratios, rates, proportions or coefficients applied to a selected number of variables some important intermediary variables may be omitted. Some limitations of indicators may arise from problems of measurement of variables, inadequate coverage of data collection, ambiguities in the application of concepts, and deficiencies in the unit of analysis, as well as interpretation of the indicators. He noted that there was also the potential for misuse of indicators, primarily in the selection and interpretation of indicators and in his concluding remarks, stressed that misuse of indicators should not be tolerated. (The full text of the paper is contained in Annex II.)

In his discussion of Dr. Abeysekera's paper, Dr. Nimal Fernando stated that the paper was a very systematical and comprehensive review of gender-specific social and economic indicators, which as the paper clearly points out is increasingly being emphasized. The emphasis is largely related to the realization that the term "development" has to be defined in a more meaningful way, and for this a number of variables, such as the level of poverty, different facets of poverty, unemployment and nutrition become important. The pattern for the compilation of statistics on many variables has been that only after the policy makers have identified a phenomenon as important for policy purposes do the collection of data and the construction of indicators on the phenomenon occur.

The discussant echoed the point made by Dr. Abeysekera that one should not depend too much or solely on a set of social and/or economic indicators, nor ignore the interrelationship between different factors and their impact on the socio-economic indicators stressing that in using indicators more attention be paid on the underlying processes. He noted that unless adequate attention is paid to processes contributing to the situation which the particular indicator is attempting to measure it is unlikely that the situation would be understood in totality and interpretations far removed from the reality, consequently leading to inadequate or erroneous policy prescriptions. Indicators, he underscored are only one set of factors that help us to understand a situation. They may be necessary but not sufficient to thoroughly grasp the real forces behind changes or absence of changes.

Following this brief introduction, the discussant elaborated on some issues raised, noting that at both micro and macro levels gender-specific social and economic indicators available in Sri Lanka did not give a clear picture of the pattern of distribution of different kinds of resources. For example the data are not amenable to ascertaining at

the macro level, of the extent to which females in the rural sector have access to goods and services provided by the state and at the micro-level particularly at the household level, very little gender-specific information is available on household access to and the distribution of resources. Dr. Fernando reminded the participants that it was of crucial importance that the data addressed such questions as how does inflation affect women and school-going female children. How vulnerable are they in comparison to males, to changes in the market prices of goods they sell and goods they purchase. How do changes in terms of trade of a household influence the welfare of females and males. To what extent is female welfare sacrificed in the poor families in favour of a higher level of welfare for the males. These were some questions that a research institution devoted to women's studies could perhaps raise particularly as these were the kinds of data and indicators not sought in the past and there was need to respond to the present demands.

Noting the paucity of a range of micro-level social and economic indicators of selected poverty groups, Dr. Fernando explained that planners and policy-makers have until quite recently focused their attention on growth in general which have brought only marginal or no benefits to the majority of the poor. The available range of social and economic indicators based on 'averages' masks wide disparities in the distribution of resources and access to a wide array of public assistance and economic opportunities generated by the development programmes, and it was necessary to generate relevant data for the planning and implementation of projects as well as for policy decisions. Such efforts, according to the discussant, although costly are nevertheless necessary in order to address on a regular basis the urgent demand for statistics on 'basic need' demands which included a wide range of useful social and economic indicators.

In conclusion, the discussant underlined the importance of defining the gender-specific social and economic indicators in the context of what was meant by "development" and in particular what the government was trying to achieve. He referred to the view among some researchers that "the underlying theme of development has been to imitate the West in terms of the form and content of their economic performance, and warned of the "developed failures" or the substantial "costs of development" resulting from thinking of development as "replication of the West or having what the West has now".

The second discussant, Dr. Samaranayaka, congratulated the author for his very comprehensive and innovative presentation on "Gender-Specific Social Indicators" and concurred with Dr. Abeysekara that in the current context, economic development is defined in relation to a large number of variables which reflect the prevailing socio-economic characteristics of the society. As economic development passes through different stages, the statistical base also gradually expands and the need for new socio-economic indicators becomes important. He noted that Dr. Abeysekara had in his presentation, clearly distinguished between

statistics and indicators and discussed in detail the main characteristics of socio-economic indicators which he categorised into demographic, biological, economic and social.

The discussant went on to define the gender-specific indicators and referred to the disaggregation of socio-economic data by sex or more specifically by male and female, stating that the purpose of disaggregation of any data was to obtain information on subsets of the population in order to review and analyse their specific characteristics. In socio-economic analysis, researchers and analysts often disaggregate data in terms of urban and rural residence because the empirical data in developing countries have shown a significant urban-rural difference in some important socio-economic characteristics such as income distribution. The recent focus on gender-specific indicators in developing countries has arisen because research has uncovered a marked degree of variation of socio-economic characteristics between male and female. Such variation should be clearly understood in order to design appropriate policies to correct such disparities and it is for this purpose that the gender-specific socio-economic indicators become important statistical instruments.

Despite Sri Lanka being a developing country, its statistical data base is quite comprehensive compared to most developing countries and its data base is more reliable and accurate in comparison with some countries in the Asian and African regions. In Somalia, for example, the census of population was incomplete due to the difficulties encountered in enumerating the migrant and nomadic populations.

Dr. Samaranayaka pointed out that the statistical information generated by various institutions to develop useful socio-economic indicators have not been utilized sufficiently, and urged users of statistics to utilize to the maximum possible extent in order to provide feed back to these organizations on the specific requirements of users. He explained that without such feed back the organizations could not refine the collection and processing of data to suit user requirements, and that it is only by scrutinizing and analysing the data that existing inadequacies in the currently available statistical systems would be detected and rectified.

For example, in the 1981 census, 1.3 million of the female population in the working age group were reported as not wanting to work. This he thought was unbelievably high, for a country like Sri Lanka where nearly 50 percent of the population lives below the poverty line. Further investigation is needed into why this sizeable female population did not want to work, or the reasons why they declare that they do not want to work in order to determine their activity status. If it is shown that the lack of job opportunities is the reason then they should be part of the labour force, and this situation would call for economic policies designed to get these women more involved in gainful employment. If however, they are not interested in working, then the policy makers will have to consider alternative policies to draw them into the labour force.

Commenting on relationship between male/female school drop-out rate and the rate of unemployment of women, a participant noted that education and work are not necessarily related as, in the case of women, education can be made use of even if a woman is not engaged in economic activity. Findings of a study done by the Women's Bureau showed that among a sample of 2400 women all wanted to work, even at the age of 60, and also valued education both for girls and boys.

It was the general view that such cases further underline the need for in-depth probing into the available data, and that greater emphasis should be put on the reasons underlying the available statistics.

On improving the dialogue between the users and producers of data, users were urged to ask for any data not available. In this context some participants wanted clarification on the accessibility of the data at the Central Bank. It was explained that according to the policy of the Central Bank requests for data must be from a recognized agency and, depending on the method of storage, the data user may not be allowed to remove the material from the Bank premises.

On the issue of why indicators are not available especially on the status of women, it was explained that the general lack of interest on such areas is in part responsible. Also mentioned was the fact that often men at decision-making level were less sensitive to the needs of the under-privileged in society.

It was also observed that the present situation is a result of the past definitions of development and that the situation was expected to improve as in recent times, development was being redefined and there was growing interest on poverty and poverty groups.

Another issue discussed was the degree of obscurity female activities generally faced which was linked to the type of information collected. Given that the State usually looked at what is visible, it was felt that the standard indicator was not enough to guide the policy makers to the trouble spots. For example, female rate of participation in voluntary groups was not a fair indicator to evaluate their authority in community affairs.

Dr. Abeysekera concluded the session by reiterating the need for the better use of available data as well as the need to create a demand for additional data.

Issues for discussion on session I and II during the working group discussions were: 1. The Department of Census and Statistics paper has listed the tables that are or will be available from the sample surveys. To generate the social and economic indicators needed to describe the situation of women in Sri Lanka what modifications can you suggest in these tables titled to suit your purpose? 2. Given the limitation of

census and surveys to generate information on specific population sub-groups such as the poorest of the poor or sub-national areas such as the districts, what sources can we tap to obtain the statistics required for intervention programmes directed to these sub-groups on sub-national areas?

C. Session III: Data needs for gender-specific
social and economic indicators

The chairperson for the session, Dr. Priyani E. Soyza invited Dr. Swarna Jayaweera to make her presentation, which was to be followed by a brief presentation by Mrs. Yumiko Tanaka of ESCAP.

The presentation of Ms Swarna Jayaweera focussed on the availability and accessibility of data and their relevance for the compilation of gender specific social and economic indicators. She recalled that the increasing attention given to developing appropriate indicators on the situation of women was one of the most significant achievements of the United Nations Decade for Women.

In her view, prevailing assumptions and stereotypes about the role and status of women in society are due largely to the fact that data have hitherto not accurately reflected the realities of their situation. Promotion of gender equality and human rights was conditional on generating data that would facilitate analysis of the levels and causes of male and female disparities in all spheres of life. Data needs must, she emphasized, therefore encompass many areas and take into account the interaction between societal norms and family or individual behaviour, together with external pressures. In this context she mentioned that data should reflect the fact that the family is the basic unit of society and that the plurality of the Sri Lankan society, dictates that data should cover three dimensions: gender, class and ethnicity, and time.

On the availability of data for gender-specific indicators Ms Jayaweera highlighted the relative deficiency of migration data and noted that despite the glaring evidence of exodus of skilled and unskilled worker overseas, relevant data are not yet collected in national or other large surveys. In the sphere of education she reported that sex-disaggregated data on literacy and educational attainment are routinely published in census reports but data on enrolment and retention are lacking or incomplete in this and many other sources of data. She informed that there is an abundance of data generated annually by the Ministry of Education, the information on schools, teachers and student enrolment, attendance, and repetition but that these have never been made available to the public.

Ms Jayaweera identified some biases in the concepts used in data collection, pointing out that while the census attempts to identify the

"discouraged workers" and classify them as unemployed, women who might also be "discouraged workers" tend to be classified within the housewife category. Furthermore the heads of households are typically males except in households of female single parents and unmarried women.

Summarizing the problem of paucity of data for gender specific research, Ms Jayaweera attributed this to the tendency to dichotomize roles of men and women and the inherent assumption that the male is the sole breadwinner and woman the sole housekeeper, and even when women work they are presumed to be merely secondary or supplementary income earners. These assumptions prevail in spite of evidence from studies showing that women very often are equal contributors to family or household income, particularly in the low income strata of the society, and increasingly are the primary or sole income earners.

In conclusion, Ms Jayaweera called for formulation of strategies for expanding the scope of data collection, presentation and analysis, and identified key areas for additional gender specific and distinct or community level data collection and compilation of indicators. (The full text of the paper is contained in Annex III.)

Ms Y. Tanaka, ESCAP, supplemented the lecturer's presentation on the data needs for gender-specific socio-economic indicators, introducing the recommendations adopted at the Regional Seminar on the Development of Women's Information Network for Asia and the Pacific (WINAP) held in Tokyo in December 1986.

The seminar recommended that all countries in the region should carefully collect selected lists of key indicators for monitoring the situation of women and suggested a list of about eighty indicators under eight major categories, namely, demographic and health, education, economic participation, legal rights, political participation, access to social services, government allocation of resources for women's concerns and social indicators for women at special risk.

Ms Tanaka also emphasized the recommendation of the Seminar, that a woman's socio-economic task force should be established to ensure that the indicators be improved in terms of the relevance of the data to woman's pressing concerns. Preferably this should be done within the government bureaucracy, eg: with representatives from the departments dealing with statistics, planning, women's issues etc.

It was also pointed out that WINAP's long-term objectives are to gather, analyse and disseminate not only numeric but also bibliographic data and information related to women in development in order to provide a channel for promoting co-operative activities. Development and improvement of gender-specific socio-economic indicators, therefore, will continue to be promoted under the WINAP programme as part of the overall development of women's information systems and networks in the region.

Commenting on Dr. Jayaweera's paper, Mrs. M.M. Veerasingham felt that the author analysed the issues in detail and presented very lucidly the situation in Sri Lanka. Gender-specific data and indicators are needed to obtain a realistic picture of the situation of women of the country.

Although mention is made of integrating women in the development process, of planning for women, of Women in Development programmes and including the women component in all project proposals, only limited, inadequate, gender-biased data are available. Action is often based on assumptions and stereotypes that prevail in respect of the status and roles of women. As demonstrated in the case of the Mahaweli Project, in which only "Home Development Centres" were planned for women who play such a major role in development, women's work for national development is clearly not counted.

Again Dr. Jayaweera rightly focussed on the need for data to promote gender equality and human rights and social justice. Data and indicators are needed to measure the status of women which is assumed to be never changing, uniformly applicable to all, a sort of "homogenous" concept, - ignoring the fact that we live in a pluralistic society with ethnic, religious, caste and class differences.

The lack of a data base for planning where the real position of women is not reflected affects policy formulation, planning and evaluation and is an obstacle to bringing the needed programmes and services to women.

Data are also needed to identify disparities between men and women and their access to and control of resources and services, e.g. training in agriculture is given to male farmers; boat mechanics training is offered only to sons of fishermen, although women do the servicing of the boat for their fathers and brothers. The gap between availability and accessibility of data must be bridged. As stated earlier, small focused sample surveys, though limited in scope, are important and need to be publicized and made available. These, along with studies by private research groups are important to obtain insights into data needs. Data are needed on five areas which would give a more accurate picture on the socio-economic status of women:

(a) Migration:

Do women, particularly young women or families migrate? What is the impact of migration on family relations? Do men stay in the urban areas while women and families encroach on settlement lands with a view to claiming allotments? Most of the girls in the Free Trade Zone industries are they from rural areas? Most of the girls in the Detention Homes are they from rural areas?

Are the women who go for domestic and other work abroad skilled or unskilled? What countries do they go to? What are their literacy levels? This information is not gathered not even by the labour department of the Bureau of Foreign Employment or agencies.

Has migration increased women's resources? Has this contributed to the quality of life or as a result has there been family crisis, family distress and child deprivation? These are some areas excellent for specific studies.

(b) Education:

More information on 'drop outs' by groups and ages is needed. What are their family and parental situations, economic and cultural situations? What is the educational situation of women on plantations and of special groups like Muslim women in slum areas? Women's perceptions on various aspects of education are needed.

(c) Health

Some areas where data is still needed is statistics to be disaggregated for women's gynecological and obstetrical diseases, anaemia, malignancies, mental illness, depression, suicide. Indicators are required on the occupational health of women industrial workers and data on the impact of the primary health care system on women.

(d) Economy:

Data on self-employed women in income-generating activities are also necessary. Most of the self-employed women are never counted although some earn over Rs. 1500 per month. It is possible that in the near future and this trend has already started, women will work at home as "home workers", for large enterprises doing piece work for wages in weaving, knitting, electronics, lace-making, etc. Data and indicators for purposes of "wage protectionism" are crucial.

Women in industry, women in services and sales are generally marginalized from the labour force. Women in the garment industry, nursing aids, door-to-door sales girls and the like are generally low-paid, unorganized and exploited and need protection and services.

Women in the Free Trade Zone are a special category. Data are scanty as to the exact numbers or the industries concerned. It is difficult to identify the many industries all over the island that have women workers.

Women are not happy being mere 'housewives' in Sri Lanka, they want to be employed and want to work outside the home. In a recent survey done by the Women's Bureau, in 3 villages featuring a sample of 2042 women, the majority said they wanted to work outside the home as well.

It was mentioned by the speaker that an important indicator of the economic situation of women would be their access to and control of economic resources. For this purpose information is required on land ownership, income, savings, investments, land-holding patterns, spending and decision making in the household. It is true that usually men own land but sometimes women own the land. Then, the patterns are different and data on these situations are needed. What impact do these situations have on women?

Women's agricultural production has been reported in statistics in 'man hours' and computed at an acceptable lesser rate than that of men. Economic independence is a measure of economic status. The Women's Bureau survey revealed that in families where women were employed and men unemployed, women assumed the role of decision-makers. The family is the primary unit in society and the position of women is closely associated with their position in the family. The family has to be studied, quantitative and qualitative analysis have to be undertaken on various aspects of the family, e.g.: ownership of land, house resources, labour and skills, decision-making, values and child-caring.

The effect of consumerism and inflation on families needs to be known. Studies on marriage patterns and systems of dowry and how it affects women are needed.

(e) Poverty:

Studies on levels of poverty, indicators of poverty, the reason for selecting Rs 600/ as the poverty line should be undertaken. Pockets of urban poverty, rural poverty need to be studied. The Conference of the United Nations on The Decade for Women: Equality, Development and Peace in Nairobi in 1985, drew attention to the fact that by the year 2000 the world's poor would be mainly composed of women.

Other areas where information and study are needed is on the social assistance system and women - here it should be recalled that more than half of the Public Assistance goes to women with dependent children. Areas for future study should include: deserted wives, women beggars, prostitutes, alcoholic and women drug-addicts, incidence of violence against women, battered women, rape, family crisis situations, criminal and civil offenses, women refugees and war widows, the handicapped and disabled women, and aged women.

Studies are also needed on credit and marketing and women's involvement, shelter and housing for women and women-headed households.

Information on environment, pollution, zoning for industry and the impact of all these aspects on women and families are needed. More data on communication and mass media systems and programmes popular amongst women are needed.

Data on appropriate technology as applied to women, adult education, vocational education and training of women.

Some quantitative or qualitative indicators should be developed for measuring decision-making, competency, building, access and aspirations of qualified women to managerial and administrative positions, reasons why women are not at the top when they are qualified and deserving.

Indicators for planning and decision-making incorporating women's perspectives on national plans have to be developed.

Data on women's participation in politics at all levels, parliamentary, District Development Council, Pradeshiya Saba District Council, Gramodaya Mandalayas, local government and in party politics are needed. Indicators to measure "women's political will", voting decisions, voting patterns, their views on party and political issues are needed.

Data on voluntary work and women's participation in community organization, on self-employment and income generating activities need to be noted.

Further, indicators to cover payment for childcare systems to be woven into the wage structure of women or into the taxing system of women need to be explored since it is probable that women will continue working even with young children.

It is up to the government and non-governmental agencies to introduce changes in the system as needed. Women's groups need knowledge of, and access to, data systems and indicators on women for use in planning and integrating issues of concern to women in development.

Ms Sonali Deraniyagala, in her discussion, also remarked that Dr. Jayaweera's paper which was extremely comprehensive and enlightening in its survey of gender-specific data needs, had raised two central issues. First, the serious inadequacies in data collection, especially in relation to socio-economic issues; and secondly the conceptual problems inherent in quantitative indicators. Noting that the conceptualization of women's work is crucially important because practical implications for data collection follow from those concepts, Ms Deraniyagala proceeded to highlight and expand some of the conceptual issues raised in the paper.

She said that any accurate assessment of women's work must examine three areas of economic activity - domestic activity, subsistence activity and formal market activity. It was also necessary to draw the link

between these areas of activity and understand the dynamics between them. These areas can be analysed at a conceptual level in terms of certain basic flaws in the definition of what constitutes an economic activity. This definition is based on a fundamental assumption that household production is not an economic activity, but an activity of consumption. It is assumed that subsistence production consists of goods normally not sold in the market but for household consumption. This however ignores the fact that in a developing country domestic work also encompassed a high degree of economic production, e.g. the various stages of food production.

The interest to measure women's work in surveys that include the subsistence informal sector is due to this overlapping of domestic and subsistence activity. Therefore, it is necessary to develop the analysis of the domestic economy and its relation to both the subsistence and formal sectors. For this purpose, detailed indicators of domestic work which reveal the extent to which it overlaps with subsistence economic activity are required. Constructing such indicators will help remove a common paradox found in developing countries where the local economy often survives due to women's involvement in the subsistence sector while men are unemployed and yet official statistics show low labour force participation rates for women.

Another point mentioned was that the concept of economically active, or labour force should be extended. Economic activity should be redefined so as to relate it to human welfare - perhaps in terms of a basic needs strategy - rather than to a narrow category of economic growth or commodity production. This would be useful if we were to assess the nature of the "double day" of work that women perform.

Moving on from the conceptual issues, the discussant briefly raised some points relating to the practical aspect of data needs on the economic status of women. She believed that it is essential to construct indicators which reveal the extent to which economic growth has depended on the contribution of women and also how the pattern of growth has affected female participation. Data in this area are seriously lacking.

She noted, for instance, that industrial surveys do not give a detailed breakdown of skill levels on a gender basis. This information would enable labour market structures and the role of women within these structures to be assessed. Another crucial area would be the measurement of productivity by gender, in order to assess the contribution of women to output growth. Productivity estimates must also be linked to a more detailed gender analysis in wage statistics by levels of skill, occupation group and industrial sectors. Detailed data are also necessary on the nature of the labour process in relation to women - type of work, hours of work, intensity of work, etc.

Such information will permit existing beliefs that women's work is marginal to the production process in most industries and sectors to be

challenged. Whether women's work although marginal in terms of wages, skill plays an essential and central role in the main areas of production can also be assessed. Such a detailed understanding of women's position within the labour market and in relation to the labour process will also reveal the extent to which economic growth both within specific industries and broader sectors, is a result of production by women.

The Chairperson stressed the importance of filling gaps, if any, in gender-wise breakdown of information available as well as of having a data information bank, especially as there was plenty of data already available. In addition to gender specific information, she felt that there was a need for disaggregation of information by ethnic groups, district and region.

With reference to questions raised relating to availability of data and statistics on education, a representative of the Ministry of Education informed that these statistics were distributed by the Ministry to the concerned institutions. However, the group expressed that the Ministry of Education had no gender-wise information nor information on drop outs available and it would be useful that whatever information the Ministry had should be published.

Regarding data on the migration of women to the Middle East, participants were informed that the Department of Labour did not divulge any information, especially on the incidence of deaths and mishaps that women faced while abroad. The Departments' policy of not divulging information was explained in part by the ban on the release of such information, which was in force, and by the fact that most recruitments do not take place through the Department or private agencies but through personal contacts and therefore information available was not official.

The participants felt that the Sri Lanka Bureau of Foreign Employment should be directly responsible, for collecting such data, and the immigration department would also have some relevant information. Compiling data from the immigration records at the airport was one way of obtaining some, albeit, skimpy information on migration.

The need to cross reference data separating sections for women's participation in public life and levels at which they participate, was stressed.

It was also mentioned that conceptual issues should be stressed and in this context it was noted that there might be a need to redefine social and cultural issues and rethinking of the present models. This process some felt had already begun but a problem area is with the informal sector where women themselves are reluctant to admit that they are working and indicate the type of work they do.

An example was the women coir workers who though they actually worked, did not admit to working but said that they 'did nothing' whenever

they were asked about their work. It was presumed that such women did not want to report their earnings. Consequently participants felt that the type of question and the manner in which it was asked influenced the response obtained; and perhaps 'going to work' had different connotations for such women.

It was further observed that present day researchers who are knowledgeable in Sinhala and Tamil and not in English, found that no surveys were available in Sinhala and Tamil, and a suggestion was put forth that data be made available in the two indigenous languages.

The Chairman in concluding the session stressed the need for accurate and correct data which was vital in planning for women and development.

Issues for discussion on this topic during the working group session were: 1. The paper on Data Needs for Gender-Specific Social and Economic Indicators listed three common assumptions which affect the collection and availability of data. Can you mention some other assumptions or misconceptions which should be explored and/or tested in order to improve information on the social and economic situation of women? 2. What special indicators can be constructed to examine the situation of specific groups of the population such as factory workers in the Free Trade Zones, women left behind by male migrants, females who engage in piece work at home and the like?

D. Session IV: Problems of data utilization for construction of indicators

The chairman, Dr. Ananda Meegama, Project Officer, Applied Research and Evaluation, UNICEF, introduced Mr. Lawrence Lewis, the ESCAP Regional Adviser on Population Censuses and Surveys and the two discussants Ms. Soma de Silva and Ms. Lalitha Gunawardena.

In presenting his paper, "Problems of Data Utilization for Construction of Indicators" Mr. Lewis stated it highlights the main weaknesses and strengths of the chief sources from which data could be drawn for the compilation of statistics on the situation of women: population censuses, sample surveys, service statistics, and administrative records.

On the systems of economic classifications, the paper suggests the following reasons why the data fail to capture the economic contribution of women.

- (a) In the current system of National Accounts (SNA) the boundaries to final consumption, which involves a great deal of activities by women in the informal sector are unclear and broad.

Difficulties of attaching a value to the own account and subsistence activities and their consequent exclusion from SNA causes significant biases in the estimates and precludes meaningful comparisons.

- (b) A similar problem of defining boundaries in the inclusion of household workers exist in the measurement of labour force. The crucial, yet hazy boundaries are the classification of type of activity, and duration of work, questions of reference period and definition of potentially active persons make the measurement of labour force very complex and difficult. Reference period affects the type of activity and thereby the criterion for inclusion in the labour force. It also has a direct influence on the volume of unemployment.
- (c) Classifications of occupation and industry could create boundaries for the inclusion of the subsistence and many of the informal activities carried out by the housewives by virtue of the fact that the present classifications better suit the economies of developed countries rather than of countries where the informal sector is a significant component of the economy.

The paper identifies the need to establish a dialogue with national statistical offices at the stage of designing data collection strategies; review understanding and interpretation of concepts and definitions in order to fully exploit the data available. In addition, gaining access to and acquiring ability to harness unpublished data through the purchase of summary tapes to be processed on own computer or establishing a link via computer terminal was emphasised; and the lack of these facilities identified as constraints which severely hamper the utility of large scale data for national and subnational levels collected at great expense by National Statistical Offices.

Finally, the paper points out the importance of clearly defining the objectives and strong articulation of data needs, improving methodology for sampling taking into account variability of factors to be measured in order to reduce and control sampling errors so as to yield high quality data.

Creation of standards for evaluation of the situation, is essential. Absence of such standards makes it impossible to set targets. What is needed are not statistics on women by themselves, but relative to other groups in the social infrastructure. Equally important are statistics for subgroups of women. Standards, comparisons and differentials provide the basis of evaluation and improvement for which statistics and indicators are but instruments.

The discussant, Ms. Soma de Silva summarized the issues identified in the paper presented by Mr. Lewis as problems and discussed possible approaches for addressing some of the issues from the stand point of producers of data.

The discussant noted that the problems in utilising data concern primarily availability and accessibility, conceptual and operational measurement inadequacies, and interpretation. Availability and accessibility, she stated was of greatest concern at this early phase of undertaking an assessment of the situation of women through compilation of statistics and indicators.

Availability of data is a function of demand, on the part of users, and the ability to collect them on the part of producers. Until a few years ago, statistical data were collected as a matter of routine; the type of data collected simply followed tradition and published and unpublished data lay in their volumes within the confines of closed cupboards in dusty libraries. In the discussant's view, the situation has changed with social and economic progress, as emphasis is increasingly placed on efficient planning, defining development targets and reaching them. The demand for statistical data, monitoring and evaluation of achievement of these goals lead to a situation where data, did come to be used and as a result of it the statistical data producing machinery of the country has grown. Today, in Sri Lanka, there exists a situation of a reasonably capable government statistical system and emerging demands for data arise from many different quarters and on varying aspects.

It is in this environment that the need for statistics on the situation of women has come to be felt. A wealth of data is already available from censuses, surveys and other sources; and certainly more are needed. However, to assess the adequacy of the data and their relevance to the situation of women, it is an unquestionable pre-requisite to define quantitatively, and qualitatively, the social and economic development goals set or desired for women within the broad development strategy of the country. Following which data needed for analysis of the condition of women with respect to each goal is identified. The user can then examine the available data, evaluate their strengths and weaknesses and ascertain which data are not currently available. This process enables the user to clearly and forcefully articulate the data to be accorded high priority by the Government statistical office in the data collection system.

The discussant remarked that the workshop was taking place at a very opportune time when the Department of Census and Statistics is carrying out the preliminary activities for conducting the 1991 Census of Population and Housing. She emphasized that recommendations of this workshop on data required at national and subnational level on the social and economic situation of women could be forwarded to the Department for consideration to be included at the next census. In this context, it is

encouraging to note that, the Department of Census and Statistics is planning to canvass information pertaining to women from a replicate sample at the next census.

On the accessibility of data, she noted that urgent action is needed to increase the users access to the mass of statistical data collected by a large number of agencies, and as a first step it is necessary to establish an on-line catalogued library of all data sources. This she explained, would provide the user with the opportunities of knowing the materials available on a given subject. A second step is to make available and popularise the use of data tapes.

The creation of a data library requires good co-ordination among all data producing agencies, and perhaps regulations which make it obligatory for these agencies to report the nature of data collected to a central agency which maintains the library and a recommendation to this effect could be made by the workshop.

The second concern of data utilization, is the inadequacies of the conceptual, operational and measurement procedures, are discussed within specific subject contexts. It would be very fruitful for this workshop to identify the variables which reflect the social and economic aspects of women, such as, demographic situation, educational attainment, income levels household activities, recreational facilities, the desire and the freedom to share in the decision-making at home, opportunities for occupational mobility, etc., and for each variable, suggest a conceptual and operational definition for its measurement including a measuring instrument. This workshop could also suggest some measurements which could capture relevant aspects of female participation in informal sector economic activity and justify its importance, and thus could be included in the female replicate sample of the 1991 census.

The third concern, the analysis of statistical data, their interpretation, and presentation of recommendations is a matter for the user. However, in an era where statistical data are becoming increasingly available and dissemination of printed messages is easy, both procedures and the analysts of data carry a great responsibility which is to ensure that statistics are reliable, and interpretations not only valid but placed in proper perspective. Producers on their part should ensure that definitions, concepts and measuring instruments are made available along with data. Analysts should consider what bearing these limitations of data have on their inferences and in the presentation of interpretations to policy makers or the general public.

The second discussant, Ms Lalitha Gunawardena, noted that the paper focuses mainly on the problems of various classifications used to measure economic activities of women particularly in the informal sector one of which deals with household activities and the System of National Accounts. Elaborating on the concepts, she explained that when production takes place at an establishment and when sales take place, even if the

production takes place in the household, these activities could be easily included within the economic production system. But in the case of own-account production which is neither sold nor exchanged and is used only for own consumption, problems arise as to their treatment. These services would have to be valued and there is little agreement about how such activities could be measured in a satisfactory manner. Some may attempt to value them according to the time spent, most of this work then will be of very low value. Others have suggested using opportunity costs. But here too, there would be a wide variation in costing.

The second classification system relates to the measurement of the labour force, which she observed is tied to assigning persons time to economically achieved activities. However, in this case too, when activities take place in an identifiable work place, there are few problems created in classification, but when economic activities are performed in the household they are more difficult to treat and would require definition.

The discussant stated that these problems have been cited in some of the papers already presented. Some of these concern definitions of those considered within the labour force as well as the definitions used to identify the unemployed within a given reference period. There are also other problems where, for instance, the head of household or respondent may conceal the fact that a woman is employed. As a case in point in the agricultural sector richer farmers consider that the non-working wife carries higher social status within the community.

Focussing on specific problems that arise in measuring incomes and economic status of home-based activities of women, she noted that there are large numbers of women engaged in such activities, and who are most often the sole income earners, and also fall within the category of those with very low education and of extremely low income strata.

The problems of measurement arise because such women perform more than one task: for example, preparing food at home (stringhoppers or hoppers) on their own or assisted by unpaid family members, for sale in the market, perform simultaneously a number of other activities such as child care and numerous household chores. An attempt by an enumerator to calculate the income derived from the sale of food, is thwarted by many problems as these women do not have any accounts of costs of ingredients, hours spent on such activity nor are there any records of quantities sold, which vary from day to day. Furthermore, part of the ingredients bought for the preparation of the food for sale would be used for home consumption. Considering that this is the dominant way of life of a large number of women in the poorest categories, some serious thought should be given to the important issue of how can income be computed in such cases.

Participants expressed doubt that the 1% sample proposed in the 1991 Census would pick up significant information because of the small size of the sample. They were informed that the 10% sample of the initial

10% sample (i.e. replicable sampling), had been proposed in order to meet special requests of users, and the objective is to ascertain more detailed information from a smaller sample, because traditionally in the larger sample the information gathered such as age, sex, etc., were not very meaningful.

Mr. Lewis explained the structure of the 1991 Census to the participants. As in the 1981 census some questions would be addressed to 10% of the population, due to a very heavy demand for information. The primary concern was to collect as much information as possible without undue strain on the staff. He pointed out that 10% was equal to 17,000 persons and because of the hierarchy of the sample, answers would have been obtained from those in the first sample, then more questions from the 10% sample (out of the original 10% sample). It was thus possible to cross classify on the basis of any of those questions.

The following issues were then discussed: (i) the loss in information in censuses; (ii) incompatibilities in the United Nations and the International Labour Organization classifications; and iii) what changes are being effected in definitions pursuant to recommendations of the International Organizations and in conformity with requirements of donor governments.

Mr. Lewis informed that every effort is being made to minimize the loss of census information. The DCS's effort is to capture as much information as possible, therefore much information is coded and transferred onto the computer, in order to limit the scope for loss which is more likely when information is stored in handwritten form.

He pointed out that the revision of the international system of classifications involved organizations within the United Nations family and that they worked closely together to ensure that the concepts, definitions and classifications were as comparable as possible.

Nevertheless he continued that no country should introduce changes because of outside pressure and that any changes made should meet national needs. Classifications used should be adapted to national needs and said that it may be possible to effect changes in classification schemes in such a way as to retain comparability between the 1981 and 1991 census data.

The question of the System of National Accounts to include "household activities" and the related definitional problems were considered. It was remarked that as women comprise 50 per cent of the population sex breakdowns of such indicators should automatically be presented.

Attention was drawn to the fact that the focus should be on what is actually needed. Two important considerations are: Why some activities of the household are excluded, that is, is it for minimum labour input;

and how they are excluded, that is, is the exclusion on the basis of gender. A more important issue is to see whether national data collections systems could adopt some degree of flexibility and assess whether boundaries be "pushed", and if surveys should take special note of the limitations of these classifications and look beyond the boundaries to accommodate the needs of users.

It was felt that collecting information in only the main activity raised the question of the "invisible, intractable, obscure work of the female", especially participation in informal activities. Questions related to "Principal activity in the last 30 days" or with the "minimum input of 1 day labour" exclude a large number of the active population specially women. While the sample size was considered an important issue in household surveys, it was observed that poor questions would yield poor data, irrespective of the size of the sample. Small samples in which good questions were used allowed indepth studies. It was therefore suggested that more case studies be used to highlight where the developmental problems lay. With respect to the value of small samples, it was recalled that the UNICEF Immunization and Malnutrition programmes could not have taken place if small sample studies had not been undertaken.

The Chairperson noted that the standard of living and earning capacity of women tea pluckers, women rubber tappers were constantly affected by fluctuations in world prices of these commodities and called for more data in these areas, not only statistical surveys but also small anthropological studies to help understand how people particularly women are earning income and making a living.

On improving the quality of data on the activities of women, participants were reminded of the limitations to what information censuses could collect on household activity. It was suggested that time use studies be carried out to analyse the variations in housewives work to complement the information obtained from censuses and large surveys.

Reference was made to the Indonesian experience, that if the response to the question "What did you do last week?", was housekeeping, then another question was asked: "Did you do any other work for 1 hour last week?" If the answer to the second question was in the affirmative, the respondent was classified as "economically active", and included in the labour force.

Issues for discussion on this topic during the working group session were: 1. The next Population and Housing Census of Sri Lanka will be undertaken in 1991. (a) What questions can you suggest to the Department of Census and Statistics to ensure that much of the data required to measure the social and economic contributions of women will be collected? (b) What problems do you foresee encountering to ensure that these questions are indeed included in the 1991 census? 2. What changes can you recommend in the concepts and definitions of labour force

participation, production of goods and services, employment and unemployment, so that the economic activities of women, particularly in the informal sector, can be fully reflected?

E. Session V: Measures for improvement of data
quality and indicators

The session was chaired by Dr. Gamini Abeysekera, with Mr. R. B. M. Korale, Director, Department of Census and Statistics, as the main presenter and Dr. Meegama and Dr. Pinnaduwa as discussants.

Mr. R.B.M. Korale, in his presentation, reported that several missions by international and national personnel have been undertaken to evaluate the national statistical systems of data collection in view to improve the quality of data and socio-economic indicators. With specific reference to improving statistics on the status of women, he drew attention to a recent paper by M.S. Fong (1987) which had identified three main areas for action, namely: extensive programme of household surveys to collect data on women; development of data collection modules for the 1990 round of censuses; and elaboration of mini-survey and alternative forms of data collection for project and programme monitoring of women's activities.

The development of a statistical system to meet these wide range of objectives was, he noted highly dependent on the availability of resources which he said in turn determined the pace of achievement of the projected targets. While every effort was made to seek bilateral and multilateral assistance and technical support to strengthen the statistics system, resource constraints continue to be the main inhibiting factor.

Data generated within the statistical system, Mr. Korale, informed were produced by the Department of Census and Statistics (DCS) which is the primary statistical agency of the government; the Central Bank which has since its inception produced statistics on general economic variables and has since 1953 conducted a decennial survey of consumer finances and in addition conducts a survey of manufacturing industries, an annual establishment survey of employed in the public sector and also collects data on wages and prices; as well as government ministries and private research organizations such as Marga which have some responsibility for collection of primary data. Coordination of these different statistical data collection exercises are arranged by DCS through deployment of staff to the government departments and ministries which engage in primary data collection and processing.

Mr. Korale went on to discuss the different surveys that have been conducted, focussing on the requirements for a good and well executed survey. Among the topics discussed were: the revision and enforcement of statistical enactments which he said are needed to ensure compliance of respondents and improve both response and accuracy of the information

collected; and strengthening and formalizing users' involvement in the data collection processes in order to improve both the data gathering operation and service to users. The data processing capacity, that is the stock of equipment and availability of trained personnel, were identified as crucial factors influencing the quality and timeliness of the data. The shortage of adequately trained cadres for data processing was he noted exacerbated by difficulties in retaining trained and experienced staff because of poor remuneration.

Elaborating on the conceptual issues in data collection Mr. Korale informed that the concepts and definitions used in data collections have been framed with due consideration for the need for international comparability, convenience of use, expert advice and requirements of funding agencies. At the national level, there is the additional consideration, to standardize definitions and concepts used by all the organizations engaged in the production of statistical data. He stressed that the measurements of socio-economic conditions are extremely sensitive to the concepts and definitions used in data collection and suggested that a careful review of the interview schedule is often necessary to ensure that modifications made to concepts and order of questions do not cause any significant variation in the estimates.

Finally, Mr. Korale discussed the problem of paucity of data of adequate coverage and reliability, noting that the construction of indicators based on poor quality data, would serve little purpose. The quality of data would have to be carefully evaluated and the excessive use of estimations and assumptions avoided. (For the full text of Mr. Korale's presentation see Annex V).

Dr. Anada Meegama, in his reaction to R.B.M. Korale's paper stressed that:

- (a) An attempt should be made to get volunteers from the community to carry out surveys in key points of the country, for example the drought-ridden areas, by getting school teachers as volunteers. A review of disparities in salaries of personnel, in particular the problems of the salary scales for programmers should be reviewed to correct the anomaly.
- (b) Publications should contain a digest easily read by the public, and the DCS publications should contain, on the back cover, a list of the department's and the Central Bank's publications on that subject
- (c) The high cost payment (rupees one thousand five hundred per computer hour) of requesting tabulations to be done by the DCS was out of reach of most researchers. The DCS recruit 2 or 3 more programmers in order to supply users with the required information, free of charge.

He also suggested that:

Statistics on individual loans should not refer only to those whom loans were granted but should also include investigative statistics such as loan applications rejected by characteristics of applicants.

The discussant, Dr. S. Pinnaduwaage, noted that Mr. Korale's paper identifies the need for quality data by some major data producers in the country. The paper elaborates on four measures to improve data quality: (a) Development of institutional infrastructure; (b) Improvement of technological capability; (c) Staffing and manpower development; and (d) Improvement of survey and census taking capability, and under these four major aspects, raises several issues which need attention. These are: (i) the need for physical facilities and services; (ii) communication between field and office personnel; (iii) statistical legislation; (iv) interaction between data producers and users; (v) data processing capacity; (vi) improvement of census cartography; and (vii) the need for trained personnel, both male and female.

Also mentioned are some issues relating to concepts and definitions as they apply to surveys and censuses.

In general, all these aspects and issues are relevant and applicable to all sorts of data producers whether they are individuals, small-scale organizations or national level institutions like the Department of Census and Statistics. However their relevance is more pronounced in the latter situations.

The discussant noted that, in the context of the socio-economic situation of women, particularly in the informal sector, it is pertinent to look into the different methodologies that are available to the researcher/data producer in arriving at quality data which can speak of situations with confidence and reliability. It was remarked that the workshop had focussed much attention on the survey and census methodologies almost at the neglect of other methods. This at a time when several researchers have challenged the use of survey method in studying social phenomena, particularly at micro-level.

The discussant therefore proposed to look, very briefly, into the different types of data and the methods available for socio-economic data collection including that of survey methodology, and to mention some of the measures for improvement of data quality.

The sources of data may be classified broadly under primary and secondary sources.

Primary sources are the original documents, the first reporting of facts the first grouping of the raw data, such as data gathered by means

of questionnaires, interviews, and various records kept at institutions.

Secondary sources bring together facts from primary sources, in the form of administrative reports of government departments and non-governmental organizations, including those of censuses, and other reports of research institutions and individuals.

Of these, we have little control over quality in the case of secondary sources. Primary sources lend themselves to the quality control - as these will reveal data in their original disaggregated form. However, they are still based on definitions, concepts, units as used by the respective data producer and may not always be suitable for one's needs.

To the extent possible, best use must be made of these sources for these can supplement the information data that individuals or groups may collect through their own efforts.

In situations of programme preparation, monitoring and evaluation, the data collectors can do a lot to ensure data quality. In this connection, we can raise five guiding questions:

1. What do you want to know?

This would depend on the objective of the exercise. For instance, what are the questions you want answered by your evaluation? Such specificity would enable you to ask the right questions.

2. Where and how will the information be obtained?

Where? - from whom? - males, females, factory workers.

How? This relates to the different methodologies of sampling and data collection survey including postal surveys, participant and non-participant observation, case studies, secondary sources, etc. questionnaire construction.

3. Who will collect the information? Researcher himself or through research assistants?

4. How will the information be analyzed?

5. What does it mean?

During the discussions on the quality of information it was noted that: on migration information, place of birth may not be accurate, as many women who came to have their babies in hospitals in Colombo give the place of birth of their children as Colombo. For more accurate information it was proposed the use of district of birth or place of residence. Furthermore, social and cultural practices such as the young

mother going to the parents' home for delivery, necessitate having both place of birth and area of birth. Also, many parents register the births of their children in Colombo in order to gain admission to schools.

On the issue of confidentiality of information, it was stated that the existing legislations, Census and Statistics Ordinances, require persons to give information, but the information is treated as confidential. Census officials are protected by these legislations to publish the data; others are not. Nevertheless, the statistics office had great difficulty dealing with industries when collecting information.

Participants noted the difficulties in obtaining information on income. Respondents fear to answer questions, imagining that there is a catch.

Mr. Korale informed that it was not easy to do a good family budget survey, and most difficult in the rural sector. However, there is very good data available for research purposes. It was also noted that reasonably good quality information is being gathered and given to policy makers, and is also available to the general public.

Some participants were concerned that requests for additional data or improved quality information are met with statements about how difficult these were to obtain. Consequently researchers are left to conduct only small studies, the results of which are usually available to policy planners.

The discussion turned to broad issues such as the issue of enumerating those engaged in activities in the informal sector. It was observed that the data base has improved over time and it is possible to get some information on industry, employment status - occupation - from censuses, on classified geographical basis. From the 1981 census data poverty groups and their location, particularly in the urban sector can be identified. However, more detailed information on the informal sector should be derived from small surveys.

The need for national statistical systems to be sharpened by and complemented with case studies was also emphasized.

In response to a question on whether definitions could be changed to include informal sector activities, it was stated that the definitions currently encompass all, except housekeeping activities. While, ILO has been changing definitions, the respective countries are left to decide, whether the new definitions are to be adopted and how they are to be adapted to the specific cities of the country.

Observing that statistics tend to underestimate women's activities in the labour market, women should be asked further questions to capture other activities in which they are engaged.

When clarification was sought on the availability of computers at district level for data processing how could they be used to speed up the processing of data from the field, and whether the coding system could be improved to get e.g., education levels, technical and vocational training, participants were reminded of the serious questions of retaining personnel, and were informed that for the elementary levels, more detailed information was available for the elementary levels, but for technical and vocational qualification because of a lack of consistency between training programmes differentiation of the types of training could not be obtained.

In concluding, the discussion the Chairperson, Mr. Abeysekera, emphasized that demand generates data supply. He suggested that one should start with what was available and subsequently identify ways of refining the concepts and methods of data collection and extending their context.

Issues for discussion on this topic during the working group session were:

1. Mr. Korale's paper on Measures for Improvement of Data Quality and Indicators contains many suggestions for improvement of the quality of data collected by the DCS. In terms of the discussions in the past few days, what additional suggestions can you offer to improve data collection in the future as well as the construction of indicators? 2. As users of the data currently available what improvements can be done to make the data more relevant to the users' needs, particularly those doing studies on women's issues?

V. RECOMMENDATIONS

With Dr. Daya Samarasinghe, Secretary of Ministry of Women's Affairs and Teaching Hospitals, as chairperson, the Chief Rapporteur, Dr. Thana Sanmugan presented the draft recommendations which were approved by the workshop as modified.

The workshop made a number of recommendations relevant to the following topics:

A. Availability of and accesibility to accurate data on women

1) Enumerators should be trained to:

a) collect information taking into consideration that the respondent, the household head, usually a male, provides the information for the women in the household as well as other members. Even when the woman fills the form she very often consults the husband.

- b) extract as much information as possible from the women themselves.
- 2) Censuses and surveys should provide cross tabulations to include marital status, ethnic groups and to classify heads of households by sex as required by user agencies.
 - 3) Regarding "economically active" women, there is a need for educating the enumerators and respondents regarding the concepts involved.
 - 4) With reference to the unemployed population, in the case of women, a breakdown by (i) those actively seeking work, (ii) those who are available for work, and (iii) those not economically active during the reference period should be included.
 - 5) Concepts and definitions used for economically active population in censuses and surveys, as well as those utilized for housing censuses, should be re-examined.
 - 6) There is need for continuous dialogue between producers and users of data at the questionnaire design stage and at tabulation stage, rather than the links now maintained through requests, by mail for comments on questionnaires addressed to some of the data users. Regular meetings should also be held to review data availability, accessibility and dissemination.
 - 7) A directory of institutes/agencies collecting data showing the level for which such data are available, the frequency of collection, and the areas covered, be published and widely disseminated by the Ministry of Plan Implementation; with CENWOR and the Ministry of Women's Affairs and Teaching Hospitals possibly collaborating in this undertaking to ensure that data on women are appropriately covered.
 - 8) The appropriate mechanism should be established so that users of census and survey data can have access to unpublished statistics.
 - 9) Data from sample surveys and micro-studies should be reported in as much detail as possible, including definitions and methodology employed, so that the users can have a better understanding of the material collected.
 - 10) The group recommended that other sources of data, such as the research undertaken by Universities, NGOs, Research Institutes, and Special Projects like the Integrated Rural Development Projects, be tapped to obtain more relevant statistics.

- 11) Offices of Assistant Government Agents (AGAs) should, with the permission of the Home Ministry, have separate units to provide detailed social, demographic and economic information to users who need such information.
- 12) Terminology to be used in data collection forms should be carefully reviewed and due consideration given to the importance of how the questions are formulated.
- 13) Definitions utilized at national level should be further refined to suit local needs and later aggregated to maintain international comparability.

B. Gender-specific indicators and data needs

A number of views were expressed and suggestions made by the workshop regarding data classification by gender. The group recommended that:

- 1) Where various government departments maintain records, the Director, Department of Census and Statistics, should request that data be collected and presented on a gender-specific basis; and further the Women's Bureau should assist the Director, Department of Census and Statistics, in this task.
- 2) Census Department officials should hold a dialogue with appropriate groups for the purpose of refining the definition of gender-biased words like farmer, home maker, housewife; and such concepts as employment and informal sector in order to generate improved gender-specific information.
- 3) Further studies should be undertaken on the concept of head of household in order to determine the actual head of household, as opposed to the notion that the principal income earner, or the oldest male member, is the perceived household head.
- 4) Selection of respondents should not be based on stereotypes, as for example, inquiries on health, nutrition and family planning programmes are focussed on women and labour force surveys are generally directed to males.
- 5) Where feasible, household income should be reported by age and sex of contributors. In consumption and expenditure surveys the distribution of resources by age and sex should be indicated.
- 6) Data for gender-specific indicators should be collected to cover the following specific vulnerable groups.

- a) Women overseas migrant workers and their families
- b) Women left behind by male migrants
- c) Women workers in the Free Trade Zones
- d) Home-based women workers/self employed in the poor income groups
- e) Slum and shanty dwellers
- f) Male and female prostitutes
- g) Beggars and street families
- h) Refugees
- i) Single parent families
- j) Female heads of households
- k) Disabled persons
- l) Sweat-shop workers

These data should be comprised of the following variables:

- a) Family income
- b) Educational attainment of family members
- c) Skill levels
- d) Economic activities and participation rates
- e) Age of the women
- f) Number and age of children
- g) Dependency ratio
- h) Food stamp recipients
- i) Indicators of housing conditions
 - (i) Square area of house per person
 - (ii) Water Supply
 - (iii) Sanitation facilities: type of toilet
- j) District of origin
 - (i) For internal migrants, current residence and years of stay
 - (ii) For overseas workers, duration of stay abroad
- k) Ethnic group
- l) Religion
- m) Mortality and morbidity rates
- n) Marital status
- o) Family planning practice
- p) Child care arrangements
- q) Occupational hazards
- r) Hours of work
- s) Night workers
- t) Incidence of absenteeism
- u) Health and welfare facilities
- v) Amount and frequency of remittances to family

- w) Access to credit facilities
- x) Investments and savings
- y) Indebtedness (amount and source)
- z) Proportions of female-headed and male-headed households (for the appropriate groups)

C. Additional areas for data needs by gender

The group recognized the great need and importance to collect additional data to measure women's economic and social contributions. Accordingly, the following information was recommended for collection.

- 1) Income levels being one of the most important determinants of the status of women, a question ought to be included in the census on individual ownership of property by gender. Currently, property ownership is given in the census only on a household basis (the property of the members taken together). The following items were suggested:
 - a) Gender specific ownership of: (i) assets; (ii) land; and (iii) house
 - b) Investments made by males and females
 - c) Savings of males and females
 - d) Foreign earnings by sex: remittances made by those who earn incomes abroad are to be recorded in the name of the particular individual and not as the income of the household
- 2) As the question used in census enumerations regarding internal and external migration will not reveal the actual situation unless it is thoroughly probed, the term 'usual place of residence' needs further clarification and if found to be inadequate for capturing internal migrants, an extra column be provided for eliciting the relevant information.
- 3) Since statistics on external migration could be collected from the embarkation cards, the data should be computerized so that further analysis on gender-specific issues could be obtained.
- 4) Existing records maintained by the Ministry of Education do not give reasons for leaving. Gender-specific information should be collected on school drop-outs with emphasis on relevant details such as reasons for leaving school. Questions should be formulated to include current age, year of leaving school and reason for leaving. If such information cannot be collected by the census, the data should be obtained through other means.

- 5) To elicit information on the skills of women (other than their normal educational achievements), a question such as "Have you received any special vocational training to enable you to do some work?" should be included in the Household Surveys.
- 6) The Election reports should publish the voting participation by gender, as this is not done at present.
- 7) Data regarding the estate sector should be provided separately without combining it with the rural sector.
- 8) For its Survey on Manufacturing Industries, the Department of Census and Statistics should use the same classification as the Wages Board Ordinance to be able to use the associated information regarding female labour participation.
- 9) The term "own account worker" as defined in the Census does not cover many activities performed by women, such as agricultural operations, home gardening, brick-making, coconut picking, trading etc. Hence a definition of the informal sector and subsequent gender-specific classifications should aim to yield most of the information on economic activities of women, which would otherwise be lost.
- 10) A classification listing the kind of employment possible in the "informal sector" and "own account" status should be made, and there should be a redefinition of the term "employment" to include the informal sector.
- 11) Though household chores are not considered as "work" and are not remunerated, there are some activities performed in the home such as looking after the sick, the aged, etc., which should be valued. Therefore, enumerators should be trained to probe into these activities thus reflecting the multiplicity of women's activities within the home.
- 12) The term "work" should be clearly defined to include all activities performed both within and outside the household which is to be viewed as both a production and a consumption unit. Therefore, "work" would include the following three categories: (i) work in relation to produce made for market purposes; (ii) work for barter such as for exchanging items within the neighbourhood; (iii) work for home-consumption only.

Furthermore, inconsistencies were noticed in the census enumeration and processing of the responses of females on principal activity as against the males. In order to solve this problem a new set of questions should be introduced into the Census such as:

Question 1: "What did you do during the last 30 days?" If the answer is not in the affirmative, the next question should be asked.

Question 2: "Were you engaged in any other activities eg: transplanting, weeding, home gardening, selling produce at a fair, etc?"

Then if the respondent claims to have engaged in any of these activities, she should be classified as employed.

- 13) The definition of the term "unpaid family worker" should be reviewed particularly in the context of the new definition proposed for "work".

D. Improvement of data quality

The following suggestions were made to improve the quality of data to be collected in the future.

- 1) An additional column for the inclusion of actual place of residence of the family at the time of birth of a child should be provided in the administrative records.
- 2) The presentation of statistical tables should be supported by graphics, charts, etc., feasible and/or necessary.
- 3) In order to compare data between two census periods, identical questions should be asked and tabulations published should be uniform. This should not preclude inclusion of new questions to test concepts and definitions.
- 4) More attention should be paid to checking data for accuracy.
- 5) The Census schedule should provide an additional code for vocational/technical education.
- 6) The media as well as schools should be used to a greater extent to increase the awareness of respondents to the importance of providing accurate information to the census enumerator.
- 7) Researchers should interact with the Department of Census and Statistics so that the results of their studies could be made available to the DCS for their guidance in questionnaire design.
- 8) The Department of Census and Statistics should undertake mini-surveys to cover areas which cannot be incorporated in the decennial census such as Free Trade Zone worker, domestic servants, home-based women workers, single-parents, night shift workers and the like.

- 9) Information relating to data which have been collected by the Department of Census and Statistics but not tabulated and printed, should be listed at the back of the DCS publications so that users who have need of such information could request for them.
- 10) The Women's Bureau should examine the gender-specific unpublished data available with DCS and publish a booklet containing relevant tables.
- 11) The DCS should issue census data tapes at a reasonable cost to user agencies upon request.
- 12) As far as possible, the DCS should make census data available at divisional and sub-divisional levels.
- 13) Recognizing the role of the Department of Census and Statistics in providing the national data base for policies and programmes the Women's Bureau should have a "cell" in the Department of Census and Statistics for greater coordination of programmes of data collection relating to women.
- 14) The Women's Bureau should collaborate with statistical officers of the DCS at the district level for the proper collection of gender-specific data and maintenance of records at district and AGA levels.
- 15) The Women's Bureau should sensitize all organizations involved in women's issues to utilize all available gender-specific data and indicators in the design and implementation of their programmes.
- 16) The Sri Lanka Women's Bureau should be the central agency to disseminate data pertaining to women.
- 17) DCS should strengthen its data processing capability to ensure a more rapid processing and tabulation of results for early publication. The machine editing of the census schedules should be carefully done to prevent the loss of important information which may be erroneously coded.

ANNEX I

OVERVIEW OF AVAILABLE DATA SOURCES

A.G.W. Nanayakkara
and
Suranjana Vidyaratne

I. INTRODUCTION

The Department of Census and Statistics (DCS) of Sri Lanka, since its inception in 1947, has been responsible for the collection, processing, analysis and supply of data required for national planning and policy formulation of the Government as well as that required for monitoring progress in the implementation of such policies. It also transmits data on the socio-economic conditions of the country to international organisations on a regular basis and supplies data to various researchers.

Data can be collected through censuses and sample surveys. Three censuses namely Census of Population and Housing, Census of Agriculture and Census of Industries are carried out by the DCS at ten years intervals. A population and housing census is part of the fundamental statistical base of a country. It provides an inventory of the nations human resources in great geographical and demographic detail. However, censuses cannot be repeated frequently, and the information can become outdated. Household sample surveys provide a basis for updating census information. Censuses are also poor mechanisms for gathering data in complex fields requiring extensive interviewing, such as health nutrition or household income and expenditures. It is frequently necessary to turn to sample household surveys to obtain information of these kinds.

Another potential data source is administrative records, and these should be considered from the standpoints of costs and accuracy, for some data when they are available. However, these sources are often limited in content and their use restricted for legal or administrative reasons.

Recognising the needs of conducting household sample surveys the DCS has conducted a series of household surveys too, under the National Household Survey Programme of Sri Lanka. In addition to these, the Central Bank of Sri Lanka has conducted a series of Consumer Finance Surveys since 1953. A few other organisations too conduct small scale surveys or macro studies on ad-hoc basis whenever the necessity arises.

II. SOURCES OF DATA

A. Censuses

1. Censuses of Population and Housing¹

(a) History of population census in Sri Lanka

In Sri Lanka, the first known census enumeration was carried out in 1789 during the Dutch period. This census was confined to the inhabitants of the maritime territory of the Dutch East India Company in Sri Lanka (then known as Ceylon). The count gave the total number of inhabitants of both sexes and all ages as 817,000. The population of the entire country was estimated to be 1.5 million.

A census of the maritime provinces seems to have been taken by the British in 1814 and a census of the Kandyan provinces in 1821.

The earliest enumeration, of which there is any record, was made in 1824, but the results were published three years later in 1827. It gave the population by sex, distinguishing those above the age of puberty from those under that age. The total population was shown as 851,940.

The first legislative provision for a census was made in 1869. The Governor, with the advice of the Executive council was empowered from time to time, as he may deem necessary, to cause an enumeration to be made of the inhabitants of the island, or any portion thereof, and to make the necessary arrangements. The first census under this legislative provision was taken on 26 March 1871, and was unique in more than one way. It was the first census which came within the modern meaning and scope of the "census" and was to be the first of a series of decennial censuses that followed.

The next two censuses, those of 1881 and 1891, were taken under the provisions of the Census Ordinance No. 9 of 1880 which replaced the Ordinance of 1868.

The Census Ordinance of 1880 was considered to be defective in that it did not give census officers powers which were deemed to be necessary. Hence a new ordinance was passed by the Legislature in 1900. The censuses of 1901, 1911 and 1921 were taken under the provisions of the 1900 Ordinance.

¹Extracted from POPULATION CENSUSES IN SRI LANKA - Peiris W.A.A.S.

In view of the financial stringency prevailing at that time and the decision to curtail expenditure, the census of 1931 was limited to a detailed enumeration in the City of Colombo only, while in the estates, particulars in regard to total population, sex and race were obtained from the superintendents of estates. In the rest of the island, only a head count of the total population was made. The census due in 1941 was not taken until 1946 on account of the Second World War. The subsequent Censuses were taken at somewhat irregular intervals in 1953, 1963 and 1971.

Even though the Census Ordinance did not specify the years in, or the intervals at, which the censuses should be taken, the censuses were in fact carried out at regular decennial intervals until 1931. Although plans were made to carry out a census in 1951, this census had to be postponed to 1953 on account of a shortage of paper. The next census followed in 1963. Then again a census was taken in 1971, in order to restore the earlier tradition of taking the census in the years ending in 1 and with the expectation of maintaining the decennial interval in future. This is also in accordance with the United Nations recommendations that the censuses be taken in the year ending 0 or 1. The last census was in 1981 and the next scheduled to be taken in 1991.

(b) Items included in the census schedules

(i) Population Census

The various items on which information was obtained at each census from 1871 are summarized in Table 1. It will be observed that particulars relating to name, age, sex, principal occupation, religion and ethnicity (race or nationality) was collected regularly in all the censuses. In the 1963, 1971 and 1981 censuses, the date of birth was recorded in addition to age with a view to obtaining more reliable age data.

TABLE 1: TOPICS INCLUDED IN THE POPULATION SCHEDULE AT THE CENSUSES IN SRI LANKA

Topics included in the Population Schedule	1871	1881	1891	1901	1911	1921	1931*	1946	1953	1963	1971	1981
Demographic and Personal Characteristics												
Name	x	x	x	x	x	x	x	x	x	x	x	x
Relationship to head of family or household	x	x	x	-	-	-	-	x	x	x	x	x
Sex	x	x	x	x	x	x	x	x	x	x	x	x
Date of birth	-	-	-	-	-	-	-	-	-	x	x	x
Age	x	x	x	x	x	x	x	x	x	x	x	x
Marital status	x	-	-	x	x	x	x	x	x	x	x	x
Ethnic group or nationality	x	x	x	x	x	x	x	x	x	x	x	x
Religion	x	x	x	x	x	x	x	x	x	x	x	x
Citizenship	-	-	-	-	-	-	-	-	x	x	x	x
Educational Characteristics												
Ability to speak Sinhala or Tamil	-	-	-	-	-	-	-	x	x	x	-	-
Ability to speak English	-	-	-	-	x	x	x	x	x	x	-	-
Literacy	-	x	x	x	x	x	x	x	x	x	x	x
Literacy in English	-	-	-	x	x	x	x	x	x	x	-	x
Educational attainment	-	-	-	-	-	-	-	-	xs	x	x	x
School attendance	-	-	-	-	-	-	-	-	-	-	x	x
Economic Characteristics												
Type of activity	-	-	-	-	-	-	-	-	-	x	x	x
Principal occupation	x	x	x	x	x	x	x	x	x	x	x	x
Subsidiary occupation	-	-	-	x	x	x	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	x	x	x	x	x
Employment status	-	-	-	-	-	-	-	x	x	x	x	x
Salary or wages (income)	-	-	-	-	-	-	-	x	xs	-	-	-
Dependency (means of sub- sistence of earner on whom dependent)	-	-	-	x	x	x	x	x	x	-	-	-
Period for which unemployed	-	-	-	-	-	-	-	-	xs	-	x	x

Table 1...

Topics included in the Population Schedule	1871	1881	1891	1901	1911	1921	1931*	1946	1953	1963	1971	1981
Migration and Residence Information												
Place of birth	x	-	x	x	x	x	x	x	x	x	xs	xs
Place of usual residence	-	-	-	-	-	-	-	-	-	-	xs	xs
Duration of stay at usual residence	-	-	-	-	-	-	-	-	-	-	xs	xs
Place of previous residence	-	-	-	-	-	-	-	-	-	-	xs	xs
Length of residence in Sri Lanka	-	-	-	-	-	-	-	x	x	-	-	-
Nuptiality and Fertility												
Dates of marriage	-	-	-	-	-	-	-	x	xs	-	-	-
If previously married, date of first marriage	-	-	-	-	-	-	-	x	xs	-	-	-
Age at first marriage	-	-	-	-	-	-	-	-	-	-	xs	-
Duration of first marriage	-	-	-	-	-	-	-	-	-	-	xs	-
If married more than once duration subsequent marriages	-	-	-	-	-	-	-	-	-	-	xs	-
Age at birth of first child	-	-	-	-	-	-	-	x	xs	-	-	-
Number of children ever born	-	-	-	-	-	-	-	x	xs	-	xs	-
Number of children living	-	-	-	-	-	-	-	-	-	-	xs	-
Date of last live birth within last five years	-	-	-	-	-	-	-	-	-	-	xs	-
Other Topics												
Infirmity	x	x	x	x	x	x	-	x	x	x	-	x
Orphanhood	-	-	-	-	-	-	-	x	x	-	-	-

Notes: x denotes that the information was collected from all persons.
 xs denotes that the information was collected from a sample only.
 - denotes that the information was not collected.
 * Obtained from all persons within the Colombo Municipality only.

Information on the relationship to the head of the household was not obtained at any censuses conducted from 1901 to 1931. Since these particulars are collected for purposes of checking the consistency of the information and not for the preparation of statistical tables, their omission does not affect the content of the tabulated data. Marital status (or conjugal condition) was included in the 1871 census schedule but was omitted from the schedules of the 1881 and 1891 censuses because there was considerable uncertainty at that time as to what constituted a legal marriage in the country. The information on conjugal condition was considered so unreliable that no tables were prepared from it. However, because the Supreme Court of the Island and the Privy Council ruling that "cohabitation and repute raise a sufficient presumption of the marriage relation", the item was reintroduced at the 1901 census and has remained on the schedules of all subsequent censuses.

The term "nationality" as used in the earlier censuses referred to ethnic group (or race as it was then applied to) of the native population and country of origin of the persons of foreign origin. At the census of 1901, a note was added to the heading of the column for nationality requiring that Low-country Sinhalese be distinguished from Kandyan or Highland Sinhalese. This distinction has continued up to this date. A similar distinction between Sri-Lankan Tamils and Indian Tamils and between Sri Lankan Moors and Indian Moors was introduced in the 1911 census and still continues.

Information on literacy in any language was obtained for the first time in the 1881 census and has continued to be collected in all subsequent censuses. Additional information on literacy in English was obtained from 1901 onwards but this item was omitted from the 1971 census schedule. Information on ability to speak English was collected at all censuses from 1921 to 1963, and information on ability to speak Sinhalese or Tamil from 1946 to 1963; both these items were also omitted in 1971. "Educational attainment" was an item introduced for the first time in 1953 while "School attendance" was added to the schedule in 1971.

Information on principal occupation has been collected at every census, but the question on subsidiary occupation was introduced only in 1901. It continued to be included in the schedules of the next two censuses held in 1911 and 1921, but was dropped from 1953 onwards. Information on dependency (i.e. means of subsistence of persons on whom the non-earners were dependent) was also obtained from 1901 onwards until 1953 but was discontinued in 1963 and 1971. The questions relating to industry and employment (or occupational) status were included for the first time in the 1946 census schedule and have been retained in the subsequent censuses.

A question on salary or wages was asked in the 1946 and 1953 censuses only. This item has been omitted from subsequent censuses in view of the difficulty of obtaining or estimating the income of self employed persons in agriculture.

With a view to distinguishing between the economically active population and the inactive population, a question on type of activity was included in the 1963 census schedule. But this information was obtained indirectly at the 1953 census by requiring that for dependants the principal occupation of the person on whom he depends should be stated under the column headed "Principal occupation" together with the letter S for student, H for housewife, U for unemployed and R for retired.

While the place of birth was asked in all the censuses with the exception of the 1881 census, questions on place of usual residence, duration of stay at usual residence, and place of previous residence were introduced in 1971 census, but only on a sample basis. The length of residence in the country was asked only in 1946 and 1953.

Questions on nuptiality and fertility were included for the first time in the 1946 census schedules. In 1953 information on fertility was collected from a sample of the population while in 1963, questions on fertility did not find a place in the census schedules. In regard to marriage, the data of marriage was asked for in 1946 and 1953, while age at marriage and duration of marriage were asked for in 1971. The age of a woman at birth of the first child which was asked in 1946 and 1953, was however omitted in 1971 as well as in the 1981. Questions on number of children living and date of last birth within the past five years were introduced.

Information on infirmities, that is whether a person was blind, deaf, deaf-mute or crippled has been obtained in all the censuses from 1871 with the exception of the 1931 and 1971 censuses.

The list of topics on which information was collected in the Census of population 1981 is given below:

Demographic Characteristics

1. Name
2. Relationship to head of household
3. Sex
4. Religion
5. Ethnic Group
6. Citizenship
7. Physical infirmity, if any
8. Date of birth and age
9. Marital status
10. Attendance at school
11. Educational attainment
12. Literacy
13. Principal activity during last 30 days
14. Did he/she seek work during the past 30 days
15. Period of search for work
16. Reason for not seeking work
17. Principal occupation
18. Kind of industry
19. Employment status
20. Distance from usual residence to place of work or school
21. Principal mode of travel to place of work or school
22. Place of birth
23. Place of usual residence
24. Period of stay in the town or village of usual residence
25. District of previous residence.

(ii) Housing Census

Information on housing was not collected in the earlier census, except in 1871 and 1881 when information on the kind of building and number of rooms was obtained. However, this information was not tabulated. The 1946 population census schedule included a few questions on material of wall and roof, number of rooms, tenure and occupancy of the dwellings occupied by each household. A separate household schedule was introduced at the 1953 census to obtain information on housing and this schedule contained questions relating to rent and length of residence in the present dwelling in addition to the information asked for in 1946.

A housing census proper, introducing the concept of housing unit as recommended by the United Nations and using a separate housing schedule, was taken for the first time in 1963 along with the population census, but then using a 10 percent sample of the housing units, selected on a systematic basis from each urban and rural stratum in each of the 22 districts of Sri Lanka. At the 1971 census, the housing information was obtained in respect of all housing units in urban areas, and of the housing units in only 10 per cent of the census blocks in the rural areas. The items covered in the housing censuses since 1946 are shown in Table 2.

TABLE 2: INFORMATION ON HOUSING OBTAINED AT THE CENSUSES IN SRI LANKA

	1946	1953 ^a	1963 ^b	1971	1981
Whether housing unit or other	-	-		x	x
Whether used for residence only or for business too	-	-	x	x	-
Whether occupied or vacant		-		x	x
Type of structure (house, flat, etc)		-	-	x	x
Material of walls	x	x	x	x	x
Material of roofs	x	x	x	x	x
Material of floor	-	-	x	x	x
Year of construction	-	-	-	x	x
Water supply	-	-	x	x	x
Bathing facilities	-	-	-	x	-
Toilet facilities	-	-	x	x	x
Type of lighting	-	-	x ^c	x	x
Number of rooms	x	x	x	x	x
Floor space	-	-	x	x	-
Availability of kitchen	-	-	x	x	-
Fuel used for cooking	-	-	x	-	x
Tenure (whether rented or owned)	x	x	x	x	x
If owned, and mortgaged, race of mortgagee	x	-	-	-	-
Rent	-	x	x	x	-
Number of families in household - occupying unit	-	x	x	x	-
Number of persons in household - occupying unit	x	x	x	x	x
Length of residence in present dwelling	-	x	-	-	-

Note: ^a At the 1953 census the enumeration was done on a "household schedule" in which the particulars were obtained regarding the dwelling or portion of a dwelling occupied by the household.

^b The enumeration covered only private housing units, i.e., excluding institutions, boarding houses, hotels, etc.

^c In 1963 the question was "Is the housing unit provided with electricity?"

Information on Housing collected in 1981

1. Description of the Units, whether housing unit or living quarters other than housing unit
2. Type of structure: whether single house, flat/annex etc.
3. Number of households
4. Number of usual occupants
5. Year of completion
6. Principal materials of construction of (a) walls (b) roof (c) floor
7. Number of rooms
8. Main source of drinking water
9. Toilet facilities
10. Type of lighting
11. Fuel used for cooking
12. Tenure

(iii) Changes from the 1971 Census

Important changes from the 1971 Census are the introduction of two items on the distance and mode of transport from usual residence to place of work in the case of employed persons and school in the case of students. These have been introduced in response to requests for such information for use in the planning of better transport services.

Under literacy, in the 1981 census, questions were included to ascertain which of the three languages viz. Sinhalese, Tamil and English, a person is able to read and write. In the 1971 Census a person was merely recorded as literate or illiterate without mention of the language(s) in which he was literate. This additional information is expected to help in assessing and formulating policy with regard to national integration. In view of the importance of English as a medium for acquiring technological knowledge and skills information on literacy in English should also prove useful.

Information on physical infirmity (i.e., total blindness, deafness, dumbness or crippling in arms or legs) was re-introduced in 1981. It has been collected in the 1946, 1953 and 1963 censuses but was dropped in 1971. A special infirmities schedule was used in 1981 to record more details pertaining to the nature of infirmity, cause and age at which infirmity occurred, means of livelihood, etc. This item was re-introduced in response to the need for information on the disabled, specially because 1981 had been declared as the International Year of the Disabled.

An important omission is the set of questions on fertility that were collected in 1971 on a sample basis in 10% of the enumerator's areas. It was decided to omit this topic in view of the fact that the Sri Lanka Fertility Survey of 1976 was expected to provide much more information on fertility than could be obtained in a census. Besides, the

experience of the 1971 Census suggested that questions on fertility need much probing in order to elicit reliable answers. The conditions of a census do not permit such probing even when the questions on fertility are addressed to a sample of the population.

2. Census of Agriculture - 1982

(a) Definition of an Agricultural Census

An agricultural census is defined as a Government - Sponsored Operation for the collection of quantitative information on the agricultural structure, using as a unit of enumeration agricultural holding and covering the whole country within a single agricultural year.

(b) Purpose of an Agricultural Census

The main purposes of the Census of Agriculture are to:

- (i) Describe the agricultural structure and related characteristics of agriculture, by providing statistical data on agricultural holdings, agricultural operators, land utilization, crop acreage, livestock numbers etc.;
- (ii) Provide benchmark for the evaluation of current data, and for measuring the future agricultural development;
- (iii) Establish a statistical frame for current agricultural surveys based on sampling techniques.

(c) Scope of the 1982 Census of Agriculture

While covering the needs for the fulfillment of these objectives and purposes of the census, the scope and content of the census is subject to limitations imposed by several considerations such as the availability of funds and resources for organising the census, enumeration; supervision, processing and tabulation; and the need to avoid complex and burdensome questions which may produce considerable resistance between the respondent and the interviewer.

A list of subjects covered and brief description of census items canvassed are indicated below.

- (i) Agricultural holdings and their principal characteristics: The agricultural holdings are primarily divided into small holdings and estates. The important characteristics would be the location, size, tenure, ownership, number of parcels in the holding, and type/of holding.

Agricultural Operator: The agricultural operator will be the person or persons who have the responsibility of operating the holding. The following is the relevant information proposed for collection:

1. Name
2. Age
3. Education
4. Occupation (Agricultural and Non-Agricultural)
5. Address of the holder, if not residing on the holding
6. Legal status of the operator.

Land Utilization: Land Utilization of land within the holding.

1. Arable Land; (a) area under temporary crops, (b) area under home gardens
2. Land under permanent crops
3. Land under pastures
4. Woods and forests
5. Land under roads and buildings, rivers, streams, Tanks, etc.
6. All other land

Crops: As this is covered mainly by a sample survey, only selected items of information about the crops that could be published with a reasonable level of accuracy, will be collected.

Livestock and Poultry: comprise

1. Number of meat cattle
2. Number of buffaloes
3. Number of goats and sheep
4. Number of pigs
5. Poultry
6. Number of bee hives

Details such as meat cattle and buffaloes by sex, age, and use will be canvassed on a sample basis.

The possibility of using a separate sample for livestock and poultry, an area where reliable information is limited will be examined carefully.

Employment in Agriculture: Information about employment in agriculture is very difficult to obtain as many crops are grown

seasonally and the capacity for agricultural employment varies during the year. There is no proper record keeping, specially in small holdings, and the memory biases could be considerable. The possibility of obtaining reasonably reliable information at the census will be investigated.

- (vii) Farm Population: The population of a farm, per unit or per acre, is important information, and may be published by sectors, such as estate sector and small holding sector. The farm population represents, all those who live in the estate or small holding. Agricultural labourers who do not live on the holding would not be counted.

1. Estate sector - members of the staff, labourers and others who live on the estate.
2. Small holding sector - members of operator's household, and labourers and other who live on the holding.

- (viii) Agricultural Machinery and Transport Facilities

Proposed Census Items

1. Whether any agricultural work is done by machinery
2. Whether animal power is used
3. Method of transport of produce to the first point of sale

A count of machinery by type will not be feasible, this question will be canvassed only on a sample basis but the use of machinery on the holding by type could be estimated with reasonable accuracy.

The possibility of obtaining a count of all important agriculture machinery by complete enumeration will be examined.

- (ix) Fertilizer and Soil dressing: The possibility of collecting information on a sample basis about the application of fertilizer and soil dressing will be carefully examined. Again as the application of these inputs are seasonal, the problems of obtaining reliable information, at a particular point of time will have to be studied.

- (d) List of Statistical Tables

A list of statistical tables published is given below.

SMALL HOLDING SECTOR

TABLE

1	Agricultural Operations Classified by Age Groups and Sex
2	Agricultural Operators Classified by Educational Attainment
3A	Number of Operators and Area Owned by the Type of Ownership of Land
3B	Distribution of Operators and Area Owned by the Type of Ownership of Land
4A	Number and Area of Operational Holdings by Operational Status of Operators
4B	Distribution of Operational Holdings by Size Class of the Holdings and Operational Status of Operators
5A	Number of Operational Holdings by Type
5B	Distribution of Operational Holdings by the Type
6A	Number of Holdings and Operated Area under different Categories
6B	Distribution of Holdings and Operated Area under different Categories
7	Number of Paddy Holdings by Size of Paddy unit
8A	Number of Operational Holdings having only Home Gardens, only Highland and only Paddy and Respective Areas
8B	Distribution of Operational Holdings having only Home Gardens, only Highland and Paddy and respective Areas
9	Number and Area of Paddy Holdings by the Type of Ownership of Paddy Lands
10A	Number of Cattle by Type, Age and Sex
10B	Distribution of Cattle by Type, Age and Sex
10C	Number of Cattle of Age 3 Years and Over by Type, Purpose and Sex
10D	Distribution of Cattle of Age 3 Years and over by Type, Purpose and Sex
11A	Number of Buffaloes by Type, Age and Sex
11B	Distribution of Buffaloes by Type, Age and Sex
11C	Number of Buffaloes of Age 3 Years and over by Type, Purpose and Sex
11D	Distribution of Number of Buffaloes of Age 3 Years and over by Type, Purpose and Sex
12A	Number of Agricultural Holdings Reporting Cattle, Buffaloes and Area of Such Holdings and Number of Livestock
12B	Number of Agricultural Holdings Reporting Cattle, Buffaloes and Area of such Holdings and Number of Livestock
13A	Number of Goats and Pigs by Age Groups
13B	Distribution of Goats and Pigs by Age Groups
14A	Number of Poultry by Type
14B	Distribution of Poultry by Type
15A	Number of Agricultural Holdings Reporting Tea by District - Small Holding Sector
15B	Distribution of Agricultural Holdings Reporting Tea - Sri Lanka and District - Small Holding Sector

- 16A Number and Area of Agricultural Holdings Reporting Rubber by District - Small Holding Sector
- 16B Distribution of Agricultural Holdings Reporting Rubber - Sri Lanka and by District - Small Holding Sector
- 17A Number of Agricultural Holdings Reporting Coconut by Districts - Small Holding Sector
- 17B Distribution of Agricultural Holdings Reporting Coconut Sri Lanka and by Districts - Small Holding Sector

STATISTICAL TABLES BASED ON SAMPLE ESTIMATES
SMALL HOLDING SECTOR

- 18 Number of Agricultural Households and their Population by Age Group and Sex
- 19 Number of Agricultural Households and Area Operated by different size classes of the holdings according to Household size
- 20 Number of Part-time Agricultural Operators and Area Operated
- 21 Number of Operators who have occupations other than Agricultural by Occupational Categories
- 22A Number and Area of Holdings according to the Volume of Work done by Household Members - by District
- 22B Number and Area of Holdings according to the volume of work done by household members - by size of the Holding
- 23A Number and Area of Holdings by Type of Holdings
- 23B Number and Area of Holdings producing mainly for sale by type of holdings and by district
- 24 Number of Operational Holdings by size of the Holding and by Number of parcels and by District
- 25 Number of Holdings Reporting Asweddumized Paddy by Size and Number of Parcels and by District
- 26A Number and Area of Parcels reporting different type of Tenure by District
- 26B Distribution of Parcels reporting different type of Tenure by Size Class of the Holdings
- 27A Land Utilization within Agricultural Holdings by Districts
- 27B Land Utilization within Agricultural Holding by Size of the Holdings

ESTATE SECTOR

- 28 Number of Estate Operators Classified by Age Group and Sex
- 29 Number of Estate Operators Classified by Educational Attainment
- 30 Number of Operators and Area Operated by Operational Status
- 31 Number and Area of Estates by Type of Management
- 32 Land Utilization of Estates
- 33 Area under Tea according to Type of Tea Propagation
- 34 Area under Rubber by type of Rubber and Age

- 35 Area under Coconut by Age
- 36 Area under permanent Crops (Other than Tea, Rubber and Coconut)
and Temporary Crops
- 37 Number of Cattle by Type, Age and Uses
- 38 Number of Buffaloes by Type, Age and Uses
- 39 Number of Goats, Sheep, Pigs and Poultry
- 40 Number of Agricultural Implements and Machinery Owned by Estates

SMALL HOLDINGS AND ESTATE SECTOR

- 41 Number of Operators Classified by Age Group and Sex by Districts
- 42 Agricultural Operators Classified by Educational Attainment
- 43 Land Utilization within Agricultural Holdings
- 44 Number of Cattle by Type, Age and Uses by Districts
- 45 Number of Buffaloes by Type, Age and Uses by Districts
- 46 Livestock and Poultry by District

(e) Census Methodology

In principle, the agricultural census adopt, the method of complete enumeration from all holdings for collection of data. The complete enumeration method is used so that information at lower levels of administration (by district/A.G.A. Division) can be tabulated and published, since this is now considered essential for regional planning, especially at a time when decentralized budgeting and plan implementation at District level, is taking place.

However any attempt at collecting information on all or most of the items through complete enumeration would overload the census questionnaire, which will in turn adversely affect the quality of the data and delay the processing and tabulation work.

In view of these factors and with the experience of past censuses, census 1982 was a combination of both complete enumeration and sample survey. All agricultural holdings were divided into two main groups, namely large holdings or estates and small holdings. The large holdings are small in number but contribute heavily to the agricultural production, whereas small holdings are large in number with a relative low contribution. The large holdings will be completely covered for all the questionnaires whereas small holdings will be fully enumerated for only the most essential number of items, and a carefully selected representative sample will be used for detailed enumeration.

The complete enumeration of special lands and livestock holdings such as large government and private farms, which do not come under estates was undertaken. A list of such farms and estates was prepared at the planning stage.

B. Sample Surveys

A number of all Island Household Surveys has been carried out by the Department of Census and Statistics (DCS) since 1980, under the National Household Survey Programme of Sri Lanka. Before 1980 the DCS did not have a regular survey programme and most of the surveys were conducted on an ad-hoc basis. The Socio-Economic Survey 1969-70 was one such ad-hoc survey conducted by the DCS. This survey is considered to be one of the best surveys conducted in Sri Lanka, before the commencement of the National Household Survey Programme. This section deals with the household surveys carried out by the DCS since 1980. In all these surveys most of the tabulations where relevant, have been or will be classified by sex. As such it is possible to use the results of these surveys to study the socio-economic situation of women in Sri Lanka.

1. Labour Force and Socio-Economic Survey 1980/81

This was the first in the series of surveys conducted by the DCS under the National Household Survey Programme. The main objective of this survey was to obtain current information on the labour force, the extent of unemployment, etc., which are needed for policy formulation and planning purposes. Additional information on demographic characteristics of the population, household income and expenditure, housing and access to amenities was also collected in this survey.

The following are the five schedules used in this survey

- Schedule 1 - General Household Schedule
- Schedule 2 - Labour Force Schedule
- Schedule 3 - Income Schedule
- Schedule 4 - Expenditure Schedule
- Schedule 5 - Housing and Access to Amenities Schedule

The schedules 1, 2 and 3 were canvassed in all the four rounds, while the schedules 4 and 5 were canvassed only in the last two rounds.

Schedule 1 contains identification information of the household and the General Demographic Characteristics such as sex, age, relationship to the head of the household, marital status, level of education, literacy of each of the member of the household.

Schedule 2 contains the activity status and information pertaining to the employment in the case of employed people and unemployment characteristics of the unemployed people and also information on economically inactive persons.

Schedule 3 which contains the income particulars, gives monetary income as well as non-monetary income of the household. This also gives particulars on land ownership.

Schedule 4 contains the household expenditure on consumer goods and services under the major groups, "Food and Drink", "Liquor and Tobacco", "Housing", "Fuel and Light", "Clothing", "Non-Durables and Semi-Durables", "Personal Care and Health", "Transport and Communication", "Recreation, Education and Cultural Activities" and "Consumer Durables".

Schedule 5 contains information on housing conditions and access to amenities.

The survey covered all the districts in Sri Lanka and all three sectors namely urban, rural and estate within each district. Since this was a household survey, living quarters other than housing units, such as hotels, hospitals and barracks were excluded from the survey. The survey was conducted in four consecutive rounds during the period from May 1980 to April 1981 and spread over one year in order to eliminate seasonal variations. About 10,000 housing units were covered in this survey.

Collection of data on a wide variety of subjects in this survey has the advantage of relating the data on demographic characteristics, labour force characteristics, housing conditions and other related topics with the data on income and expenditure. This is specially important because it provides linkages between household income and expenditure with related characteristics of household living conditions and also an income/employment relationship.

Two reference periods viz 'last week' and 'last year' were used in the collection of 'labour force' data in this survey. The one week period is intended for measuring the current activity status and current employment characteristics of the population. Movements of persons and changes of activities are usually insignificant during brief time periods and, therefore, the resulting data are considered to reflect a precise picture of current employment conditions. The short reference period will also minimize the effects of errors due to memory lapse.

The one year reference period is intended to collect data on the usual activity status and employment characteristics of the population. A long reference period usually provides information on economic activity of utmost consequence to each person. One year encompasses an entire agricultural and climatic cycles, and therefore, the use of the year reference period would precisely classify a former employee in agriculture even if he had been engaged in non-agricultural activities or seeking work elsewhere in the off season. A one year reference period is also most suitable for collection of data on income and other data relating to employment characteristics.

The household income in this survey includes monetary income as well as non-monetary income or in-kind income of the household. The monetary income was recorded for each individual income recipient while the non-monetary income was recorded only for the entire household.

The monetary income includes employee's salaries, wages and other related receipts from employment, income from agricultural activities, profit from businesses, rents, dividends, interest, etc., pensions, remittances and cash allowances received from outside household and other periodic cash receipts. The income particulars obtained under these sources constituted the average monthly incomes of the household.

The "Wages, Salaries and Related Receipts from Employment" includes the gross earnings from paid employment, either on a fixed, temporary, casual or contract basis. All allowances (other than those in the form of reimbursement of expenditures), overtime payments, bonus receipts etc., were also included under this source of income. The "Income from Agricultural Activities" recorded against the individuals receiving such income is the gross income received from the sale of agricultural produce. The net household income from this source was computed by taking into account the proportion of sales over the total agricultural production and the value of inputs. This amount was then allocated to the head of the household. The income recorded under "Profit from Businesses" is the net income from any business (excluding money income from home grown produce). The income recorded under Rents, Dividends, Interests etc., is the net monthly income. Expenditure on rates, repairs etc., was deducted from gross rental income to obtain the net income from rents. The average monthly dividends and interest were calculated on the basis of the annual dividends and annual interest. Pensions and other regular cash allowances, the value of the "food Stamps" etc., received from the government, other regular cash receipts from private institutions or friends and relatives, remittances received from abroad were recorded under "Pensions, Remittances and Cash Allowances, received from outside household". All money income received by household members other than those sources mentioned earlier was recorded under "Other Periodic Cash Receipts".

The non-monetary income of the household or the household income in kind includes three main categories.

- (a) The goods and services provided free by the employer or received free from other sources: This includes food, clothing, housing, medical facilities, etc. Food, clothing etc., provided free of charge were valued at prevailing market prices; the gross rental value of rent-free housing, was recorded under housing; and the estimated cost of free medical facilities provided by the employer was recorded under medical facilities. However the services rendered by public authorities which are free to everyone in the community, such as free education, free medical care etc., are not considered as household income in kind, even though these contribute to the consumption and level of living of the household.
- (b) The estimated net rental value of owner-occupied housing unit;

- (c) The value of home produce consumed within the household: The quantity and value of all the goods produced, sold, consumed and retained during the preceeding year were recorded. The items covered under this section are paddy, other cereals, coconut, vegetables and fruits, eggs, milk, fish, other food items, fire-wood and other household goods. The value of these items was estimated on the basis of the prevailing market prices.

Detailed data on the household's consumption expenditure of food items as well as expenditure on non-food items were collected in this survey. This included not only the money expenditure incurred but also the imputed value of goods and services consumed without incurring money payment.

Household consumption expenditure were collected under thirteen major expenditure groups, which are listed below.

<u>Expenditure Group</u>	<u>Reference Period</u>
(1) Food and Drink	One week
(2) Liquor and Tobacco	One week
(3) Housing	Previous month
(4) Fuel and light	Previous month
(5) Clothing and Textiles	Previous six months
(6) Non-durable Household goods	Previous month
(7) Semi-durable Household goods	Previous six months
(8) Household Services	Previous month
(9) Personal Care and Health	Previous month
(10) Transport and Communication	Previous month
(11) Recreation, Entertainment, Education and Cultural activities	Previous month
(12) Miscellaneous	Previous six months
(13) Durable goods	Previous year

Each of these groups were further divided into subgroups and then to individual items, so that the interviewer would not fail to ask the respondent data on a particular item or expenditure. Data on food items were collected separately for each day over a period of seven consecutive days with the investigators making three visits to the household, every other day. Expenditure on non-food items was collected with varying reference periods as indicated above, and except for Liquor and Tobacco which was also collected for seven consecutive days, these were to be collected during any of the three visits to the household. Reference periods for these groups were fixed to give minimum memory lapses on the part of the respondent.

In the case of food, liquor and tobacco the actual consumption on the previous day (quantity and value) was recorded irrespective of the data when the items were purchased. For non-food items, the expenditure incurred during the specified reference period was recorded.

Two reports relating to this survey namely (i) preliminary report and (ii) report on household income and expenditure have already been published. The first gives information on demographic and labour force characteristics of the population based on data collected in the first two rounds. The second gives the information on income and expenditure based on the data collected on the last two rounds. All tabulations in the preliminary report are classified by sex and therefore could be used to study the labour force characteristics of women. A list of tabulations available in the above report is given in Appendix I.

2. Survey of Household Economic Activities - 1984/85

In Sri Lanka like in many other developing countries the formally organized sector of economic activity is limited, though growing and a large part of the economic activity is being carried out by the unorganized household sector. Non-household economic activities, that is, economic activities undertaken by large, medium and to some extent, even small establishments, are usually covered by the censuses or sample surveys of establishments. These establishments are usually required to register with the appropriate government authorities, main statistics of their production, sales, receipts, expenditure and investment. The data required of these establishments for national accounts and planning purposes are collected from them, through periodic censuses or sample surveys.

Household economic activities, on the other hand, are usually unorganized, scattered, numerous and often seasonal in character. As most of the household economic activities are invariably not registered, it is not possible to obtain information on them through the normal administrative records. They generally have no separate identity and their receipts and expenditure are often mixed with the consumption activities of the households. The agricultural censuses carried out periodically provide comprehensive data on the structure of the agricultural economy. However, the data on inputs, costs of cultivation and output are generally not available at the national level. In the case of non-agricultural sector, the usual statistical operations such as industrial census, current statistical enquiries, data collections carried out as a by-product of administrative statistics are generally confined to the establishment sector and that too restricted to large scale establishments. In most cases they cover only certain parts of the non-agricultural sector and several areas of importance remain uncovered. Even where some statistics are collected through these sources they are not comprehensive enough to provide the requisite information on the net

output of each sector. As such small scale enquiries are sometimes carried out to obtain workable ratios and coefficients which could be applied to available aggregative data and estimates of varying quality in preparing the national accounts. In such situations the entire household sector is generally ignored or inadequately covered.

Under these conditions, the data required on household economic activities for national accounts and planning purposes can only be collected directly from households through a sample survey.

The major activity of the informal household sector in Sri Lanka is agriculture. This includes "seasonal agricultural activities", "activities related to non-seasonal crops", "livestock and poultry farming", "fishing and fish breeding" and "forestry and hunting". In the case of non-agricultural sector, many activities such as processing of agricultural commodities, manufacture of products based on locally available materials, handicrafts, mining and quarrying, repair services, professional, personal and community services, etc. are also being carried out on household basis both in rural areas as well as in the urban areas. As such it is seen that in Sri Lanka, there is a substantial contribution from such activities to the national economy.

Statistics relating to household economic activities are required mainly for the estimation of national accounts, for development planning and policy making and for the promotion of self-employment activities. The requirements of data relating to household economic activities for national accounts and planning are largely the same as those relating to non-household economic activities. However, in view of the unorganized nature of the former and the difficulties of obtaining the data with accuracy, it is necessary in practice to restrict collection to the important items, leaving out or grouping together some of the details. For national account purposes, the important items of requirements would relate to:

- (i) Employment and duration of work;
- (ii) Employee compensation;
- (iii) Quantity and value of production;
- (iv) Value of raw materials used;
- (v) Other costs of production;
- (vi) Investment and source of finance of investment.

Detailed information on the above would enable compilation of estimates of gross output, intermediate consumption, employee compensation, operating surplus, indirect taxes, consumption of fixed capital and capital formation. Additional details of utilization or disposal of output and origin of input will be required for compilation of input-output tables. For flow of funds studies, details of borrowings, lendings and savings will be required. For planning purposes, additional details, such as source of supply of raw materials, availability of fuel

and power, utilization of output, extent of unutilized capacity, size of agricultural holdings, etc. would be required. Collection of data in such detail is usually very difficult, specially from the unorganized household sector. As such many compromises and/or grouping of items are necessary in actual practice.

There are three areas of deficiency in the national accounts that can be reduced with the help of statistics on household economic activities: (a) the inadequacy of coverage of "own account" production; (b) the calculation of private final consumption expenditures and private saving as residuals; and (c) the lack of a distributional dimension.

The United Nations System of National Accounts (SNA) points out that all production, including subsistence production, should, in principle, be included in gross output, whether for own account consumption, for barter or for sale. Yet there may be a tendency to understate the scope of subsistence activities in the national accounts which means that there could be an omission of a substantial portion of the gross domestic product. In practice, there are two reasons for this omission: (a) because subsistence products and activities are heterogeneous, they are not easy to identify; (b) because they are not exchanged in the market, their valuation is not easy.

Household statistics on saving should provide a basis for making more direct estimates of savings for the national accounts. It may be that the household may not have knowledge of its own saving. However, this can be inferred from the value of the effort put into land clearing, the value of the tools fabricated, the value of the sheds and dwelling units built etc. Such household accumulation will be equal to household savings.

Statistics on household economic activities are also needed for planning the expansion of output, the equitable distribution of this output, and the improvement in levels of welfare of the population or of specific groups in the population. In most of the developing countries the growth rates of labour force are higher than the corresponding growth rates of population. As such these countries may have to face the problem of inadequate growth in paid employment, increasing unemployment and widespread underemployment. Promotion of self-employment has, therefore, often been regarded as a possible solution for the problems posed by the employment situation. Comprehensive information on the nature, pattern and problems of self-employment in household economic activities is essential for the promotion of such activities.

In order to fulfill the requirements of the national accounts statisticians, planners, policy makers, and other data users, the Department of Census and Statistics conducted the survey of Household Economic Activities in 1984/85 under the National Household Survey Capability Programme of the United Nations. This was the first occasion a

survey of this kind was conducted in Sri Lanka and probably the first in the Asian Region. The survey covered all the districts in Sri Lanka; and since district level estimates are required with reasonable accuracy, a sample of approximately 24,000 households carrying out household economic activities both agricultural and non-agricultural on own account basis were covered in this survey, during a period of 12 months from April 1984 to March 1985. The main objective of the survey was to collect data on the structure, organization and operation of such activities, employment (which include both household as well as hired), inputs, output and the net income generated by such activities.

In the case of agricultural sector, the households engaged in agricultural activities with hired labour, but on the basis of household ownership were also covered; in addition to those households engaged in such activities without hired labour. These two categories of households were considered as self-employed farmers' households. In the case of non-agricultural sector the households engaged in economic activities with the help of family members and/or only casual workers on ad-hoc basis were also covered, in addition to those engaged in economic activities on own account basis.

The survey thus covered the following categories of households:

- (i) Households with at least one self-employed farmer without any hired labour (with or without unpaid family workers)
- (ii) Households with at least one self-employed farmer with hired labour (with or without unpaid family workers)
- (iii) Households engaged in non-agricultural activities on own account basis without any hired labour (with or without unpaid family workers)
- (iv) Households engaged in non-agricultural activities with casual workers on ad-hoc basis (with or without unpaid family workers).

As such, the household having at least one member who is self employed in agriculture or engaged in non-agricultural activity on own-account basis, either as a primary or a secondary activity, were considered as eligible households for this survey and a sample of 24,000 such eligible households were covered.

The subjects covered in the survey include the nature of activity, fixed assets, loans taken, hired labour, current purchases and inputs, outputs and sales, etc.

A mainly agricultural household may sometimes be engaged in non-agricultural activities and vice versa. Similarly, each individual may sometimes be engaged in different activities at different times even within a short reference period and assets such as buildings, transport

equipment, other equipments, etc., may sometimes be used in different activities. It is therefore, difficult to obtain data in the requisite detail to account separately for all aspects of each activity. As such, an attempt was made to obtain the information on fixed assets, loans taken, labour utilization, inputs etc., for the entire household without reference to specific activities; but information on output and sales were obtained separately for each activity.

The household schedule used for the survey consists of three sections, in addition to all the identification information of the household and control data compiled on the first page of the schedule. Identification information comprised the District; Electorate; Assistant Government Agents Division; Grama Sevaka Division; name of the local authority, village or estate for the urban, the rural and the estate sectors respectively, and census block number etc., to which the household belongs. The control data, consisted of information on the date of visit to the household, result code, for up to three visits to the household and the time interview was taken. Result code indicates whether the schedule is completed, partly completed, refused, household is changed, house is demolished or not completed due to any other reason. Although these data were primarily to control the flow of the schedules, to see whether a schedule was completed at least up to control data section for each of the selected households, they also enabled the computation of the different non-response rates such as refusal rate, demolished cases etc.

The three main sections of the schedule are the Section 1, which deals with demographic characteristics of the household members and particulars on the economic activities carried out by them, Section 2 which deals with fixed assets, loans taken, hired labour, current purchases and inputs and Section 3 which deals with current operation, output and sales.

Section 1 - Demographic particulars were sought in respect of all the members and the activity particulars in respect of all persons 10 years and above. The basic demographic characteristics such as age, sex, relationship to head of household, race, religion, level of education (for persons 5 years of age and over), marital status (for persons 10 years of age and over) were collected. Activity questions were designed firstly to identify the household members engaged in different activities (seasonal agricultural activities, non-seasonal agricultural activities, and non-agricultural activities) as a self employed farmer or an own account worker. Thereafter the labour input by such household members on each activity was collected. Information was obtained for the last month in respect of all economic activities. In the case of seasonal agricultural activities, information is obtained for the last year as well. Number of persons days worked on each of the specified activities were also collected. If a person worked at least one hour on any particular activity on a day, that day was considered as a day worked under that

activity. As such, if a person was engaged in more than one activity and if he/she worked at least one hour in each of the activities, a day worked was recorded under each of them. The total number of days were therefore not additive.

The "Seasonal Agricultural Activities" are those agricultural activities performed on a seasonal basis such as the cultivation of paddy, chillies, onions, potatoes, etc. These are generally cultivated twice within a period of twelve months and these cultivation seasons are called "Maha" and "Yala". "Last year" refers to last two closest and completed cultivation seasons.

Section 2 - consists of four sub-sections. The sub-section on fixed assets asks for information on the assets acquired and disposed off during the last calendar year, owned as of date and otherwise possessed as of date. The information were recorded only in respect of the fixed assets used for the economic activity. In general, most of the fixed assets are commonly used on different activities, if the household was engaged in more than one economic activity. As such, if the members of the household were engaged in more than one economic activity fixed assets used for all such economic activities were recorded, together, not separated by activity.

This also asked for a breakdown of assets used for agricultural and non-agricultural purposes. This breakdown included both assets owned or otherwise possessed.

The assets included here are land, buildings, machinery, furniture and fixtures, transport equipment and other equipment. All the equipments used to transport the passengers or goods are listed under transport equipment, irrespective of the activity in which they were used. For example, the boats used in fishing activity as well as the boats used to transport the passengers in transport activity were entered as boats under transport equipment.

The loans taken in cash or/and in kind for the economic activity from different sources was collected under the sub-section on "Loans Taken". The loans taken for an economic activity may have been utilized for some other purpose which may not be a household economic activity. In such cases also, the amount used for the economic activity was recorded. On the other hand, loans taken for some other purpose may have been utilized for an economic activity. Loans taken during the last calendar year for agricultural and non-agricultural activities were recorded separately. Additional information such as the amount of loan re-paid during the last calendar year, amount outstanding at the end of the last calendar year, and interest paid during the last calendar year were also collected.

The sub-section on hired labour asks for information in respect of the last year (i.e. last two cultivation seasons Maha-Yala or Yala-Maha),

for seasonal agricultural activities and last calendar month for other agricultural and non-agricultural activities. A distinction was made between regular employees and casual workers. The family members who work for wages/salaries in the household economic activities carried out by the household were categorised as regular employees or casual workers, according to the following definitions: persons employed on a continuous basis on contracts, written or verbal, extending for periods of one month or more at a time were considered regular employees; and those employed occasionally for periods of less than one month at a time were treated as casual workers. The remuneration paid was recorded separately for "in cash" or "in kind". In addition the total value of perquisites provided by the household to the hired workers, such as food, shelter and clothing were recorded separately. All the above information was recorded separately for men, women and children, (those who are under 15 years); under seasonal agricultural activities, non-seasonal agricultural activities, and non-agricultural activities.

Another situation still prevailing specially in the rural areas of the country is the exchange of labour between different households, which is known as "attham". Here for example during the harvesting of paddy land of one household, the members of other households in the village do help them without any payment. The only kind of payment made to them are free meals and drinks etc. Such labour cannot be ignored as its contribution is considerably high, specially in the case of cultivation of paddy; for this reason it was also recorded under this block and the value of the meals, drinks etc. provided were recorded under "value of perquisites provided".

The last sub-section of purchases and inputs sought information on seasonal agricultural activities for the last year (i.e. two cultivation seasons) and the other activities for the last calendar month. All input items used in an economic activity may not necessarily be purchased, but may be received free, as a subsidy from the government or any other institution or may be obtained from the home produce. Such items were valued according to the prevailing local market prices and were included under inputs as purchased.

Inputs were grouped into 16 major groups such as agricultural seeds and seedlings, animal, poultry and fish-feed, explosives, chemicals and chemical products, water, electricity, fuel and lubricants, etc. Each of these were again sub-divided into input items for which the information was sought. In order to have a complete breakdown of input items, about 70 items were listed in the schedule. Value of each input item purchased during the reference period, value of the item used and the main purchasing agency from where it was mainly bought were recorded. Items used during the reference period need not be from the purchases during the same reference period. It can also be from the ones purchased some time back, but used during this reference period. Similarly, items purchased during this reference period need not be used during this period but may be kept for future consumption.

Section 3 - of the household schedule is on "Current Operations, Output and Sales". "Output and Sales" has 11 sub-sections, one dealing with each branch of activity. Information such as output, quantity given away to the landlord, quantity consumed within the household etc., were collected for the reference period.

A list of tables published is given in Appendix II

3. Labour Force and Socio-Economic Survey - 1985/86

The Labour-Force and Socio-Economic Survey 1985/86 (conducted during the period April 1985 to March 1986) is the third survey conducted by this department under National Household Survey Programme. This survey provides comprehensive information on labour force characteristics, income, and expenditure. Additional background information on demographic characteristics of the population was also collected, as such information, is relevant for analysis of the country's situation with respect to the labour force, income and expenditure.

The Labour Force Schedule of this survey was prepared in accordance with the conceptual framework adopted by the thirteenth International Conference of Labour Statisticians (ICLS) held at the ILO, Geneva from 18 to 29 October 1982 and endorsed by International Labour Organization. The schedule provides for an investigation of the usual activity status to start with, and then proceed with an investigation of the current activity and labour time disposition. In order to provide possible linkages with the past Labour Force Survey results, questions were framed in such a way as to provide building blocks for the preparation of estimates comparable with the past and also to suit the requirements of different users. Variations in definitions and approaches can lead to different estimates of employment, unemployment and of other related characteristics. It is not easy to provide a single set of definitions of employment, unemployment, under-employment, etc., which is acceptable to all. Therefore the data was collected in a very flexible manner using a component and disaggregated approach which can provide a hierarchy of statistical measures. As such, if a particular statistical measure is not fully acceptable for certain users, the components could be regrouped to arrive at the desired statistical measure.

In addition to labour force questions some supplementary questions have been included on children (5 to 14 years), youth (15 to 29 years) and women (15 to 49 years) in order to obtain information on matters of special concern in respect of these groups. Important information such as the reasons for not attending school (for the child not attending school), participation in economic activities etc., were collected in respect of children. In the case of youth the type of special training they may have had, information related to their employment if they are employed, whether they are satisfied with their present employment, etc. were collected in order to identify the abilities of the potential labour force, problems of

employment if they are employed, etc. Such information will be very useful to the planners as well as policy makers, in creating suitable employment opportunities, in such way to make use of their talent and capabilities efficiently to improve the national economy. Women's participation in quasi-economic activities, time spent on such activities, child care practices of employed women, were collected in respect of women aged 15 to 49 years. As women's participation in the household work and related activities has never been measured before, the survey provides valuable information on women's contribution to such activities. The information on child care practices of working women will give an insight to the problem they are faced with in making suitable arrangements for caring for their children when away from home.

Food consumption data would be an important component of the data base for agriculture, nutrition and health planning, public administration and for food market research. As the human needs for food are more easily estimated than other basic needs the survey data could be used to measure the incidence of poverty and the dietary adequacy among various income groups.

The following are the major components on which the household expenditures were collected.

- (1) Food, drink and tobacco
- (2) Housing
- (3) Fuel and light
- (4) Clothing and textiles, etc.
- (5) Non-durable household goods
- (6) Household services
- (7) Personal care and health expenses
- (8) Transport and communication
- (9) Recreation, entertainment, education and cultural activities
- (10) Miscellaneous consumption expenditure
- (11) Consumer durables
- (12) Non-consumption expenditure

The expenditure on food, drink and tobacco were collected over seven consecutive days, visiting the household three times during a week.

The household expenditure is estimated as the sum of estimated monthly expenditures on various item groups. It is broadly categorized as consumption expenditure and non-consumption expenditure. The consumption expenditure includes all cash expenditures on goods and services consumed or intended for consumption, the value of goods and services received in kind, and consumed, the value of home grown and home-produced goods for consumption, the value of goods withdrawn from own enterprises for consumption, the gross rental value of free housing accommodation occupied and the net rental value of owner-occupied housing. Sales taxes, entertainment taxes, license fees, registration fees, etc. paid in connection with the purchase or use of goods and services are also

included as consumption expenditure. Non-consumption expenditure includes income tax and other direct taxes, provident fund contributions, contributions to welfare funds, benevolent funds, thrift societies etc., insurance premiums, trade union and professional contributions, current remittances, gifts and similar transfers. Information on non-consumption expenditure was collected in respect of the last 12 months.

The data on indebtedness, other receipts and disbursements was also collected separately, in respect of last year. Other receipts include (i) withdrawal from savings and bank deposits, (ii) sale of assets (i.e., land, house, jewelry), (iii) sale of possessions, e.g., consumer durables and semi durables), (iv) ad-hoc gifts, grants and donations received, (v) insurance, provident fund and gratuity payments received, (vi) compensations for accidents and damages, (vii) lottery and other ad-hoc gains, (viii) inheritance and (ix) others which includes repayment given. The disbursements include (i) additions to savings and deposits, (ii) purchase of assets excluding consumer durables, (iii) loans given to others (iv) ad-hoc gifts, grants and donations given, (v) other, including repayment of loans taken.

The simultaneous collections of data on demographic characteristics, labour force characteristics, income and expenditure has the advantage of providing linkages between household income, household expenditure and other related characteristics. For example household income/expenditure could be linked with employment/level of education of the head of the household. Unemployment and under-employment could be linked with the levels of living of the household etc.

This survey covered all the districts in Sri Lanka and it has been designed to give estimates at district level. Estimates will also be provided for sectors namely urban, rural and estate at all island level. A representative sample of 25,000 households was selected for the survey by adopting a two-stage sample design. The primary sampling units (PSUs) were the census blocks and the secondary sampling units (SSUs) were the housing units. The allocation PSUs to each strata was designed to produce estimates of acceptable reliability. PSUs were selected with probability proportional to size, (size being the number of housing units in each PSU) and with replacement. From each selected PSU, 10 housing units (SSUs) were selected using systematic sampling. The sample covered a period of 12 months so that approximately 2000 households were interviewed in each month in the entire island. There are a number of advantages in spreading the sample in this manner.

- (i) It gives an even spread of sample throughout the year, which makes the results representative of the entire year. This is specially important since all three major subjects covered in this survey are affected by seasonal or other influences.
- (ii) The workload on the field staff is also spread and as such they are in a position to collect the data in a more efficient and effective manner.

- (iii) Spreading also makes it possible to provide estimates for various combinations of monthly sub-rounds to study seasonal variations. It however, should be noted that if estimates of seasonal changes are considered important, it is necessary to collect data from the same set of sampling units more than once during the year. In this survey the main emphasis was to obtain estimates that will represent the entire year.
- (iv) Estimates could be obtained in respect of the first few months of the survey without waiting until all the data are processed.

Available information consist of various cross-tabulations on employment, unemployment, education, household size, household income, per capita income and average household expenditure. Information is stored on magnetic tapes and may be used for further analysis.

A list of tables to be published is given in Appendix III.

4. Survey of Demographic and Social Aspects - 1986/87

The fourth survey carried out under the United Nations National Household Survey Capability Programme (UNNHSCP) is the Survey of Demographic and Social Aspects - 1986/87 (conducted during the period June 1986 to May 1987). This Survey would provide comprehensive information on demographic characteristics, migration, health, housing and access to amenities and cultural aspects. This is the first occasion, comprehensive information on migration, health, housing and cultural aspects was collected under the National Household Survey Programme. Earlier occasion in which such information was collected was in the Socio-Economic Survey 1969/70. However, only the basic information on these aspects was collected in that survey. The present survey will provide very valuable information for planners, policy makers and researchers.

Population movement could be regarded as closely related to social and economic development of developing countries like Sri Lanka. Rural-urban migration, for example has been the primary cause of rapid population growth in urban areas and has created major problems in planning the development of cities. Information on the pattern and reason of migration from one area to another is essential to the effort to find solutions to problems caused by such population movements. This survey covered only internal migration and it will provide information on long term, medium term, as well as short term migration.

Every country, whatever its stage of social and economic development, needs quantitative information on the health status of its population, the utilization of health services and socio-economic and

environmental factors affecting health. This information is a basic requirement for planning, management and evaluation of health services in the country and for monitoring the health status of the population. Administrative data generated by the health system cover a large part of the health and related information needed in the country. However, even with the most complete and efficient organization of routine, administrative statistics in the health services there are usually significant gaps in the data. For example, health services can usually generate data referring only to users of health system. Information on non-users and in particular on their characteristics and reasons for non-utilization can only be derived from other sources, like the household surveys. Important factors influencing health and health planning which are outside the scope of statistics generated by the health services include such socio-economic variables as age-sex distribution, household income, employment, household size and composition, housing conditions including sources of water, for drinking and for other purposes, lavatory facilities, etc. This survey covered many of the information required to fill the gaps in health information systems.

The two main topics related to participation of household members in cultural activities covered in this survey, are cultural facilities of households and the use of free time. Both topics are of great importance in any discussion of cultural development as they are closely linked to participation in cultural activities. Statistics on the cultural facilities of households, together with statistics on facilities outside the household, such as cinemas, theatres, libraries etc. may be used to measure access to cultural activities. The use of free time provides statistics on participation in cultural activities and also on the use made of the cultural facilities of households and those of the community at large. This survey made an attempt to

- (i) determine the cultural resources of the household;
- (ii) determine who among the various members of the household are users of the different cultural resources; and,
- (iii) obtain information on the use of resources.

These three lead to the overall objective which is to identify the cultural circumstances of the household and their influences on the household members.

In addition to above subject areas, information on housing and access to amenities were also collected.

5. Demographic and Health Survey - 1987

The Sri Lanka Demographic and Health Survey (SLDHS) was conducted by the Department of Census and Statistics (DCS) with technical assistance from the Demographic and Health Survey (DHS) programme of the Institute for

Resource Development (IRD), Westinghouse, USA and funded by the U.S. Agency for International Development. The primary objective of the survey is to provide policy makers and administrators with current and accurate data on fertility, mortality, family planning, and selected indicators of health status. This type of data is not only useful for assessing the effect of current and past programmes directed at reducing levels of mortality and fertility, but also one important for planning new strategies for improving the health and well being of the population. A second objective is to provide data which can be used to analyse trends over time. The SLDHS examines many of the same fertility, mortality, and health issues that were addressed in earlier surveys, such as the Sri Lanka World Fertility Survey (SLWFS) conducted in 1974 and the more recent Sri Lanka Contraceptive Prevalence Survey (SLCPS) conducted in 1982. A third objective is to add to the international body of data which can be used for comparative studies. Seven zones were created for this survey excluding administrative districts in the north and east of the country. A total of 8,118 households were listed in the seven zones and 6,170 eligible respondents were identified in these households. An eligible respondent for the survey was defined as an ever married women between the ages of 15 and 49 who slept in the household the previous night. Among the eligible respondents, interviews of 5,865 women were completed.

The SLDHS sample is designed to provide independent estimates for the seven zones in the country; national level estimates are obtained by approximately weighing each zone in the aggregate measure.

Two questionnaires were used for this survey. The first, referred to as "Household Questionnaire", was used to list all persons regardless of age, sex, or marital status who slept in the household the previous night. From this list eligible respondents (consisting of women currently married, divorced, separated, or widowed between the ages of 15 and 49 who slept in the household the previous night) were identified. The second "Individual Questionnaire" was then administered to each of these eligible women. The questionnaire contains nine separate sections which obtain detailed information from each respondent on:

1. Background characteristics
2. All live births and infant and child deaths
3. Contraceptive knowledge, ever use, and current use
4. Indicators of child health including immunizations received, episodes of diarrhea, breastfeeding, the use of supplementary foods, prenatal care and assistance at delivery
5. Marriage and migration
6. Fertility preferences

7. Husband's background and work
8. Socio-economic indicators
9. The length and weight of all children 3-36 months.

The SLDHS devoted considerable time and attention to obtaining information on the health status of mothers and children. In addition to many health related questions, anthropometric length and weight measurements were taken on all children 3 through 36 months of age. When analyzed these data will provide indicators of national child nutritional status.

A preliminary report on this survey has already been published and a full survey report with extensive tabulations and in-depth analysis will be available by the first quarter of 1988.

6. Household Survey of Agricultural Sector - 1987-88

The next survey under the National Household Survey Programme of Sri Lanka is the Household Survey of Agricultural Sector - 1987/88 is scheduled to commence in October 1987. This Survey will cover all households with at least one member who is engaged in an agricultural activity, either as an employer; own-account work or an employee (mainly agricultural labourers). In Sri Lanka 78 percent of the people live in the rural sector and more than 50 percent of the sector's employed population are in agriculture or related activities. This survey will provide comprehensive information on the people engaged in agricultural activities, their living standards, etc. It would also provide information on landless agricultural labourers who are considered to be the major poverty group in Sri Lanka.

All Surveys conducted by the Department of Census and Statistics, under the National Household Survey Programme of Sri Lanka, since 1984 had a sample of approximately 25,000 household (or housing units depending on the purpose of the Survey). This is approximately 0.7 percent of the total population of households. A sample of this magnitude is being used, as the estimates are required at sub-national levels (Districts) for planning purposes. This sample is usually spread over a period of 12 months, so that the number of households to be interviewed in each month in the entire island is approximately 2000.

III. CONCEPTS AND DEFINITIONS USED PARTICULARLY IN SAMPLE SURVEYS

This section gives the concepts and definitions used in the surveys described above.

A. Labour Force and Socio-Economic Survey - 1980/81

1. Households: The household is the basic unit of enumeration and analysis and for the purpose of this survey may be either:

- (a) A single - member household defined as a person who makes provision for his own food and other essentials for living without combining with any other person; or
- (b) A multi - member household defined as a group of two or more persons who combine to provide themselves with food and other essentials for living. These persons may be related or unrelated and the household may include boarders, lodgers and domestic servants who stay and share food or other essentials with the family;

However if the number of boarders exceeded three, then such households were considered institutional units and excluded from the survey.

It should be noted that household members who were temporarily absent and residing elsewhere in Sri Lanka or foreign countries were also considered as members of the household concerned. Even if a household member has gone abroad for a long period and if he/she expects to come back, then he/she was considered as a member of the selected household. However members of the family who were living separately due to marriage or some other reason, were not considered as members of the household.

2. Head of Household: The "Head" of household may be in most cases the principal bread-winner of the household or in certain instances a household may recognize a senior member as the "head" irrespective of his contribution to the household income. The head of household could be a male or female member who is acknowledged as such by other members of household.

3. Marital status: The marital status of a person refers to the current "de facto" conjugal status of the person. A person claiming to be married according to custom or repute should also be treated as married although the marriage has not been registered according to law. "Separated" refers to a person who has been granted a decree of separation by law and not a person merely living in separation.

4. Literacy: A person who can read and write a simple statement with understanding is considered "literate".

5. Working Age Population: The working age population comprises all persons who are 10 years of age and over. This consists of both "Economically Active Population" as well as "Economically Inactive

not involve any other inputs, for instance, a porter is also regarded as an employee. However, a person who works for payment for work done which involve some capital or material inputs, as for instance, a barber or a cobbler is regarded as an own account worker.

5. Own Account Worker: An own account worker is a person who operates his own enterprise, an enterprise owned partially along with other partners without the aid of any workers regularly employed for the purpose. The enterprise may be a business enterprise, a service undertaking or a farm. A person who operates his enterprise with the aid of unpaid family workers or with the aid of casual workers employed from time to time for periods of less than a month, at a time, to meet temporary exigencies of work will be regarded as an own account worker. If someone employs family members and pays wages or salaries, he should be considered as an employer and not as an own account worker. However, a person who has a domestic servant employed on a regular basis and utilises his/her services occasionally for assistance in the operation of his/her enterprise, will be regarded as an own account worker.

6. Unpaid Family Worker: An unpaid family worker is a person who works without any payment in an enterprise which may be a business enterprise, a service undertaking, or a farm, operated by a member of household.

7. Economic Activity: is an activity carried out for the production of economic goods and services and includes

- (i) production of all primary goods whether for the market, for barter or for own consumption; and
- (ii) production of all secondary goods and services for the market. In the case of households engaged in the production of secondary goods and services for the market, corresponding production for own consumption is also included as economic activity.

C. Labour Force and Socio Economic Survey 1985/86

1. Housing unit: A housing unit is defined as a place of residence which

- (i) is separate from other places of residence, i.e. where there are walls or partitions separating it so that the persons occupying it can live separately from other persons in the building or in the locality; and,
- (ii) has independent access, i.e. it has a separate entrance so that the occupants can enter and leave without passing through anybody else's living quarters.

A housing unit may contain one or more households. Living quarters other than housing units and non-housing units are excluded for this survey.

Living quarters other than housing units, defined as a building or a group of buildings where a number of persons generally not related to each other reside under the supervision of a central authority, e.g. convents, hostels, police barracks, hospitals, etc., and a non-housing unit is every building or part of a building which is not used as a place of residence, e.g. office, petrol filling stations, shop, etc.

2. Household: The household consists of one or more persons, living together and having common arrangements for food and other essentials of living. They may be related or unrelated persons or a combination of both. They are however expected to pool their incomes and have a common budget, to some extent if not totally. Domestic servants, boarders and lodgers who live and have their meals or share the other essentials of living with the family are also treated as members of the household. However, if the total number of boarders and lodgers exceeds five, then the household should be considered as an institutional unit and therefore, has not been included in this survey. Persons who usually live here but are temporarily away on holiday, visiting relatives, out on business or receiving treatment in a hospital should be included as members of the household but persons who have usual residence elsewhere, but present at the time of interview have to be excluded.

3. Head of Household: The head of household is the adult person, male or female who is responsible for the care of the households. She is generally an earning member, but this not always so. She may be an elder person who is regarded by the members of the household as the head. Where there is more than one household in the unit, each household should have its own head of household.

4. Literacy: A person who can both read and write with understanding a short statement is considered as "literate". A person who can read and write only his name, figures or memorised phrase should not be considered as "literate".

5. Employed: A person who works as an employer, paid employee, own account worker or unpaid family worker in any economic activity, is said to be employed.

6. Available for employment: Those who are seeking employment and those who do not seek employment at present (because they are discouraged due to inability to get an employment, or for some other reasons) but are ready to work, when an opportunity is given to him/her. Here the employment may be to work as an employer, paid employee, own account worker or unpaid family worker.

7. Economically active: A person is regarded as economically active if she is either employed or available for employment. Hence the period during which the person was employed and available for employment is considered as the period (s)he has been economically active.
8. Usually employed/usually unemployed (available for employment): If the person has been economically active for a major part of the last 12 months and if (s)he was mostly employed during economically active period (s)he is classified as usually employed. If (s)he was mostly unemployed during that period (s)he is classified as usually unemployed.
9. Household duties: Activities such as collecting and processing of food for household consumption; making, mending and washing clothes; looking after the household members etc., that are carried out for the maintenance of the household are considered household duties.
10. Studies: Studies include studying at schools, universities, other educational institutes and also at home.
11. Paid employee: A paid employee is a person who is employed for wage, salary, commission, tips or payment in kind, either on a regular or casual basis, on time rate or on piece rate, by an employer who may be a government department, a corporation, a state enterprise, a private company or an individual.
12. Regular employee: A paid employee who has worked at least one month at a stretch is considered a regular employee.
13. Casual employee: A paid employee who has worked for periods less than one month at a stretch is considered a casual employee.
14. Own account worker: An own account worker is a person who operates his own enterprise owned partially along with other partners, without the aid of any regular or casual employee. However, s(he) may get the assistance of unpaid family workers and household servants. The persons engaged in agricultural activities may sometimes hire casual employees during land preparation stage, harvesting stage, etc. These people are also regarded as own account workers.
15. Employer: A person who operates his own enterprise or an enterprise owned partially along with other partners with the aid of one or more regular or casual employees is considered an employer.
16. Unpaid family worker: A person who works in an enterprise operated by a member of his household or by a group of persons including at least one member from his household without any payment in cash or in kind.
17. Enterprise: An enterprise is an agricultural or a non-agricultural activity operated by a member of the household or by a group of persons in

partnership including at least one member from this household. A person is regarded as having an enterprise even if (s)he did not work in it during the reference period, if (s)he continued to have other factors of production involved in the enterprise such as land, building, machinery, equipment or tools available for use, and the enterprise has not been formally or informally wound up, disposed off or abandoned, or the activity undertaken through the enterprise is not given up. Agricultural activity may be seasonal crop cultivation, non-seasonal crop cultivation, livestock farming, fishing and fish breeding, forestry and hunting. (S)he may have operated that, for his/her own consumption or for sale. However, operating a home garden less than 20 perches in area, only for household consumption is not considered as an enterprise. Non-agricultural activities include mining and quarrying, manufacturing, construction, trade, transport, guesthouses, hotels etc. and service. Further, non-agricultural activities operated only for household consumption is not considered as an enterprise.

18. Occupation: Occupation is the type of work done by somebody in his workplace/enterprise; e.g., english typist, science teacher, paddy cultivator.

19. Industry: The nature of the work done in the workplace/enterprise where the person works is referred to as "industry". If more than one activity is performed by the institute, nature of the work done by the division where this person works is regarded as the industry.

20. Main occupation: If a person has more than one occupation, the one in which the person spends most of his working time is considered the main occupation. If a person is engaged in only one occupation, then that will be his/her main occupation.

21. Secondary occupation: Any activity carried out by a person for pay, profit or family gain in addition to his/her main occupation is considered as the secondary occupation.

22. Agricultural activity: Agricultural activity includes all types of cultivations, livestock and poultry farming, fishing and fish breeding, gathering of forest products etc. This may be carried out for household consumption and/or for sale. It includes not only the work involved in carrying out productive operations on the farm, but also related managerial work such as planning and organising farm operations, keeping of farm accounts etc. It also includes work done outside the farm but necessary for its operation such as bringing of fertilizer and other farm necessities, taking the produce to the market etc.

23. Non-agricultural activity: Non-agricultural activity includes all economic activities other than agricultural activities as defined above. These activities include mining and quarrying, manufacturing, construction, trade, hotels, transport, finance, real estate, business services and other services.

24. Output: In the case of material production, the output is the value of each product and by-product produced by the household members. In the case of other economic activities, output is measured differently in different activities. In respect of "Trade" the output is it's turnover whereas in respect of services it is the receipts.

APPENDIX - I

LIST OF TABLES

1. Based on one week reference period

Table

1. Population (5 years and over) by level of Education, Age and Sex
2. Working Age population by level of Education, Activity and Sex
3. Economically Active population by level of Education, Age and Sex
4. Economically Inactive population by Age, Race and Sex
5. Economically Inactive population by level of Education, Age and Sex
6. Employed population by Marital States, Age and Sex
7. Employed population by level of Education, Age and Sex
8. Employed population by level of Education, Employment Status and Sex
9. Employed population by Employment States, Age and Sex
10. Employed population by Age, Major Occupational Groups and Sex
11. Employed population by Employment Status, Major Occupational Groups and Sex
12. Employed population by Major Industrial Divisions, Major and Sex
13. Employed population by Major Industrial Divisions, Major Occupational Groups and Sex
14. Employed population by number of hours worked during the last one week period, Age and Sex
15. Employed population by number of hours worked during the last one week period, Employment Status and Sex
16. Employed Population by number of hours worked during the last one week period, Major Occupational Groups and Sex
17. Employed population by number of hours worked during the last one week period, Major Industrial Divisions and Sex

18. Unemployed population by Age, Race and Sex
19. Unemployed population by level of Education, Race and Sex

2. Based on one year reference period

Table

1. Working age population by Age, Activity Status and Sex
2. Employed population by Employment Status, Age and Sex
3. Employed population by Age, Major Occupational Groups and Sex
4. Employed population by Employment Status, Major Occupational Groups and Sex
5. Employed population by Age, Major Industrial Divisions and Sex
6. Employed population by Employment Status, Major Industrial Divisions and Sex
7. Employed population by Major Industrial Divisions, Major Occupational Groups and Sex
8. Employed population (Permanent and Temporary Employees only) by Work Experience in years, Major Occupational Groups and Sex
9. Employed population (Permanent and Temporary Employees only) by Work Experience in years, Major Industrial Divisions and Sex
10. Employed population by Number of Weeks Worked during the last one year period, Age and Sex
11. Employed population by Number of Weeks Worked during the last one year period, Employment Status and Sex
12. Employed population by Number of Weeks Worked during the last one year period, Major Occupational Groups and Sex
13. Employed population by Number of Weeks Worked during the last one year period, Major Industrial Divisions and Sex
14. Employed population (Employees Only) by Stability of Job, Major Occupational Groups and Sex
15. Employed population (Employees Only) by Stability of Job, Major Industrial Divisions and Sex

16. Unemployed population by duration of Unemployment, Age and Sex
17. Unemployed population by duration of Unemployment, Race and Sex
18. Unemployed Population and Economically Inactive Population by Number of Weeks Worked during last one year period and Activity Status

APPENDIX - II
LIST OF TABLES

Table

- | | |
|-----|--|
| 1 | Distribution of persons living in households with household economic activities by age and sex for districts |
| 2 | Distribution of persons living in households with household economic activities by age and sex for sectors |
| 3. | Distribution of persons living in households with household economic activities by ethnic group and sex for districts |
| 4. | Distribution of persons living in households with household economic activities by ethnic group and sex for sectors |
| 5. | Distribution of persons living in households with household economic activities by level of education and sex for districts |
| 6. | Distribution of persons living in households with household economic activities by level of education and sex for sectors |
| 7.1 | Number of household members engaged in household economic activities by major activity group, employment status and sex - All Island |
| 7.2 | Number of household members engaged in household economic activities by major activity group, employment status and sex - Urban Sector. |
| 7.3 | Number of household members engaged in household economic activities by major activity group, employment status and sex - Rural Sector. |
| 8. | Average number of days worked per month by the household members engaged in household economic activities by major activity group, employment status and sex - All Island/Sectors. |
| 9.1 | Value of fixed assets acquired, disposed, owned, otherwise possessed and used for household economic activities by type of asset - All Island. |
| 9.2 | Value of fixed assets acquired, disposed, owned, otherwise possessed and used for household economic activities by type of asset - Urban Sector. |
| 9.3 | Value of fixed assets acquired, disposed, owned, otherwise possessed and used for household economic activities by type of asset - Rural Sector. |

10. Total value of fixed assets used in household economic activities by district and major activity group.
- 11.1 Loans taken for household economic activities, amount re-paid, interest paid during a calendar year and amount outstanding by source of loan - All Island
- 11.2 Loans taken for household economic activities, amount re-paid, interest paid during a calendar year and amount outstanding by source of loan - Urban Sector
- 11.3 Loans taken for household economic activities, amount re-paid, interest paid during a calendar year and amount outstanding by source of loan - Rural Sector
- 12 Loans taken for household economic activities during a calendar year by district and major activity group
- 13.1 Number of hired persons employed in household economic activities, person days worked and remuneration by major activity group - All Island
- 13.2 Number of hired persons employed in household economic activities, person days worked and remuneration by major activity group - Urban Sector
- 13.3 Number of hired persons employed in household economic activities, person days worked and remuneration by major activity group - Rural Sector
14. Hired labour employed in household economic activities - person days worked by district and major activity group
- 15.1 Value of inputs purchased and used for household economic activities by input item and major activity group - All Island
- 15.2 Value of inputs purchased and used for household economic activities by input item and major activity group - Urban Sector
- 15.3 Value of inputs purchased and used for household economic activities by input item and major activity group - Rural Sector
16. Total value of inputs purchased and used for household economic activities by district and major activity group
17. Total value of inputs used (per year) for household economic activities by district and major input item.

- 18.1 Seasonal crops (for two cultivation seasons) - Area Used for cultivation, quantity and value of output, household consumption, sales, stock etc., by type of crop - All Island
- 18.2 Seasonal crops (for two cultivation seasons) - Area used for cultivation, quantity and value of output, household consumption, sales, stock etc. by type of crop - Urban Sector.
- 18.3 Seasonal crops (for two cultivation seasons) - Area used for cultivation, quantity and value of output, household consumption, sales, stock etc. by type of crop - Rural Sector
- 19. Seasonal crops (for two cultivation seasons) - Total value of output, household consumption and sales by district.
- 20. Seasonal crops (for two cultivation seasons) - Quantity and value of sales by marketing agency and type of crop - All Island
- 21.1 Non seasonal crops (per month) - Area cultivated, quantity and value of output, household consumption, sales, stock etc. by type of crop - All Island
- 21.2 Non seasonal crops (per month) - Area cultivated, quantity and value of output, household consumption, sales, stock, etc. by type of crop - Urban Sector
- 21.3 Non seasonal crops (per month) - Area cultivated, quantity and value of output, household consumption, sales, stock, etc. by type of crop - Rural Sector
- 22 Non seasonal crops (per month) - Total value of output, household consumption, sales and stock by district.
- 23 Livestock (per year) - Changes of livestock numbers during a year by type of livestock - All Island
- 24.1 Livestock products (per month) - Quantity and value of output, household consumption, sales, etc. by type of livestock product - All Island
- 24.2 Livestock products (per month) - Quantity and value of output, household consumption, sales, etc. by type of livestock product - Urban Sector
- 24.3 Livestock products (per month) - Quantity and value of output, household consumption, sales, etc. by type of livestock product - Rural Sector

- 25 Livestock products (per month) - Total value of output, household consumption, sales and stock by district.
- 26.1 Fishing and fish breeding (per month) - Quantity and value of catch/output, household consumption, sales and stock etc. by item - All Island
- 26.2 Fishing and fish breeding (per month) - Quantity and value of catch/output, household consumption, sales and stock etc. by item - Urban Sector
- 26.3 Fishing and fish breeding (per month) - Quantity and value of catch/output, household consumption, sales and stock, etc. by item -Rural Sector
- 27.1 Mining and quarrying (per month) - Quantity and value of output, sales, stock, etc. by type of mineral - All Island
- 27.2 Mining and quarrying (per month) - Quantity and value of output, sales, stock, etc. by type of mineral - Urban Sector
- 27.3 Mining and quarrying (per month) - Quantity and value of output, sales, stock, etc. by type of mineral - Rural Sector
- 28 Mining and quarrying (per month) - Total value of output, sales and stock by district.
- 29.1 Manufacturing (per month) - Value of output, household consumption, sales and stock, etc. by type of product - All Island
- 29.2 Manufacturing (per month) - Value of output, household consumption, sales and stock, etc. by type of product - Urban Sector
- 29.3 Manufacturing (per month) - Value of output, household consumption, sales and stock, etc. by type of product - Urban Sector
- 30 Manufacturing (per month) - Total value of output, sales and stock by district.
- 31.1 Construction (work done during a month) - Number of person days put in, cost of materials used in construction work done for own use and amount received in payment for work done for others (including cost of materials) by type of construction -All Island

- 31.2 Construction (work done during a month) - Number of person days put in, cost of materials used in construction work done for own uses and amount received in payment for work done for others (including cost of materials) by type of construction - Urban sector.
- 31.3 Construction (work done during a month) - Number of person days put in, cost of materials used in construction work done for own use and amount received in payment for work done for other (including cost of materials) by type of construction - Rural Sector
- 32 Construction (work done during a month) - Number of person days put in an amount received in payment for work done by district
- 33.1 Trade (per month) - Total value of purchases, household consumption, sales, etc. by main branch of trade - All Island
- 33.2 Trade (per month) - Total value of purchases, household consumption, sales etc. by main branch of trade - Urban Sector
- 33.3 Trade (per month) - Total value of purchases, household consumption, sales, etc., by main branch of trade - Rural Sector
- 34 Trade (per month) - Total value of purchases, household consumption and sales by district.
- 35.1 Transport (per month) - Number of vehicle miles driven, number of passengers and quantity of goods transported and the total receipts by type of vehicle - All Island
- 35.2 Transport (per month) - Number of vehicle miles driven, number of passengers and quantity of goods transported and the total receipts by type of vehicle - Urban Sector
- 35.3 Transport (per month) - Number of vehicle miles driven, number of passengers and quantity of goods transported and the total value receipts by type of vehicle - Rural Sector
- 36 Transport (per month) - Number of vehicle miles driven and the total receipts by district
- 37 Guest houses, restaurants, bars, coffee shops, tea shops, etc. (per month) - All Island
- 38.1 Services (per month) - Number of clients served and the amount received by type of service provided - All Island

- 38.2 Services (per month) - Number of clients served and the amount received by type of service provided - Urban Sector
- 38.3 Services (per month) - Number of clients served and the amount received by type of service provided - Rural Sector
- 39 Services (per month) - Number of clients served and the amount received by district.

APPENDIX - III
List of Tables

- 1. Population Distribution by age and sex -All Island/Sectors
- 2.1 Population by age, race & sex - All Island
- 2.2 Population by age, race & sex - Urban Sector
- 2.3 Population by age, race & sex - Rural Sector
- 2.4 Population by age, race & sex - Estate Sector
- 3.1 Population (5 years & over) by age, level of education and sex - All Island
- 3.2 Population (5 years & over) by age, level of education and sex - Urban Sector
- 3.3 Population (5 years & over) by age, level of education and sex - Rural Sector
- 3.4 Population (5 years & over) by age, level of education and sex - Estate Sector
- 4.1 Population (10 years & over) by age, literacy and sex - All Island
- 4.2 Population (10 years & over) by age, literacy and sex - Urban Sector
- 4.3 Population (10 years & over) by age, literacy and sex - Rural Sector
- 4.4 Population (10 years & over) by age, literacy and sex - Estate Sector
- 5. Age specific literacy rates by sex - All Island/Sector
- 6.1 Working age population (10 years & over) by age, activity and sex - All Island
- 6.2 Working age population (10 years & over) by age, activity and sex - Urban Sector
- 6.3 Working age population (10 years & over) by age, activity and sex - Rural Sector

- 6.4 Working age population (10 years & over) by age, activity and sex
- Estate Sector
- 7.1 Employed population by level of education age and sex - All Island
- 7.2 Employed population by level of education, age and sex - Urban
Sector
- 7.3 Employed population by level of education, age and sex - Rural
Sector
- 7.4 Employed population by level of education, age and sex - Estate
Sector
- 8.1 Employed population by employment status age and sex - All Island
- 8.2 Employed population by employment status age and sex - Urban
sector
- 8.3 Employed population by employment status age and sex - Rural
Sector
- 8.4 Employed population by employment status age and sex - Estate
Sector
- 9.1 Employed population by major occupational groups and by age and
sex - All Island
- 9.2 Employed population by major occupational groups and by age and
sex - Urban Sector
- 9.3 Employed population by major occupational groups and by age and
sex - Rural Sector
- 9.4 Employed population by major occupational groups and by age and
sex - Estate Sector
- 10.1 Employed population by major industrial divisions (for main
occupation) age and sex - All Island
- 10.2 Employed population by major industrial divisions (for main
occupation) age and sex - Urban Sector
- 10.3 Employed population by major industrial divisions (for main
occupation) age and sex - Rural Sector
- 10.4 Employed population by Major Industrial Divisions (for main
occupation) age and sex - Estate Sector

- 11. Age specific employment rates by sex - All Island/Sector
- 12.1 Unemployed population by age, level of education and sex - All Island
- 12.2 Unemployed population by age, level of education and sex - Urban Sector
- 12.3 Unemployed population by age, level of education and sex - Rural Sector
- 12.4 Unemployed population by age, level of education and sex - Estate Sector
- 13.1 Unemployed population by age, race and sex - All Island
- 13.2 Unemployed population by age, race and sex - Urban Sector
- 13.3 Unemployed population by age, race and sex - Rural Sector
- 13.4 Unemployed population by age, race and sex - Estate Sector
- 14 Age specific unemployment rates by sex - All Island/Sectors
- 15. Average expenditure per household per month by expenditure items - All Island/Sectors

ANNEX II

A REVIEW OF GENDER - SPECIFIC SOCIAL AND ECONOMIC INDICATORS

by

Dr. Gamini Abeysekera

I. INTRODUCTION

The thirst for information leads us to gather data on various aspects of life and society. Data by themselves, however, will not convey anything meaningful unless they are processed, tabulated and analyzed systematically. In other words, data have to be converted to "indicators" for any meaningful use of the information that are collected. Indicators are important to find out status, change and progression of any variable or system. Depending on the purpose of the analysis indicators can be constructed in regard to either general or specific situations. Recent years have witnessed a growing concern for specific indicators as opposed to general indicators. Accordingly, statistical concepts and their definitions have been revised and refined to capture greater details of a large range of variables, which in turn, helped the generation of multiple of indicators. We are therefore, in a position today to talk about "gender-specific social and economic indicators".

The need for devising indicators regarding various dimensions of our society mainly arose from the recognition of the fact that the word "development" cannot be given a single or simple definition. The multifaceted nature of development requires the measurement of the degree of change and progress of living conditions of people more realistically and effectively. For this purpose, it has become necessary to devise and employ numerous specific indicators in addition to the traditional general indicators. For example, the measurement of development which was confined to economic growth relating to production and increases in income in a country has now been considered inadequate and unrealistic in judging the living conditions of people. Therefore, the scope of development indicators have been enlarged and differentiated to cover at least three most vital aspects of life, namely, demographic, social and economic. Similarly, general indicators of development encompassing entire country or society have also been considered inadequate or inappropriate to examine the progress of certain crucial segments, for which specific indicators need to be employed. Accordingly, a relatively recent, but a rather vigorous campaign for gender-specific indicators appear to have made significant progress.

The most important land mark in regard to the campaign for gender specific development indicators was the declaration of the United Nations' Decade for Women in 1975. The UN Decade for Women began in the middle of the Second UN Development Decade which explicitly recognised

and unequivocally emphasized the need for distributive social justice deviating from the earlier preoccupation with mere economic growth. In consonance with the goals of the UN Decade for Women, two main action oriented programmes were immediately prepared prioritising the need for integrating women in development.^{1/}

These programmes defined integration of women in terms of equal access to assets, knowledge, skills and services as well as human dignity through equal participation in the development process. They also stressed as a prerequisite to such a process, the need to focus on women as a specific target group in national development plans and programmes. In view of the observations made at various forums that women are affected by general conditions in their society, particular conditions of their socio-economic classes or groups, as well as by their position as women per-se, the importance of collecting, processing and analyzing gender-specific data has been highlighted. This paved the way to launch a series of both research and action oriented studies on Women and Development at national as well as international levels. Consequently, significant progress has already been made in regard to devising gender-specific social and economic indicators.

It has been pointed out that "Women in Sri Lanka were apparently a non-issue prior to 1970 and were not mentioned specifically as a target group in the plethora of plans and programmes prepared from forties to sixties. They were, however, equal beneficiaries of the social welfare policies that were an important component of national plans since the forties.....the visibility of women in the public scene and the official consciousness increased with the establishment of the Women's Bureau as a special national machinery to enhance the position of women..... but there is little evidence of purposeful integration at the planning level over the last ten years. As in many other countries, development plans and programmes are seen to have had a differential impact on men and women"^{2/}. However, it is noteworthy that the 1978 Constitution which removed disabilities based on quotas in public sector employment even included women with children and the disabled as the 'dependant group' needing special protection^{3/}. Furthermore, the Public Investment

^{1/} a) Declaration of Mexico, Plans of Action - World Conference of the International Women's Year (19 June - 2 July 1975), United Nations, New York, 1975. b) Programmes of Action for the Second Half of the United Nations Decade for Women: Equality, Development and Peace. World conference of the United Nations Decade for Women: Copenhagen, Denmark, (14-30 July 1980).

^{2/} See, Swarna Jayaweera, "Integration of Women in development planning". UN Decade for Women - Progress and Achievements of Women in Sri Lanka. Centre for Women's Research, Sri Lanka, 1985, p.p. 1-2.

^{3/} Ibid, p.3

Programme (1982-86) focussed on women as a specific target group in policy making by explicitly stating that "The provision of more and better employment for women in order to improve the status of women and to integrate them more meaningfully into the development process has been a major objective of the government."^{4/}

Meanwhile, several special studies, seminars and workshops have been conducted in Sri Lanka, in view of the international Women's Year and in the context of the UN Decade for Women, to examine different aspects of women and development. While such attempts were mainly piece-meal in nature a comprehensive study on women in Sri Lanka containing an integrated view of the situation of women was attempted in 1979. This document entitled "The Status of Women" covered a range of topics such as socio-cultural factors, demographic situation, law, creative arts and mass media, education, employment, political participation, health and nutrition, and turned out to be a major source of information on issues related to women both at macro and micro levels.^{5/} Of particular importance, of such attempts has been the initiatives taken to dig up data and information on women for meaningful analysis of their status which in turn, necessitated the construction and interpretation of a comprehensive set of gender-specific socio-economic indicators. The establishment of the Centre for Women's Research (CENWOR) in 1984 has enabled both institutionalization and co-ordination of research in the field of women and development. The assistance rendered by several national and international agencies to promote research on women and development also contributed significantly to expand and refine the data base required for gender-specific analyses.^{6/}

While agreeing that there has been a dearth of systematic analyses of gender-specific data and insufficient emphasis on the importance of gender-specific development indicators, it can also be argued that this was due to lack of interest in this field than to the absence of data. For example, census data pertaining to demographic factors and certain socio-economic characteristics of the population have been available on a gender-specific basis for several decades. Similarly, numerous surveys conducted by agencies such as the Department of Census and Statistics (DCS) and the Central Bank of Sri Lanka also contained valuable information on aspects such as literacy, education, employment, earnings and income distribution, by sex. Further, several government Ministries and Departments mainly in the fields of health, education, social services, labour, plantations, trade and public administration compile data on their respective subjects on a routine basis for administrative purposes. It is however, only recently that organized attempts have been made to make use of such information for analytical and policy research.

^{4/} Quoted in Ibid. p. 3

^{5/} Status of Women, University of Colombo, 1979

^{6/} For details see, Hema Goonatillake, Research and information on Women in UN Decade for Women....op. cit. pp. 31-47.

II. INDICATORS AND THEIR USES

Indicators are qualitative or quantitative signals based on factual observations. The interpretation of indicators are as important as their construction. Compilation of appropriate and accurate information is a basic pre-requisite for construction of indicators. Indicators must inter-alia have the property of being able to summarise the details on information gathered on a given subject. Such summarization of information requires systematic tabulation of data. Hence, it is necessary to ensure that gathering, processing and summarizing of data are carried out with utmost care to ensure objectivity, accuracy and efficacy. The preparation of indicators therefore, is not an easy task. While certain indicators need to be supplemented with others it might also be possible to consider some indicators as alternatives to others. However, it is crucial to examine both supplementary and alternative indicators before making interpretations and conclusions.

As the name suggests, indicators are intended to give indications of a given situation or reflect the changes between different situations while also pointing to the likely progression of such situations. Very often, indicators are considered as "variables which help to measure changes", particularly by international organizations.^{7/} Accordingly, it is necessary to examine the baseline conditions at a given point in time, and thereafter, assess the changes in those conditions after a period of time. Similarly, it is possible to compare and contrast conditions of different places either at a given point of time or after a specified period of time. Further, it is also possible to examine the similarities or differences, both at a given point in time and after a time lag, in respect of identifiable target groups. The gender-specific development indicators can serve a number of such purposes.

As already mentioned earlier, indicators are processed information or computed data and not just raw statistics. While statistics provide the basis for the actual construction of an indicator there has to be an accepted theoretical or logical framework for devising indicators; otherwise any indicator could become meaningless. For example, mere presentation of some statistical information arranged by rows and columns in the form of a table cannot be considered an indicator or a set of indicators. While such statistics might be useful for further analysis, they would not qualify to be called indicators unless processed and summarised according to a theoretical or a logical formula. For example, it is possible to give information about the number of females in different districts of the country in the form of a table; but unless

^{7/} See for example, Development of Indicators for Monitoring Progress towards Health for All by the Year 2000, world Health Organization, Geneva, 1981.

such numbers are processed taking into account the area of each district to arrive at the density of female population which is a demographic indicator, the usefulness of the raw statistics will in themselves, be very limited. Therefore, indicators can be considered as processed statistics conveying some meaningful information. Accordingly, indicators are often expressed as proportions, percentages, ratios, rates or co-efficients etc., summarising detailed information and reflecting a given situation and even suggesting its trends.

In a review of indicators, it is also important to draw attention to the nature of different indicators that can be employed to gain insights into a particular situation. It is possible to classify the nature of indicators broadly as follows:

(a) General and specific indicators: the former refers to overall indicators applicable to an entire area or whole population while the latter relates to limited indicators confined specifically to a given sector, region or a group. For example, literacy rate is an indicator reflecting the proportion of persons in a given population who can read and write and this indicator can be computed for the country as a whole as well as for a specific sector, region or a group, (such as the agricultural sector, rural and female population respectively). Accordingly, for almost every gender-specific indicator it should be possible to have the corresponding general or overall indicator.

(b) Direct and indirect indicators, as the words suggests, can be indicators conveying a message either directly or indirectly. While direct indicators are based on actual and straight forward measurements, indirect indicators are considered as reflections or manifestations of a particular situation. For example, an increase in average income expressed in percentage terms can serve as a direct indicator of improved standard of living while the proportion of people who own motor cars, refrigerators or televisions can be considered as an indirect indicator of affluence.

(c) Real and monetary indicators: the difference between these two categories lies basically in the units of measurement. However, for analytical purposes it might be necessary to construct both these types to supplement the information conveyed by each other. For example, per capita income measured in money terms may not convey a realistic idea about the level of welfare, as inflation can erode the purchasing power. Therefore, it is essential to supplement the monetary indicators with real indicators (to ascertain, for example the extent to which, information on the consumption of a basket of goods is possible within a given level of income).

(d) Input indicators and output indicators refer to the possibility of assessing the progress of a particular situation on the basis of either the effort that is made, or the end product that is generated. While both these indicators appear to be useful in understanding given situations and

their changes, it is generally argued that development indicators should relate to outcomes rather than inputs of various programmes. For example the proportion of government expenditure spent on maternal health care is an input highlighting the emphasis placed on health of females; but its effectiveness can only be judged by examining an appropriate output indicator relating to this aspect, such as the maternal death rate. Nevertheless, both input and output indicators would become useful for different purposes, particularly in resource allocation and monitoring projects, respectively.

(e) Simple and complex indicators: depending on the method of computation, an indicator can either be extremely simple or rather complicated. There is no intrinsic value in complex indicators as simple indicators can also convey information quite effectively. The advantage of a complex indicator lies in the ability to integrate several pieces of information into a comprehensive and precise formula to come up with a single statistic summarising the situation. However, the interpretation of a complex indicator requires a certain amount of knowledge on methodological and analytical aspects of statistics. For example, it is possible to construct a composite index such as the Physical Quality of Life Index (PQLI) using relatively simple indicators like infant mortality, life expectancy and literacy. The PQLI is not only a relatively complex indicator to construct but also a somewhat controversial indicator to interpret in regard to the standard of living. In the absence of convincing arguments for the use of complex indicators covering a number of conditions of development, a set of individual simple indicators may be employed in general.

(f) Quantitative and qualitative indicators: if indicators are meant to reveal a given status, its change as well as its progression, they must cover both quantitative and qualitative aspects. However, indicators generally refer to measurable observations and quantifiable entities. Therefore, there has been a tendency to leave out the qualitative aspects when devising indicators of development. For example, while information on ages of brides have been used to construct an indicator such as the mean age at marriage among the female population, no attempt has been made to construct an indicator relating to happiness in marriage. One might argue that it should be possible to arrive at such an indicator indirectly, on the basis of the number of marriages ending in divorces; but this can only be a very crude proxy for an indicator of happiness in marriage as not all unhappy marriages may necessarily end up in divorce. Nevertheless, it is no doubt important to supplement quantitative indicators with qualitative information wherever possible.

The foregoing general classification of indicators is equally applicable to gender-specific indicators referring to characteristics or situations pertaining to males or females. Therefore, when selecting appropriate statistical indicators for socio-economic analyses of the female population, it is important to bear in mind that a range of different indicators is available to choose from. It is therefore, the

responsibility of the researcher to identify and employ the most appropriate indicators in his or her analysis. Very often however, the paucity of data becomes a constraint for actually constructing the theoretically most appropriate indicators. In such circumstances, there is little choice but to resort to the "second best" or a proxy indicator. Yet, it should also be possible for an ambitious researcher to launch a project to generate information that is required to construct essential indicators for analysis. It is encouraging to note that several useful steps have been taken in the 1970's and 1980's to compile information and construct indicators pertaining to the conditions of women.^{8/} Accordingly, valuable guidelines are increasingly becoming available to facilitate a comprehensive set of gender-specific indicators relevant for development planning and programming.

III. TYPES OF INDICATORS

As gender-specific indicators relate to people and their environment, it is possible to identify at least four main types of information that can be developed as indicators, namely, demographic, biological, social and economic. Demographic indicators refer to the four main stages of any person's life; namely, birth, marriage, lifespan and death. Biological indicators may include height, weight, nutritional status and various disabilities of a person. Among the most important areas of social indicators are, those relating to education, health, participation, and habits. The major economic indicators are based on employment, production, earnings, income distribution and expenditure patterns. These four types may not exhaust all possible indicators which can be constructed on a gender-specific basis. For example, certain important aspects of life such as pollution, security and religiousness etc., can form useful basis for development of gender-specific indicators. However, in this discussion our main concern will be demographic, biological, social and economic indicators.^{9/} The gender-specific indicators cited as examples in this discussion do not necessarily refer to such information available in Sri Lanka. However, attempt has been made to base the discussion on Sri Lanka's experience in regard to compilation of data for gender-specific indicators.

^{8/} For example, the United Nations Research Institution for Social Development (UNRISD) initiated a research project on "Monitoring Changes in the Conditions of Women - a Critical Review of Possible Approaches" by Ingrid Palmer and Ulrike von Buchwald.

^{9/} Also see, Compiling social indicators on the situation of women - Technical Report draft submitted by Prof. Mary Powers, to Expert Group on improving statistics and indicators of women, New York, 1983.

Demographic Indicators

The most known and prevalent gender-specific indicators appear to be those relating to demographic variables. It is possible to extract from the census data of many countries gender-specific information on births, deaths, infant mortality, maternal mortality, age composition, ages at marriage, length of life etc., which are essential for the construction of the most basic statistical indicators of any society.

A review of the demographic indicators which are either already available or easily obtainable on a gender-specific basis will reveal the following list as the most important indicators.

1. Rate of growth of population by sex

The rate of growth of population is a simple indicator of population change over a period of time, usually computed as an annual rate in percentage terms. As the data on composition of population are available on a gender-specific basis it is possible to compute the growth rate of male and female populations though it is not normally always estimated. In general, males and females contribute roughly 50% each to the total growth of the population. Therefore, when the overall population growth rate is calculated it can be treated as an approximation of the gender-specific growth rates. Hence, unless special circumstances, such as occurrence of a war, makes it necessary to do so, gender-specific population growth rates need not be separately computed.

2. Density of population by sex

This is an indicator of the pressure of population growth on land. The number of persons per square kilometer is computed by dividing the total number of people by the area of a country so that an increasing number indicates a growing density. This same exercise can be conducted to examine the density of population by sex which will indicate the number of males or females per square kilometer in a given country or a region.

3. Sex ratio of the population

This is an indicator of the relative strength of males or females in the total population. It is expressed as ratio of number of males per 100 females. Generally, about 5% more males for every 100 females can be observed in a country, so that the male/female sex ratio will turn out to be approximately 105.

4. Mortality rate by sex

This indicator refers to the number of deaths per 1000 living persons and can be computed either for the entire population or

specifically for males and females. Generally, mortality rates are classified by age groups as the occurrence of death tends to vary with age. Therefore, age specific mortality rates for a given sex or the entire population are generally computed.

5. Infant mortality rate by sex

Infant mortality rate (IMR) is considered one of the most important indicators of welfare. While it is generally calculated for the infant population as a whole, it is also possible to make it available in respect of male and female infants. This indicator refers to the number of infant deaths (under 1 year of age) per 1000 live births. IMR reflects not only demographic conditions but also health conditions particularly of the infants and of the mothers as well.

6. Child mortality rate by sex

Annual number of deaths among children in ages between 1 and 14 years, per 1000 of the population in the same age group, is defined as the child death rate which can be computed for the entire child population or for both sexes. Whether a particular sex group is more susceptible to mortality can be ascertained by computing a gender-specific child mortality rate.

7. Maternal mortality rate

This is a gender-specific indicator confined only to females (as males do not bear children). Maternal mortality rate (MMR) is defined as the number of women who die from child bearing in a given year, per either 1000, 10,000 or 1000,000 of births, during the same period. This is also widely used as a welfare indicator, as it reflects the adequacy of health facilities, nutritional level of pregnant mothers and other relevant socio-economic conditions. The MMR can also be computed as an age specific indicator to ascertain whether mothers of a particular age group are more vulnerable compared to the other age groups.

8. Marital status by sex

This information is usually collected as a part of demographic data in population censuses; but it also reflects certain socio-economic and cultural aspects of a given society. The marital status of males and females can generally be classified as, never married, married, widowed, legally separated or divorced. The number under each category as a proportion of total male or female population can be computed to arrive at the percentage distribution of population by sex and marital status.

9. Mean age at marriage by sex

Demographic information regarding marriages are usually compiled on the basis of sex and age groups. Accordingly, it is possible to obtain

data in respect of bridegrooms and brides on their age at marriage. This information can be converted to an indicator depicting the average or mean age at marriage. The trends shown by such an indicator can have both demographic and socio-economic implications. For instance, a higher mean age at marriage particularly of females, could indicate a reduction in the reproductive capacity due to narrowing down of the fertility period. Such a trend may also be a reflection of socio-economic changes such as females pursuing higher education, or securing employment, resulting in postponement marriage.

10. Total fertility rate

Fertility refers to the number of livebirths per woman within a specific period of time, normally one year. However, it is necessary to have the age specific fertility rate in respect of all ages within the child bearing ages in order to arrive at the Total Fertility Rate (TFR). Generally, the reproductive period is considered to be between 15 and 45 years of age, sometimes extended to 49 years. The trends in TFR are important to understand the movement of birth rates and its likely future scenario.

11. Life expectancy by sex

This is a widely used demographic indicator, in the assessment of standard of living and quality of life of a population. The life expectancy at birth is the average number of years that a new born can expect to live under the existing conditions of age specific mortality rates. It has consistently been revealed that the expectation of life at birth is relatively higher for females than for males in many countries. Therefore, an examination of this indicator in respect of males and females should lend itself to an inquiry of the socio-economic, biological and any other factors that could have contributed to the observed differential in life expectancy between males and females.

B. Biological Indicators

Biological indicators deal with physical characteristics of a population such as weight, height, strength and disability. However, such information is not generally as well covered in the same way as are the demographic variables in population census. Similarly, many biological indicators are rarely used in analysis of development issues. The main field of study which tends to refer to such information is medical science where physical characteristics of a population is the focal point. However, with broad basing of definition of development to encompass a multiplicity of aspects including health and nutrition, certain biological indicators have become increasingly important. Discussions on nutrition in particular, are based on anthropometric measurement of weight and height in relation to age as well as sex.

Similarly, information regarding physical or mental disabilities have also become important for drawing up social welfare policies and programmes. Some of the useful biological indicators are considered below.

1. Percentage of low birth weight babies

It has been considered that birth weight is an indicator of the chance of survival of an infant. It also reflects the level of maternal nutrition and pre-natal care of pregnant women as well as adequacy of birth spacing. Hence, monitoring low birth weight cases enables identification of "at risk" groups and formulation of appropriate programmes for them. To compute an indicator relating to low birth weight it is necessary to arrive at an acceptable critical minimum birth weight (such as 2.5 kilograms). Then, the number of live born babies with birth weight less than this minimum can be computed as a proportion of the total number of live born babies in the same period. This proportion can also be expressed in percentage terms and specifically for male or female babies.

2. Indicators of under-nourishment of children

The degree of malnutrition is measured mainly by using two different biological indicators known as Waterlow classification and Gomez classification. These indicators can be computed for all children of a given age group or separately for male and female children. According to Waterlow classification, a malnourished child can be identified under three levels; i.e. acute, chronic and concurrent. Acute malnourishment is defined as weight for height less than 80% and height for age not less than 90%; chronic malnutrition is explained as height for age less than 90% and weight for height not less than 80%; and concurrent malnutrition refers to height for age less than 80% and weight for height less than 80%. Using the Gomez classification three levels of mal-nourishment can be identified as mild, moderate and severe. In this case, weight for age is considered and classified as mild if it is between 90% and 76%; as moderate if the range is between 75% and 61%; and as severe if less than 61%. Thus, it appears that certain biological indicators have formed the basis for analysis of nutritional status of the population.

3. Proportion of persons with physical or mental disability

In view of the importance of drawing up social security and welfare programmes to cater for the needs of handicapped persons, it is necessary to compile information on persons with physical or mental disabilities. Such information is generally sought in census questionnaires and compiled by both sex and age. However, detailed information regarding the type of disability might not be available under the published census data. Therefore, special attempts have to be made to extract such details from original census questionnaires and/or from separate surveys conducted for the purpose. Accordingly, data in regard to persons with disabilities in limbs, those who are deaf, blind or dumb or persons who

are mentally unsound can be obtained. Such estimates classified by age and sex can be converted to indicators using an appropriate base such as the total number of persons in respect of age/sex groups, and estimated as proportions or percentages.

C. Social Indicators

With the expansion of the definition of development to encompass social aspects there has been an increasing effort to compute a range of social indicators. Accordingly, development is now broadly considered as socio-economic progress rather than mere economic advancement. Hence, social statistics become important in analyses. They generally refer to aspects such as education, health and participation of people. Sometimes the basic demographic indicators referring to mortality, fertility and life expectancy are also considered as social indicators. As these demographic indicators have already been dealt with in a previous section what follows here is a discussion of several other social indicators. There is a general assumption that social progress goes hand in hand with economic growth; but this has been a controversial hypothesis. Therefore, it is always important to examine the social indicators in relation to economic indicators. While social indicators are computed for the entire population it is also possible to disaggregate such information to arrive at gender-specific indicators, if necessary.

1. Educational attainment and literacy

One of the most important aspects of social development is literacy and educational attainment and information on these variables can be presented by age and sex groups. However, a table containing data on levels of education and literacy in respect of different age groups or male and female groups cannot be considered as an indicator. Actually, an appropriate index of educational attainment will have to be worked out with the data given in such a table as has been attempted in the Reports of the Consumer Finance Surveys of the Central Bank of Sri Lanka. In the absence of such a single dimensional index on educational attainment it is possible to look at the percentages of males and females with particular educational qualifications as indicators of educational attainment.

2. School enrolment ratio

Access to schooling as well as actual utilisation of educational facilities are important to assess social progress. Accordingly, school enrolment ratio is considered to be an important social indicator. This ratio is normally defined in relation to children attending primary schools. The number of children aged 5 - 10 years enrolled in primary schools (lower kindergarten to Grade 5) per 100 children of the same age group constitutes this ratio. If there is a variation in the age limit for primary schooling, the age group mentioned here has to be appropriately modified. This ratio can be used to ascertain information about school attendance by either male or female children. The

computation of enrolment ratio can also be extended to other relevant levels of schooling such as secondary school enrolment ratio and higher educational enrolment ratio. Such ratio can also be used to ascertain the drop-outs ratios from one level to the other.

3. Higher educational attainment by sex

In view of the general belief that women in many developing countries do not pursue studies beyond primary or secondary level, due to various socio-cultural and economic reasons, the proportion of females in higher educational institutions is considered an important indicator of women and development. It is possible to compute the percentage shares of each sex group in the Universities and other higher academic institutions. This can be done by field of study as well. It is also possible to estimate the number of females in a particular age group (generally conforming to the ages of university students) attending higher educational institutions as a percentage of total females in the same age group. The equality of educational opportunities and the socio-cultural taboos pertaining to female participation in professional occupations will also be reflected in such indicators of higher education.

4. Vocational education enrolment ratio

This is an indicator which cuts across both social and economic spheres. In view of the general feeling that formal academic qualifications do not necessarily enable the educated youth to improve job opportunities, greater emphasis has been recently placed on Vocational and Technical Education. Accordingly, vocational education enrolment ratio has assumed importance in recent years. This indicator is defined as the number of persons enrolled in institutions such as technical colleges and polytechnics, per 100,000 of the population in the age group, corresponding to these educational levels, (which in this case is considered to be the 15 to 34 years age bracket). The general notion that females shy away from technical and vocational types training can be tested by using gender specific vocational education enrolment ratios.

5. Other indicators relating to education

It is possible to construct several other indicators of education which are important for analyses. This would include the amounts spent by the Government on education, as a proportion of total Government expenditure; the share of total expenditure on education, as ratio of the gross national product or expenditure; the proportions of educational expenditure by level of education, by urban and rural sectors or by districts, regions, etc. These indicators on a gender-specific basis, however, may not be both available and necessary. However, in order to get further insights into gender-specific information on aspects such as educational expenditure, the relevant indicators can be supplemented with distribution of students or population by male/female categories, in various institutions, by sectors or districts.

6. Gender-specific health indicators

Among the social indicators, those relating to health conditions are quite prominent. For example, the number of hospital beds per 10,000 persons, the number of doctors per 10,000 persons, the number of nurses and/or attendants per 10,000 persons, and the number of cases treated at out-patient dispensaries are employed as indicators of health. These ratios or percentages are useful to assess adequacy and progress of a country's health facilities. Such indicators are generally computed for the population as a whole and not in terms of males and females. Therefore, if it is considered essential to devise gender-specific indicators relating to such aspects of health, it may be necessary to extract such information from the original records of the health authorities and work out methods of processing such data. Similarly, the data on Government expenditure on health can be used to compute indicators in relation to total government expenditure or gross national product or expenditure etc. Such information is also generally not compiled on a gender-specific basis. Therefore, special attempts will have to be made to relate such expenditure information to male and female categories.

7. People's participation in social and political processes

Social indicators are supposed to reflect the levels of participation and scope for mobility. In view of the socio-political importance of people's participation in general, and the need to encourage female participation in particular, it has become necessary to arrive at appropriate indicators to examine this aspect. For example, it may be important to find out the proportion of people who cast their votes at an election, and this information can be compiled on a gender-specific basis to arrive at male/female participation rates in political processes. The level of participation of males and females in political affairs may be another useful indicator reflecting the status enjoyed by a given sex in such positions as Members of Parliament, Municipal Councils or Village Committees. Similarly, the membership of males or females in various socio-economic organizations or community programmes such as co-operatives, may be useful indicators of participation. Such information is useful for planning and implementation of development programmes, as well as for evaluating the progress in such programmes.

8. Internal and external migration

To formulate another important indicator of social mobility, data on both internal and international migration of a country can be examined. The degree of independence enjoyed by females, their ability and willingness to take risks, as well as other socio-economic factors influencing mobility can be ascertained with indicators relating to migration.

D. Economic indicators

The conventional indicators of progress have been based primarily on economic criteria such that the word 'development' was more or less equated with 'economic growth'. Hence the most basic economic indicators of any country have been national income related measures. For example, per capita income and its rate of growth are employed even today as the main yard-sticks of development. However, these indicators refer to the country and/or population in general, and are not either relevant or significant for specific groups. Hence, the question of computing gender-specific indicators in regard to per capita income, economic growth and such economic variables may not make sense. However, if it is necessary, to isolate the contribution of a particular group in economic activities it is not at all impossible to construct certain indicators. The following list of economic indicators can be considered as basic to any analysis of development issues and wherever necessary or applicable, the gender specific indicators pertaining to those are discussed below.

1. Per capita income

This is the most widely used economic indicator of development and it is based on the relationship between a country's national income and its population. The total income (or output) of a given time period when divided by the total population gives the per capita value. In an analysis pertaining to a particular institution or an arrangement where the per capita values of either sex has to be ascertained, it is possible to compute those by simply dividing the relevant total value by the total number of specific beneficiaries or contributors.

Although the value added by each production sector to the national income is estimated under national accounting, the value added by males or females are not identified separately. Hence, it is virtually impossible to arrive at the contribution of males or females only, to the national economy. Nevertheless, in the discussions on national accounts, an interesting and important issue has been raised regarding the services rendered by females as housewives. As the national income estimates do not capture the production of any goods or services that do not enter the market the value of the various goods and services produced by housewives are overlooked. This results in an underestimation not only of the national output but also of the output of females. Hence, there have been several suggestions aimed at rectifying this pitfall in accounting but there has not been much progress in actual implementation of such suggestions.

2. Rate of growth

This indicator refers to the growth performance of an economy or a sector where the output of all persons engaged in production are added together. Hence, it is not possible to disaggregate it into

gender-specific indicators. The rate of growth measures the change in the national output or income over a time period, usually in percentage terms. It is then possible to compare the increase of production with that of the population in the same period to ascertain whether a given standard of living has been improved or at least maintained. The growth rate of an economy therefore, is an important indicator of welfare applicable to both male and female populations in the country.

It is argued that rate of growth is a necessary condition for improving the standard of living of masses but not a sufficient condition. Therefore, it has to be supplemented with other economic and social indicators. For example, just as much as generation of income is important, its distribution also becomes crucial in evaluating the welfare implications of a given economic growth process. If the mean or average income (in real terms) increases at a noticeable rate, it can be argued that the level of welfare in general would improve; but the actual benefit of such growth to specific groups would depend on the pattern of distribution of incomes.

3. Measures of distributional equity

The statistical measures used in income distribution analysis are of two main types: summary indicators and disaggregated indices. The relatively well known Gini Concentration Ratio is for example, a summary indicator relating to the cumulative distribution of total income among recipient units. Graphically, this ratio is represented in what is known as the Lorenz Curve. The more unequal the distribution, the larger will be the area between the Lorenz Curve and the line of perfect equality (depicted as a 45 degree line through the origin of the graph). The ratio of the two areas, above and below the Lorenz Curve, is what constitutes the Gini Concentration Ratio. Its limits are zero and one, indicating higher inequality as the ratio approaches one and lower level of inequality as the ratio approaches zero. Although, such an analysis often relates to the pattern of income distribution it is possible to employ the same to examine the pattern of any other distribution such as land or wealth. Gini Ratios can be computed for the entire population as well as for any specific group or sector. Accordingly, income distribution data can be analyzed in terms of gender-specific Gini Ratios indicating the pattern of distribution in respect of male and female income receivers.

The most widely used disaggregated indices of income distribution are the relative shares of different income groups. This relates to presentation of income shares either in terms of percentiles, deciles or quintiles. Such presentation enables the comparison of shares of the relatively rich income groups with those of the poorer segments of the population. For example, the ideal share of a given decile must be 10% to ensure perfect equality in distribution while the actual situation often indicates much lower shares than that particularly for those in the poorest four or five deciles. Using decile or quintile shares, it is also possible to compute ratios relating to the highest and lowest income

groups, such as the ratio between top 20% and bottom 40%. These measurements of patterns of income distribution can be adopted to examine data in regard to either all income receivers or male and female income receivers. Accordingly, the degree of concentration of income, pattern of income distribution, extent of relative poverty and differentials among high and low income groups can be ascertained on a gender-specific basis.

4. Labour force participation rate

In view of the importance of labour as a factor of production as well as a source of income, various indicators relating to labour have been devised. The proportion of the economically active population in the total working age population is an indicator of the utilization of human resources in the country. In computing the labour force participation rate, economically active population is divided by the working age population and expressed as a percentage either in regard to the entire population or male and female populations. The general experience in many developing countries is a much lower labour force participation rate for females compared with that for males. An increasing labour force participation rate may not only be a reflection of improvements in economic opportunities but also changes in socio-cultural and value systems.

5. Employment and unemployment rates

Rapid expansion of employment opportunities is a crucial requirement for political and social stability as well as for economic prosperity. Hence, employment rate is considered an extremely important indicator of development. This indicator is calculated as the proportion of employed persons in the total economically active population and expressed in percentage terms. There are several ambiguities and difficulties in defining and assessing 'employment' which makes this task tedious. However, there are standard guidelines provided by international organizations (eg ILO) to facilitate this task and it is important to conform to such standards. Information in regard to employment is normally compiled on the basis of age, sex, education and sectors. Therefore, employment rate is often presented as a gender-specific indicator enabling the comparison of rate of employment of females with that of males as well as overtime periods and in different sectors. It is also customary to compute the unemployment rate indicating the magnitude of unemployment problem in any country, and expressed in percentage terms after dividing the unemployed population by the economically active population. As in the case of employment, information pertaining to unemployment is also compiled in relation to age, sex, education and sectors. This enables the identification of gender-specific unemployment rates as well as certain socio-economic characteristics associated with male and female unemployment.

6. Wage rates of workers

Data on wage rates of workers of different occupational groups are compiled for various purposes. They are useful for estimating earnings of different occupational groups, for negotiations by trade unions as well as for designing social welfare programmes in a country. The wage rate is defined as the average gross money value of wages, paid in cash or kind, in a given occupation or sector, per employed person per day. It refers to the wages actually paid to workers rather than the wages fixed by laws, regulations or collective agreements etc. Often wage rates of workers are compiled separately for male and female workers. In constructing indicators relating to wages it is important to differentiate between money wages and real wages. This is done by using a base year wage rate as equivalent to one-hundred to arrive at the real changes in wages in comparison with the inflation rate. The general observation in many countries in regard to wage rates for females is that they fall behind the wage rates applicable to male in the same industry or service. The basis for such differentials may be economic, social or some other cultural factor which needs to be examined in an analysis of wages.

IV. CRITERIA FOR INDICATOR DEVELOPMENT

It is possible to come up with a long list of demographic, biological, social and economic indicators which should be developed on a gender-specific basis. However, both data and resource constraints may compel us to be selective and choose only a few from a range of possible alternative indicators. As a general guideline for selection of key indicators from an elaborate list of gender-specific indicators, it is possible to suggest that availability and reliability of data on the one hand, and the relevance and significance of information on the other hand, must be employed as criteria. Further, it is also necessary to ensure that the selected indicators would have several basic properties such as comparability over time and across spatial areas as well as sensitivity to change in relation to the gender factors that influence the variables in the formula. Gender-specific indicators in particular have to be developed with a view to identifying and assessing the differences in performance or outcomes pertaining to each sex. It is also prudent to concentrate on a minimum number of key indicators and refine those measures rather than enlarging the list of indicators without any concern for precision.

As mentioned in an earlier section, indicators must be developed according to an acceptable theoretical or logical framework. In other words, the different variables used in the computation of an index, ratio, rate, or percentage must have either a behavioural or functional relationship or at least, a logical association. Similarly, the temporal reference period of an indicator is important in the construction of indicators. Certain variables are more susceptible to change over time so that an appropriate time dimension has to be adopted for compiling

information. The selection of the base year for comparison, as well as the frequency of compiling information are important considerations in the construction of indicators.

The spatial area covered by various statistical estimates can vary. While Census data cover the entire country, a sample survey may be limited to certain regions or sectors. The appropriateness of the sample design and adequacy of the sample size would influence the accuracy of the estimates. Sometimes, the purpose of an indicator may be to reveal gender-specific differences in regard to various regions or sectors of a country. In such context, the spatial areas covered must be representative enough to warrant such comparison.

As mentioned above, the degree of accuracy of data is positively related to the coverage of information. It is obvious that Census data have a complete coverage of information pertaining to the entire country or population as opposed to sample surveys. However, advanced statistical theory offers techniques of sampling which are capable of minimizing errors and maximizing accuracy of estimates. Therefore, it is vital to ensure that such techniques are employed in sample surveys to compensate for their limited coverage. Nevertheless, it is always important to mention the source of information and the basis of data when presenting an indicator.

The validity and comparability of an indicator would also depend on the clarity of concepts that are employed in its construction. An ambiguous, precise, identifiable and quantifiable concept improves the accuracy of information as well as the usefulness of an indicator. It is also important to briefly define and clarify the concepts embodied in the construction of an indicator. Various UN agencies and other international organizations have prepared standard definitions and measurements for compilation of data and computation of indicators. Such guidelines must be adhered to as far as possible when developing gender-specific development indicators as well.

Methodology for Deriving Indicators

In an attempt to derive gender-specific indicators an initial step must be taken to examine the general indicators available for the population of the country as a whole.

This would give an insight into the possibility and desirability of disaggregating information by sex in order to arrive at gender-specific indicators. While it is difficult to identify a single methodology for deriving indicators, it is possible to generalize that any indicator must be constructed to convey a meaningful relationship between two or more variables, be them of time, space, values or measurements. In selecting appropriate variables which would depict a particular relationship, the

historical or theoretical observations and assumptions should be examined. For example, a relationship may exist between different socio-economic variables and male-female status. Similarly, a relationship may exist between geographic or climatic zones and male-female behaviours or characteristics. It is also possible to conceive of a relationship between different time periods and certain socio-economic behaviour of different sex. Therefore, it is important to recognize that several indicators address different dimensions of male-female status so that there can be interrelations between indicators as well. Hence, the methodology should enable the co-relation of different indicators to ascertain the intensity of interacting variables, and should also enable analysis of clusters of indicators. Finally, the methodology for deriving indicators must lend itself for analytical interpretation of the information revealed by gender-specific indicators.

V. LIMITATIONS AND MISUSES OF INDICATORS

While indicators are useful to obtain insights, assess trends and make projections regarding various demographic, biological, social, economic and other aspects of development, they are subject to certain limitations. Although specific limitations of any given indicator will have to be examined separately and independently of others, it is possible to make some general remarks regarding the limitations of indicators. As stated at the outset of this discussion, indicators are summarised versions of detailed information on certain conditions and behaviours. A summary always runs the risk of not being able to tell everything with adequate emphasis on all important aspects. Therefore, an indicator may convey a too simplistic message of a complex and complicated situation. Hence, it is crucial to examine further details in regard to the variables involved in an indicator before making conclusive interpretations and judgements. This is particularly important when using indicators for socio-economic analyses where human behaviour is the subject of discussion.

Another limitation of indicators is their bias for quantitative information as opposed to qualitative characteristics of a situation. In socio-economic analysis in particular, qualitative assessments become important (which may sometimes be labelled as value judgements). Every observable change in a system or a variable may not necessarily be quantifiable and this constraint imposes a limitation on construction of indicators. For this reason, many indicators of development have concentrated on physical and financial aspects than on the elements of ultimate human well-being. However, interesting initiatives have been taken to construct "perception indicators" aimed at measuring the level of satisfaction or the subjective evaluation of respondents towards self-selected aspects of well-being corresponding to the dimension of socio-economic progress to be evaluated. Until such a series of qualitative indicators are fully developed and generally accepted, it is important to bear in mind the limitations of quantitative indicators.

As indicators are often expressed in terms of ratios, rates, percentages or coefficients relating to a selected number of variables, they obviously leave out certain other variables which may also be important. Therefore, a single indicator may not be a true reflection of a given situation or changes over time. This limitation in using indicators could be overcome by employing either supplementary or alternative indicators relating to the subject. It is also necessary to examine the relationship between several indicators by conducting certain statistical exercises such as co-relation analysis.

Significant progress has been made in recent years, in regard¹ to the use of single indicators to construct composite indicators or conduct further statistical analysis. Interrelations between different indicators such as demographic and biological, demographic and social, demographic and economic and economic and social make it essential to conduct further statistical analyses using different types of indicators to overcome the limitations of individual indicators.

Certain limitations of indicators arise from problems of measurement of variables, inadequate coverage of data collection, ambiguities of definition of concepts and deficiencies in the unit of analysis. Remedies to such limitations have to be found in refining and perfecting the indicators rather than generating new indicators. Hence, priority should be given to improving the quality of data and methodology of construction of a selected minimum set of indicators.

Turning to the misuse of indicators it must be emphasized that deliberate misuse of any indicator should not be allowed or tolerated. However, there can be misuses arising from lack of understanding about the given indicator or exaggeration of the scope and validity of an indicator. Sometimes unwarranted inferences are drawn from indicators by interpreting the information conveyed in a broader manner than what is implied by the indicators. Therefore, careful interpretation of an indicator is as important as its accurate construction. For this purpose, it is necessary to examine closely the definitions of concepts, units of measurement and the values of outcome relating to any indicator before interpreting its results otherwise, even a properly developed and an accurately computed indicator may run the risk of being interpreted wrongly or inappropriately.

Another possible misuse of indicators is making judgements regarding micro level situations on the basis of macro level information or vice versa. While it is possible to use macro level indicators to generalise micro level conditions as well as to use macro level indicators to deduce on micro level situations, this would require the employment of appropriate statistical and analytical methods. Hence, such inferences should not be made merely by looking at a given indicator.

One of the main uses of indicators is to make projections or work out the likely future scenarios. However, in making long term projections, using narrow and limited indicators, the degree of inaccuracy of estimation might exceed tolerable limits. Therefore, before long term projections are made on the basis of a given indicator, it is important to ascertain that the indicator has been computed on the basis of an adequate number of observations and using appropriate methods of measurements etc.

Finally, as anything else, indicators can also be employed by the user to his/her advantage. Therefore, the selection or and interpretation of indicators can be done in such a way to either support or challenge a particular hypothesis or a theory which one may wish to establish or refute. Hence, the misuse of indicators depends more on the kind of user than on the limitations of indicator.

ANNEX III

DATA NEEDS FOR GENDER SPECIFIC SOCIAL AND ECONOMIC INDICATORS

by

Swarna Jayaweera

I. INTRODUCTION

A significant development during the United Nations Decade for Women was the increase in focus on identifying gender-specific data as a base for developing appropriate indicators on the economic and social situation of women. A major concern in research evaluation in many countries has been the inadequacy of such data and gender bias in some of the available data. It is necessary, therefore, to examine the situation in Sri Lanka in the context of a conceptual framework for construction of indicators that are relevant to the rights, responsibilities and multiple roles of women.

II. DETERMINANTS OF DATA NEEDS

It is useful at the outset to identify the purposes for which gender-specific data and indicators are required. In view of the assumptions and stereotypes that prevail in respect of the status and roles of women, it is necessary to seek data that reflect accurately the realities of the social and economic situation of women. Such data are essential as an appropriate basis for developing indicators that will assess effectively women's productive and reproductive roles, their contribution to the family and national development and their constraints. In the context of the need to promote gender equality and human rights it is further necessary that data generated will facilitate both the identification of disparities between men and women in access to resources and services and in the gender or sexual division of labour within and outside the household, as well as the analysis of reasons for such differences.

From the perspective of policy formulation, planning and evaluation it is apparent that development programmes have already had a differential impact on men and women and have not achieved expected outcomes where the data base for planning has not reflected the real position of women^{1/}. It has been noted that exclusive focus on indicators pertaining to the reproductive role of women, giving low priority to their productive roles particularly in the informal sector, have stymied the potential contribution of women and jeopardized the success of economic development programmes.

The status of women is apt to be perceived erroneously as a static and unidimensional concept. On the contrary, gender-specific data have to be continuously processed to monitor change, in particular, progress in the reduction of disparities and the impact of macro-economic and social policies, as well as the international economic relations on women and their families.

It is also important to note that there is considerable-diversity in the needs of data users, such as policy makers and planners, programme implementation and monitoring units, researchers and women's organizations and other pressure groups who operate as catalysts of change.

III. RELEVANT INDICATORS AND DATA NEEDS

As indicators need to measure or assess the multifaceted situation of women, data needs encompass many areas of human activity and rights and take into account the interactions between external pressures and societal norms, and family and individual behaviour. The subjects on which data are needed are identified as follows:

- (a) Demographic data pertaining to fertility and mortality, marriage and divorce including the age at marriage; and internal and external migration patterns of males and females.
- (b) Information relating to age-specific literacy, enrolment and retention rates, attendance, attainment in education, and to the ideological area of the content of education, gender role stereotypes and the attitudinal domain.
- (c) Data required for assessment of health status such as mortality, life expectancy, morbidity, nutritional standards and the provision and utilization of services;
- (d) The data base for assessing the economic status of women - their access to economic resources, their economic activities within and outside the household, the extent of their occupational segregation in industries, their representation in the hierarchical levels of employment, unemployment, productivity, income and savings;
- (e) As the family is the basic unit in society, data necessary to ascertain the position of women in the family, such as the allocation and control of resources, division of labour within and outside the family, intra-familial relationships, and women's contribution to the family;
- (f) Information relating to the legal status of women, their political behaviour and community participation.

In a plural society and developing economy as in Sri Lanka this data has to have three dimensions - gender, class, ethnicity, district and time. The last is crucial to monitor changes in response to developments, such as in social policies, the "open economy", land settlements, "female-led industrialization", and female migrant labour.

IV. AVAILABILITY AND ACCESSIBILITY OF DATA

It is intended here to review some of the gender-specific data in major sources in Sri Lanka in order to identify lacunae and to focus attention on the need to develop strategies to fill these gaps. These sources are:

- a) National Census Surveys conducted every ten years;²
- b) Consumer Finances and Socio-economic Surveys of the Central Bank³ (sample surveys). The interval between these surveys has declined from ten years to five years and then to three years;
- c) Household Economic Activities Survey 1984-85 (sample surveys) - by the Census Department;⁴
- d) Other Census sample surveys such as the Census of Industry and Agriculture;⁵
- e) Annual data analyses such as School Courses by the Ministry of Education, Employment Surveys by the Department of Labour, Health Bulletins by the Ministry of Health and Administrative records by Ministries and Departments including vital statistics and land and business registration.⁶

A number of studies and small sample surveys by government and non-government institutions and individual researchers offer valuable insights to data needs for the development of indicators although they lack adequate coverage for national applicability. There is also a distinction between availability in respect of data collection and accessibility through data presentation.

Demographic data are readily available in all surveys. These pertain to the distribution of population by age, sex, marital status, district and ethnic and religious groups and statistics of births, marriages and deaths. The Consumer Finances and Socio-economic Surveys provide information on the age at marriage of females, and both this survey and the recent sample survey of female employees in the public sector⁷ include data on fertility. Special surveys have also examined other aspects of fertility and mortality⁸.

A deficient area, however, is in migration data. Statistics relating to internal migration are given in census reports and Consumer

Finances and Socio-economic Surveys (CFSE) without gender breakdown. Despite the visible exodus of skilled and unskilled workers for employment overseas, relevant data have yet to be included in national or large surveys. Special sample surveys on overseas migration have been carried out by the Manpower and Employment Division of the Ministry of Plan Implementation and gender differentiated data are available in these studies⁹. Nevertheless in view of the fact that male migration changes women's roles in the family and that female migration has, inter-alia, increased the resources of women and their contribution to the family and economy, data from national and large household surveys are needed to ~~examine~~ the impact of such migration on the quality of life.

While age-specific and gender-wise statistics on literacy and educational attainment and participation are available in Census reports, data on enrolment and retention are relatively incomplete in most sources. The wealth of gender wise data on schools, student enrolment, attendance, repetition and teachers generated by the annual school census conducted by the Ministry of Education are never made available to the public. A recent very useful Ministry of Education publication on indicators and projections provide data on age-specific enrolment, repetition, drop-out and transition rates, examination performance and educational expenditure but with no gender breakdown although gender-specific data are usually collected.¹⁰ The presentation of gender specific data in the CFSE survey reports have improved vastly over the last decade, but even the most recent report in 1981/82 presents "school avoidance" data without disaggregation by sex. As educational attainment statistics are given for both sexes in this report, it is likely that the data is available but not made accessible. An important area in which gender specific and district based information has not been made available is the retention in or dropping out of school, and reasons for non-enrolment and dropping out. Small sample surveys conducted by several different agencies have indicated the magnitude of the problem in pockets of the economically disadvantaged.¹¹ Reliance on national level indicators without adequate information on the incidence of early withdrawal from the school and under-achievement of educational goals is likely to present a misleading picture and distort educational planning.

Enrolment in educational institutions is an indicator of skill development. While the gender gap has always been widest in vocational education, it is precisely in this field that there is least access to gender-specific data. Ministries, departments and institutions engaged in vocational training often do not disaggregate enrolment data by sex, and in some instances records are so poorly maintained that the search for data is a time consuming process. There has been considerable improvement, however, in data analysis and presentation during the last decade, and the University Grants Commission¹² (with some gaps in

output and staff), the Technical Institutes and the National Apprenticeship Board have readily available data, published or unpublished in their offices. Other Ministries and Departments conducting training programmes have yet to develop a data collection and analysis system that will facilitate access to data by planners, programmers, researchers and evaluators as well as by national level data processing units.

Two areas that are of great relevance to the social and economic situation of women, in the context of the role of education as an agent of cultural reproduction and socio-economic mobility, are the type and content of education offered to students; and aspirations for and attitudes to education. Gender-based curriculum diversification in secondary schools, gender role stereotypes in educational materials, subjects and vocational choices and teachers' perceptions may affect the outcome of education, and aspirations and attitudes point to the social and economic demand factors. There has as yet been no significant progress in the availability of such data for users.

Health indicators are assumed to be relatively well developed and readily available in Sri Lanka. Household surveys, special surveys and Ministry of Health statistics have provided data for indicators of health status such as: infant, child and maternal mortality; life expectancy; nutritional status; morbidity; and prevalence and types of disabilities. Nevertheless, inadequacies are reported to exist in the data collection process at the district level while official statistics are most often not disaggregated. The island wide survey of the Food and Nutrition Policy Planning Division of the Ministry of Plan Implementation has provided data for indicators of the nutritional status of pre-school age children,¹³ but there is no gender breakdown in the data presented. The Census-UNICEF study of peri-natal and neo-natal mortality has identified indicators of vulnerability in families and in mothers¹⁴. The fillip given in recent years by international agencies to primary health care and child survival and development strategies has implications for monitoring the impact of such programmes on the health status of women and on the provision and utilization of services.

Another indicator derived from incomplete data is unemployment status. It is clear from the definition of unemployment in the Census Report that there has been gender discrimination in the identification of 'discouraged workers' or those not seeking work because they thought work was not available: women in this category have been excluded from unemployment data category and have been classified as 'housewives'. Nor does the computation of the unemployed distinguish between sons and daughters in households. If the real situation were reflected in the statistics the difference between male and female unemployment rates would be even wider than it is at present.

Occupational segregation is characteristic of the labour market with its culturally demarcated masculine and feminine areas. Statistics of men and women engaged in specific industries and occupations are available in census reports and in the employment survey of the Department of Labour to substantiate the prevalence of the concept of gender appropriate jobs. Much of the data in the CFSE survey reports with respect to economic activities, and even age specific activity rates and employment status have not been disaggregated by sex. It is unfortunate that despite the fact the data have been collected for both sexes the Census of Industry of 1983 and annual surveys of industries have presented statistics of 'persons' engaged in industries without disaggregating by sex.

An important indicator of the economic situation of women would be their access to and control of economic resources. Both the CFSE survey report and the Census Department's Household Survey of the self-employed provide detailed information on assets such as land, houses, equipment, income, savings and investments but ownership is classified by households and not by individuals. There is need for gender-specific data that will make it possible to examine differential access to resources and economic independence as a measure of the economic status of women. It is not uncommon for men to own the land and women to farm it, while men are engaged in other occupations, and for resourceless women to be destitute in the event of marital conflict separation.

The household - defined as a group of persons with common cooking arrangements - is used as the unit of data collection and analysis in large scale surveys, and the family, though the primary unit, is subsumed in the household. The head of the household is usually the male, except in households of unmarried single women or of single women as parents.

The economic and social situation of women however is closely associated with their position in the family, which in turn is largely dependent on a number of factors such as the allocation of resources and labour within the family, contribution to family income and control over resources, participation in decision-making, family socialization and practices such as marriage and dowry. The family has been outside the scope of household surveys but it is possible that data pertaining to some of these facts, such as allocation of resources, aspirations, marriage and dowry and other social practices may be suited to quantitative analysis.

The legal status of women and their participation in political and community activities have been the subject of special studies. While it is possible to develop indicators of women's rights, there are gaps in information relating to voting behaviour (whether women voted or not) and in centrally available data with regard to community participation.

Within the general population there are also subgroups whose situation has also to be assessed by the same or similar indicators. Data analysis and presentation with regard to such groups (e.g. ethnic, income levels) is apt to be confined to basic indicators such as education, and when they are available in employment related areas, they are not disaggregated by sex. Therefore it may be necessary to develop special indicators to examine the situation of specific groups of women or of the impact of national programmes or international labour trends. Examples are settlers, factory workers in the Free Trade Zones, migrant workers, domestic 'servants' and prostitutes.

IV. DATA NEEDS - CONCEPTUAL ISSUES

Lacunae in data for social and economic indicators have been seen in the foregoing review to be of two kinds:

- (a) lack of disaggregated data by sex in statistical publications and records, and
- (b) omission of data that are of crucial importance to the construction of indicators or to supplementary indicators.

As these gaps are often the outcome of gender role assumptions it is necessary to identify these conceptual issues with a view to promoting new perspectives and changes.

It is likely that the absence data that are disaggregated by sex and consequently gender-specific indicators in key survey reports and administrative records, despite the fact that data are often collected by sex among other variables, is the result of low priority given to gender issues or of the lack of awareness of the role and contribution of women. It is useful in this context to identify misconceptions that affect data collection and analysis.

- (1) A common assumption is that of dichotomous roles of men and women in production and reproduction. In traditional society in Sri Lanka, men and women worked together in the fields and there was no rigid separation of 'public' and 'private' domains and no exclusive 'domestication' of women as in Western industrial societies¹⁵. Perceptions of the economic activities of women have been coloured, however, by these norms transplanted through colonial ideology and Western development models. The stereotype of man as the sole 'breadwinner' and woman the sole 'housemaker' is hardly tenable in a country in which only a very small number of families have adequate resources to dispense with women's labour inputs.

(2) A second assumption is that of women as secondary or supplementary earners. The CFSE survey report, in fact uses the term 'supplementary earner' whereas in-depth studies have shown that women very often make an equal contribution with men to the family income or are, particularly in low income groups, primary or even sole income earners.

The exclusion of women 'discouraged workers' from the unemployed population computed in the national Census survey of 1981/82 and their incorporation in the exclusively housework group illustrates this conceptual limitation.

"....However, only males in this category were included as unemployed because any adult male, who is not employed nor is a student, nor is unable to work should be regarded as available for work unless he has a private income or does not want to work for some reason or other. In the case of females engaged in own house work and not seeking employment, the reason 'thinks work not available' for not seeking work is considered here as an insufficient indicator of their availability for work. This response is more likely to result from a state of indecision rather than a definite need or desire for employment... There are also many females who think they would like to work provided a convenient and suitable job can be found. The inclusion of such females who are not actively seeking work can inflate the unemployed and high unemployment rate is then due not only to the state of the economy but also to the changing social conditions and aspirations"¹⁶

(Emphasis is that of the writer)

It is apparent that women's economic role is undervalued and that women are perceived to be naturally prone to 'indecision' (a sexist statement). It is also clear that 'changing social conditions and aspirations' are discounted as factors that may influence work patterns and life styles. These assumptions are inevitably interrelated with concepts on which definitions of economic activity and employment and unemployment are based in official literature.

In all economically developing societies, the use of the definition of economic activity as 'gainful employment' was borrowed from Western industrial societies. The definition used in the Sri Lankan survey was work for 'pay, profit or family gain'. 'Unpaid family workers' were those who worked on a family farm or business without remuneration. Only the primary or main activity was considered and housework was usually perceived to be the main activity of women even if they were engaged in informal economic activities. Women tended to conceptualize themselves as housewives, though they were involved in agriculture or home-based production. Often conceptually the man was the 'own account worker' and

the woman the 'unpaid family worker', even if the work was equally shared. Hence women's economic activities in the informal sector were largely uncounted in labour force statistics and ignored in computing employment and unemployment rates. Studies elsewhere have shown that women's contribution to the family income was 55% in some African Countries¹⁷ and 50% in Nepal when the non-monetized sector of the economy was included¹⁸. Studies in Sri Lanka have shown that while farm women declared themselves to be housewives in household survey schedules, they were found to spend five to five and a half hours a day on cultivating their fields¹⁹.

In 1982, in response to considerable criticism of these concepts during the UN Decade for Women, the international definition of economic activity was extended to include production of primary and secondary goods for the market, barter or consumption. The Sri Lanka Household Economic Activities Survey in 1984/85 has also used this expanded definition in its sample survey of self-employed workers and it is likely that future census surveys may present a more realistic representation of women in the economy. It is interesting to note that an attempt was made in the Central Bank's study on the Determinants of Labour Force Participation in 1973²⁰ to include housewives in the labour force. This effort may have been influenced by the Eurocentric 'domestic labour' debate during the 1970's in the West. The debate, however, ignored the subsistence economy and production outside the formal sector and thus made no significant change in concepts and definitions.

Another assumption that has narrowed the data base is the concept of patriarchal and universal male head of household. In theory the head of the household is self nominated or designated by members of the family as the breadwinner or the figure of authority. Married women are rarely identified as heads of households even when they are primary or sole income earners and decision-makers, and female headed households are assumed to be those of single parents (women) or single women. The concept 'head of household' is applied widely in channelling inputs and services. It is assumed that the household is a harmonious, cohesive unit and that benefits accrued or received spread equally from the male head to all members. Studies have, however, shown that there are inequalities in the allocation of resources and supply of labour in some households, and men and women need therefore to be addressed as autonomous individuals in data collection in household surveys. EEC countries are reported to be using the concept of a 'reference member of the household' in surveys in order to better reflect reality²¹.

V. DATA NEEDS - METHODOLOGICAL ISSUES

Methodological issues have surfaced with the identification of data needs. While disaggregated analysis of data that is already available or is regularly collected is an administrative decision, meeting new data needs, requires formulation of strategies for expanding the scope of data

collection and analysis. National and large household surveys may not be the most appropriate mechanism for addressing all the data needs that have been identified or that are envisaged; but it may be useful to explore during the sessions possibilities for enlarging the national data base and improving indicators where practicable.

The gaps identified range from data that have hitherto not been perceived to be important but can be made accessible with relative ease to in-depth qualitative data.

VI. SOME AREAS FOR ADDITIONAL GENDER-WISE DISTRICT-BASED DATA COLLECTION/REVISION OF INDICATORS/CONSTRUCTION OF INDICATORS - AN OVERVIEW

Incidence of

1. Migration, internal and external, by sex
2.
 - (i) Retention in educational institutions
 - (ii) Educational achievement
 - (iii) Subject and course choice
 - (iv) Enrolment in vocational courses
 - (v) Educational aspirations
 - (vi) Vocational preferences
 - (vii) Attitude to education
 - (viii) Enrolment in non-formal education programmes (5-14 years)
 - (ix) Gender role stereotypes
3.
 - (i) Birth weight
 - (ii) Nutritional status (5-11 years)
 - (iii) Nutrient intake
 - (iv) Incidence of illness by sex
 - (v) Immunization
 - (vi) Maternity leave (private sector - large, small)
 - (vii) Attitude to water and sanitation
4.
 - (i) Economic activity in the informal sector
 - (ii) Incidence of female unemployment by sector and industry
 - (iii) Contribution of women to GDP
 - (iv) Ownership of assets by sex
 - (v) Income by sex and economic activity
 - (vi) Access to credit
 - (vii) Access to social security
 - (viii) Attitudes to women's participation in economic activities
5.
 - (i) Family structure
 - (ii) Head of household by sex and income
 - (iii) Division of labour in the household

- (iv) Child care arrangements
 - (v) Decision making with respect to family budget, children, investments
 - (vi) Contribution to family income
 - (vii) Savings and investments
 - (viii) Marriage patterns
 - (ix) Dowry practice
 - (x) Incidence of domestic violence
6. (i) Operation of laws
- (ii) Incidence of prostitution
 - (iii) Incidence of rape
 - (iv) Voting behaviour
 - (v) Leadership roles in community
7. Group differentials
8. Indicators for impact studies of economic development programmes on men and women.

It is possible that areas such as migration, early leaving, enrolment, aspirations, economic resources, economic activities within and outside the household, economic contribution of women, women's legal rights in operation, social practices can be investigated using quantitative techniques. Time use studies will undoubtedly be necessary to present accurately the division of labour and the performance of the productive and reproductive roles of women²². Special small surveys, content analysis, anthropological studies, ethnographic studies of communities and case studies will provide qualitative data and new insights. Such studies are too limited in coverage for generalization. It may however be possible to use in-depth survey data and qualitative data to identify appropriate indicators and to evolve methodologies within a conceptual framework that is based on reality and promotes equity and social justice.

1. (a) Esther Boserup, Women's Role in Economic Development, George Allen and Unwin, London (1970)
- (b) Irene Tinker, The Adverse Impact of Development of Women, in Women and World Development, ed. by Irene Tinker and Michele Bo Branisen, Overseas Development Council USA (1976).
- (c) Swarna Jayaweera, Integration of Women in Development Planning, in UN Decade for Women: Progress and Achievements of Women in Sri Lanka, Centre for Women's Research (CENWOR), Sri Lanka (1985)
2. Census of Population, Department of Census and Statistics, Sri Lanka. The most recent were in 1971 and 1981.
3. Consumer finances and Socio-economic Survey, Central Bank of Ceylon, 1953, 1963, 1973, 1978/79, 1981/82.
4. Survey of Household Economic Activities (1984/85). Preliminary and Second Reports. Department of Census and Statistics, Sri Lanka.
5. Census of Industry, 1983, Annual Survey of Industry, Department of Census and Statistics, Sri Lanka.
6. For example:
 - (a) Employment Survey, Department of Labour (annual)
 - (b) School Census, Ministry of Education (annual)
 - (c) Annual Health Bulletin, Ministry of Health
7. Demographic Sample Survey of Female Employees in Public Sector (1987), Department of Census and Statistics and Women's Bureau of Sri Lanka, Ministry of Women's Affairs and Teaching Hospitals.
8. World Fertility Survey, 1974
9. R.B.M. Korale, Migration for Employment to the Middle East, and other related studies, Employment and Manpower Planning Division, Ministry of Plan Implementation.
10. D. Guneratne et al, Some Indicators and Projections Relevant to First and Second Level General Education, Sri Lanka, Ministry of Education, Sri Lanka.
11. For example, report on Baseline Survey on the Educational Needs of non-school going children among low income groups in the city of Colombo (1984). Non-formal Education Branch Ministry of Education and UNICEF.

12. Statistical Handbook 1982, 1983, 1984, Division of Planning and Research, University Grants Commission, Colombo.
13. Nutritional Status and its Determinants and Intervention Programmes, Final Report. Food and Nutrition Policy Planning Division, Ministry of Plan Implementation, Colombo.
14. Peri-natal and Neo-natal Mortality (1986), Dept. of Census and Statistics and UNICEF.
15. Barbara Rogers, the Domestication of Women, Tavistock Publications, London (1980)
16. Census of Population. The Economically Active Population (1981), Department of Census and Statistics, Sri Lanka.
17. Esther Boserup, op. cit.
18. Lynn Bennet and Meena Acharya, the Status of Women in Nepal, Vol. II, part 9, Centre for Economic Development and Administration, Tribhuwan University, Kathmandu, Nepal 1980.
19. Women's Work and Family Strategies, Centre for Women's Research, (CENWOR), Sri Lanka, (1987) Unpublished.
20. Improving Statistics and Indicators on Women Using Household Surveys. United Nations International Research and Training Institute for the Advancement of Women (INSTRAW) 1986.
22. Ruth Dixon Mueller, Women's Work in Third World Agriculture, ILO Geneva. (1985).

ANNEX IV

PROBLEMS OF DATA UTILIZATION FOR CONSTRUCTION OF INDICATORS

by

L. H. Lewis

I. INTRODUCTION

It is useful to describe the many and varied phenomena that comprise our world in numeric or quantitative expressions. These expressions enable us to grasp and recognize complex ideas relatively easily and to understand how the structures and composition of societies are changing. It is the ability to present these numeric representations of real phenomena that is the skill of the statistician. The statistician uses statistics to transform complex realities into meaningful and useful statistics. But not all statistics are equal in value and not all potentially useful statistics are ever compiled.

As a starting point in trying to understand what an ideal statistical system would produce, and its relevance to this workshop, we might review some of the principal sources of data, which have already been touched upon in earlier sessions. Each of these sources has particular strengths and weaknesses, that will ensure its suitability for some purpose but, at the same time, limit its usefulness for all purposes.

II. SOURCES OF DATA

A. Population Censuses

A census entails an enumeration of the entire population, and thus very useful in providing comprehensive geographic data and for detailed cross-tabulations, which are minimally constrained by problems associated with small size. It is consequently very feasible to use sex as standard variable for all cross-tabulations.

The census, serves a most important function of providing benchmark data from which to measure change. However, it is not conducted sufficiently frequently to enable users to monitor changes over short periods. It is also rather limited in its scope, since the high cost and extensive coverage places severe restrictions on what is possible to collect.

B. Sample Surveys

The great strength of surveys is their flexibility which makes it possible to include many topics and undertake in-depth inquiries into areas of special social concern.

Some limitations exist, however, especially those related to scale. Surveys are subject to random and sampling errors, which are functions of size and thus restrict the use of extensive geographic breakdowns and topical detail. The very flexibility of sample surveys affects their comparability; variations in approaches, definitions, reference periods and topics covered, from one survey to the other, often make long term comparisons and thus monitoring difficult.

C. Service Statistics

Service statistics have the distinct advantage that they are established to provide management feedback during project implementation. They provide continuous measurement, though restricted in scope. The disadvantage is that rarely are these data available nationwide and, where they are, often of inconsistent quality.

D. Administrative Records

Administrative records share many of both strengths and weaknesses of data from other sources. They can provide complete coverage, can be extensive in scope and be produced on a continuous basis. The principal disadvantage is that they are often not established or collected primarily to provide statistics, but perhaps to administer a particular programme such as trade, health, taxation; are thus poorly conceptualized and inadequately organized for statistical purposes and may not in fact be utilized in the statistical system.

III. ACCESS TO AND AVAILABILITY OF DATA

It is worth stressing once again, that each of these different sources of statistics have high potential value - and a complete statistical service must exploit them all. Since we are concerned with statistics relating to the economic situation of women, it is necessary to ask, in this context, what kinds of information are potentially provided from each source, what kind of access is provided to potentially useful statistics, and how effectively are they used.

Many fora covering statistics relating to women in development have emphasized the importance of the census as a primary source of data, and as a basis for deriving statistical indicators. The particular strengths of the census have already been highlighted. But for many purposes, the population census is not the most useful source. The greater frequency and flexibility of sample surveys, and the relatively lower costs make them more useful for providing inputs to the various social indicators that will be used in planning programmes monitoring and evaluating programmes for women's participation in the development process.

Censuses and surveys have in common their total emphasis on providing statistics. Where these are conducted by the national statistical office, they usually provide data for the entire country and permit some disaggregation by geographic areas and, depending on size, in the case of sample surveys, various background variables included on the schedule. It is important for this workshop to understand how to exploit these statistical sources for their own purposes.

When the national statistical office plans a statistical operation, it includes in its work plan, provision for discussion with users about the topics to be investigated and about the tabulations to be produced. As a consequence of these discussions tabulation and report plans are prepared. The tabulations contain a range of useful statistical tables; the reports contain the most important of these and provide in addition useful background information.

Thus for users not involved in the detailed planning of the statistical operation, there are these two sources of statistical data. Many of the needs of users will be met by the reports themselves; other needs will be met by available unpublished tables.

If this were all the data available, perhaps little would be accomplished through further discussion. But there are other sources. Government statisticians are usually prepared to provide on request additional tables, often free of cost, to meet specific but important needs. To exploit this resort, users need to be very familiar with the content of schedules, and the way in which data are held on computer tapes.

Perhaps even more useful, at least potentially, is the means to access computer records to provide information exactly in the format required. Assuming some basic understanding of computer technologies, there are a number of ways by which this can be accomplished.

An increasing number of statistical offices provide summary tapes or diskettes to selected users. These tapes are of various kinds and are able to meet a number of needs. Their importance is that they permit a very wide range of tables to be produced by the user, very speedily, given good access to a computer, and at relatively low cost. It is not necessary to purchase summary tapes or even for the users to have a computer. Where the user has a computer, compatible with that on which the census or survey data are stored, it is possible to download or read data from one computer system to another. At other times however, the national statistical office may provide a computer terminal from which the user has direct access to statistical records.

An important consideration from the viewpoint of the national statistics office is that the confidentiality provisions that protect the census or survey respondent are properly enforced. Thus in every single case information that would enable an individual respondent to be easily

identified by the user is suppressed. This clearly includes name and address, but where the numbers included in any statistical cell are few, the policy is usually to suppress the information. By and large, for this reason only summary level statistics are available on tape, such as at the provincial or regional levels.

All these options are available and the lack of knowledge of how to proceed to access data, or to interpret what is on the schedule and how data are formatted on computer files, contribute to a situation in which existing data are very seriously underutilized. So true is this situation that in many countries the value of undertaking large and expensive surveys is questioned in view of the inability of users to fully utilize existing data. I would suggest that this workshop would do well to consider at length ways in which it could be encouraged and facilitated to make far greater use of existing data bases.

Assuming now that full use is made of existing data a legitimate question is how needs of users, say for information on the situation of women, can be properly considered in the design of a census or survey. Unfortunately the process is complex. The Government Statistician is often inundated with requests, and is obliged to assign priorities and to determine which topics are best handled through the census or survey mechanisms.

To determine priorities, the statistician needs to remain objective. The mere statement that a topic is important is not sufficient. There needs to be greater supporting evidence. The task of producing evidence, for example that more information on the status of women is needed, entails a frustrating circularity. The statistician will say, somewhat defensively, that he or she can only be convinced that the need is highly important, if activities are already planned in the national development programme. For, reasonably enough, statistics for development planning provide the most basic demand on the national statistical service. The demand for statistics for the overall national plan and the various sectorial plans are paramount in determining the scope of topics to be investigated.

Without statistics, users or potential users would say, how can governments be convinced of the potential importance of particular policies and the potential impact of special programs. The answers may not be easy to find. It will depend on an ability to use information from other countries, to encourage micro studies at universities and in other institutions; it will require the need to set up pilot projects to test hypotheses about what might be achieved. Only after these processes have been carried out might there be a legitimate claim on the government, to accord higher priority to an issue and on the statistician to include special topics to meet specific user needs, at the expense of others, in statistical censuses and surveys.

This paper is concerned primarily with the formal statistics produced from official censuses and surveys. But a little attention is also needed to reflect on how various administrative records have been under-utilized and to ask how these too might be strengthened and communication channels improved to provide a more useful statistical service. This too is an important topic that the workshop may wish to address.

IV. PROBLEMS IN CLASSIFYING ACTIVITIES IN THE INFORMAL ECONOMIC SECTOR

To enable statistics of economic activity or any other statistics for that matter to be easily understood, it is necessary that the various activities be grouped as part of a systematic classification. The fewer the groups, as a rule, the easier it is to use statistics to understand the general situation; the more specific and professional the need, the more comprehensive or detailed the classification should be.

A great deal of literature has been written and time spent discussing the various classifications used to measure the economic activities of women, especially in the informal sector.

As some of these have already been touched upon in earlier sessions, this paper will briefly review the more important systems of economic classification in an attempt to highlight why it is that they do less than full justice to the economic contribution made by women.

A. Household Activities and the SNA

Employment is considered as the labour input to producing the national product. The sort of goods and services to be included in or excluded from the national product are specified in what is known as the System of National Accounts (SNA)

The usual practice in SNA is to exclude such services as cooking, firewood collection and water carrying (which are regarded as further processing of goods and services bought with final consumption expenditure or produced for final consumption and are thus thought to be outside the production boundary). Of course the actual value or cost of goods and services bought for final consumption purposes, including the use of servants, are included for they form part of production.

Most production takes place at the workplace or establishment and therefore is easy to include within the economic production system. Other activities, especially those outside of the work establishment are more difficult to deal with, and can lead to anomalies. Where sales take place, it is usually straightforward to include even household activities as part of industry production. But often sales do not occur and the household production is carried out for own consumption and treatment is less uniform.

Most often national decisions about inclusion or exclusion depends on their significance to the economy. Thus the SNA recommends that the construction of dwellings should be included because it is significant; own account production for own use is recommended where it is significant, but omitted where it is only a minor source of supply. It is generally recognized that where commodities are sold but are also produced for own consumption, all production should be included, as should the value added for further processing of primary commodities (e.g. cheese making).

These boundaries to final consumption production are far from clear. Further inconsistencies are introduced when exchange is considered. While, for example, domestic services by the household member are generally not included, household services provided to other households would be, and would be valued at the prevailing wage rates. But where own account production is neither sold nor exchanged (bartered), that is, exclusively for own use, treatment is far more problematic. Thus the SNA in many ways fails to address the problems associated with own account and subsistence activities, which creates biases in comparisons, which can be very significant in many cases. Logically, economic activity would be defined as all activities which produce goods and services that are potentially marketable, since this would overcome the problems of substitutability of consumption and sales. But the system of measurement would prove impractical, especially in providing value to many household services for own consumption.

How would these services be valued? "Time spent" may not be a useful measure of market value, since the value of work done might be low. Some statisticians/economists suggest opportunity cost approach - the cost if you like, of paying a professional to do the job; or what the women would earn if she were to do other jobs; but the wide variation and difficulties that would be introduced by any of these methods, leads countries to ignore some activities. Generally speaking then, activities are included in the production accounting system where it is considered there are close market parallels; especially therefore non-agricultural products that are made for sale are included while agricultural goods grown for own consumption may be excluded.

B. Household Activities in the Labour Force

The second major classification system is that embodied in the idea of the labour force. In one way the labour force and the national product can be seen as approximate equivalents. If an activity is properly included in the national production, the work effort expended on it should logically be seen as part of the contribution of the labour force.

In many ways the two systems do share similar problems in defining boundaries though often for different reasons. The measurement of the labour force is tied more to practical issues of assigning a person's time to economically active and other activities. It so happens that as with the SNA activities at the establishment, an easily identifiable workplace, provide little difficulty; economic activities performed in the household are more difficult to treat and present problems with defining boundaries.

There are other problems with the definition of labour force which should be highlighted prior to discussing in full the issue of defining the labour force boundary. The first is the problem of the reference period. Most humans are forever engaged in some kind of activity, which is transient in nature, ever changing, and thus any attempt to categorize type of activity for any individual must be very specific with respect to time and place. The second issue concerns the attempt of the labour force concept to measure potentially active persons, who in fact may or may not actually work during the reference period.

Returning now to the question of boundaries. In most national population censuses a question is asked on the main or usual activity of each respondent of work force age. Apart from the issue of reference period, this question as a rule describes activities in a very general way. The Asian and Pacific Recommendations for the 1980 Population and Housing Censuses, for example, anticipates the various categories responses to this question should fall and suggests that the economically active groups would include all persons who were employed during the reference period, including family workers. Special instructions would be provided to ensure that persons engaged in subsistence activities and those temporarily absent from work be also included. A separate category would be provided to identify the unemployed, even some to those who had never worked before. The activities not classified as economically active include home-makers, students, income recipients and others such as retired persons.

The definitions that determine the main activity status of respondents vary widely, but even when we consider the guidelines provided by the International Labour Office, problems abound. One of these, concerns the boundary qualification for labour force participation. In the 1980 censuses this was normally considered 15 hours work a week for unpaid family workers, although the revised recommendation reduces this boundary to 1 hour. But the method of conducting censuses provide considerable possibility for error.

Detailed questions of the labour force are often asked only to those who are economically active according to the type of activity classification. Thus those engaged primarily on home-duties or those who are students are automatically excluded from the labour force. Problems

with the labour force definition are exacerbated when the various approaches to the census reference period are taken into account. It is possible for a person to have engaged in economic activity in the past year or even the past month but not in the past week. Thus status can change as the reference period changes. The minimum qualification of 1 hour applies only to current activity, again creating measurement problems as the reference period is extended. The idea of measuring "main" activity often conflicts with the need to include persons with minimal economic participation; and thus considerable care is needed in defining reference periods and in ensuring that the detailed questions on labour force are asked regardless of main activity.

The measurement of unemployment is similarly affected by the definition of the reference period. The unemployment figures are crucial, not only in themselves, in describing the out-of-work population, but in providing statistics representing the concept of potential labour force, which is the number of people who would work if it were of the right kind and available at the right place and offering a just reward. So far the questions on production boundaries in the SNA and minimal work hours are directed towards measurement of the active work force, actually producing goods and services during the reference period. This does not mean necessarily that persons not directly involved in activities defined as "economic" should be excluded from the labour force.

Indeed recent ILO changes have made it easier to include in the labour force many women involved exclusively in household duties. The earlier definition of unemployment was restricted to persons without a job who were actively seeking work during the reference period. This excluded many people, such as housewives and students who did not work for wages or payment in kind, and who for various reasons, did not actively seek work. The revised definition of the labour force includes not only unemployed persons seeking work but also housewives and others who say they would work if it were offered even though they were not actively seeking it.

C. Other Definitional Problems

As can be seen from the above discussion, the major statistical classifications of economic activities provide boundaries that create problems in determining the contribution of household activities to the economy, and thus are deficient in measuring the economic status of women.

In a similar way the major classifications of occupations and industries themselves largely assume that economic activities will be carried out in an industrial establishment and do not easily assist the identification of household activities; this is true even where inclusion in the work force has been established.

Thus the International Standard Classification of Occupations (ISCO) pays little heed to subsistence activities or many of the informal activities carried out by housewives. The argument in favour of the ISCO approach is that the classification copes well with the major occupations of the population, say in terms of value or hours worked, and so long as it provides residual category for other activities these are not significant to the whole economy.

This argument is reasonable as far as it goes, and may suit many of the more developed countries very well. However, there are many circumstances in which the ISCO and the International Standard Industry Classification (ISIC) are not sufficiently useful to meet all developing country needs. It is important in many situations that the international classifications are expanded to accommodate the employment categories and structures of a particular country. Ideally the expansions would enable regrouping to permit the generation of statistics on an internationally comparable basis. The revised ISCO which will be available shortly, goes much further than earlier versions in providing a basic structure to countries and in encouraging further work for adaptation to national needs. This workshop may wish to consider some of these conceptual problems and propose some machinery for ensuring that further work relevant to the needs of users, will be carried out.

V. OTHER ISSUES IN COLLECTION AND UTILIZATION OF DATA ON THE SITUATION OF WOMEN

Clear statistical objectives need to be articulated to ensure that the social and economic situation of women can be properly measured and monitored. Without these objectives it is unlikely that the statistical design of censuses or surveys will take account of the various methodological and conceptual problems inherent in these measures or that the specific output requirements will be met.

Since a principal source for statistics on the situation of women will be sample surveys, the need to ensure that sampling errors are sufficiently small to provide useful information is a priority. Many survey samples are selected with regard only to their representing the general population and its distribution. Where there are special groups of women, especially those living in disadvantaged situations it is crucial that the sample design incorporates a sufficiently large and robust sample to produce statistics for these groups. Thus the sample framework would need to include some information on such topics as the number and distribution of female heads of households, the distribution of single-parent households, condition of housing, unemployed or low paid households, high fertility families and so on. Without this information the samples may prove inadequate to produce what is needed. With a proper sampling frame, usually available from a population census, it is possible to stratify special groups of women and to ensure that for each stratum the sample is sufficiently large to generate whatever tables will be used.

Survey design embraces far more than considerations of sampling. The way in which the survey schedule is designed, instructions and manuals prepared and training material developed and presented, all influence the reliability of the final results. Of special concern are the wording of questions and the selection of enumerators. Poorly conceived questions will not yield sensible answers. In many instances female interviewers obtain more accurate information from female respondents. Other processes can also contribute to bias. Coding and editing are two important data processing functions which have been known to consider all these issues and their effects on reliability, it may be worthwhile to consider their importance in ensuring high quality statistics.

An integral part of good design is an explicit recognition of the way in which statistics are to be used. This is crucial in the area of the situation of women, since there are now many examples of well intentioned surveys producing poor results. One major difficulty is that there is often a need for a reference population for comparison to help make sense of the statistics. Thus, for example, recent surveys on the health status of women conducted in some countries did not prove very useful in themselves, since it would be difficult to say whether the data depicted a situation better or worse than might be expected. More useful results might have been obtained by comparing mortality and morbidity pattern between neighbouring countries; by ensuring that sufficient background information were collected to permit disaggregation by geographic region or according to some important background variable such as education; by comparing the health status of women over time through repeat surveys; or even by comparing results for males and females.

The production of statistics on the situation of women, as already suggested, involves more than a mere production of standard tables with a sex breakdown. Many other tables will be designed only after a careful consideration on how best to depict the status of women. According to the users needs to identify areas of concern in areas such as employment and unemployment, housing, health education, and fertility, special tables can be generated for groups of women, vulnerable to varying degrees in their social and economic circumstances. A note of caution needs to be added. Though ideally statistics on women could be of sufficient reliability to measure their economic and social well-being and to monitor changes, the small numbers in some groups make analyses very difficult. To take as an example the experiences in the World Fertility Survey in some Asian countries. To describe the economic status of the household in an attempt to analyse its relation with fertility behaviour, occupation or economic activity would be needed. But since most women in some countries, describe themselves as engaged in domestic duties, the results do not provide a sufficient bases for grouping households. Thus the occupation of husband was found to be a more useful indicator.

VI. CONCLUSIONS

We have looked at the problems of collecting data from various sources and have identified some of the inherent weaknesses and strengths of the different sources. The major classifications of economic activity fail to assess the contribution made to economic production of goods and services through the household; since the household remains essentially the domain of women, it follows that their economic contributions are quite seriously under recorded.

Solutions are not easy to find. The classifications are complex and changing the boundaries of production or labour input would shift but not solve the problem. Recognition of the different emphasis placed on the various modes of data collection might provide more promising approaches. The census is limited in scope, and though it provides the source for many important indicators, it cannot be expanded easily. Sample surveys are more promising. Properly designed, they do provide possibilities for more probing inquiries into areas of special concern, and can thus yield both current data and when surveys are repeated, more continuous flow-type data to evaluate changing situations. Other data sources have been poorly used and also could, potentially, provide very useful social and economic indicators. Various administrative offices and agencies could combine to improve data gathering and recording systems for statistical purposes.

Beyond these conventional sources, new approaches are needed to fill some of the existing gaps in sources of data. This workshop might consider a few. More anthropological-type studies could be useful to supplement the high level grouped data, that statisticians concern themselves with. Time-use studies devoted to allocating time spent in various household activities to assess economic and social contributions would be useful. Of course they would be relatively expensive and perhaps difficult to process, but their outputs could be of sufficiently high value to justify their use.

ANNEX V

MEASURES FOR IMPROVEMENT OF DATA QUALITY AND INDICATORS

by

R.B.M. Korale

I. INTRODUCTION

The underlying theme of the paper is the development of statistical capability to improve the quality of statistical data and socio-economic indicators, with special reference to females. The evaluation of existing statistical systems and programmes, by national authorities and international organizations have made it possible to identify the basic issues and problems of concern in the development of statistical systems. In Sri Lanka too, several reports which highlighted these issues, and which have made broad recommendations, for the improvement of the statistical system have been available for some time. These reports have contained both general and specific recommendations for the improvement of data quality.

The socio-economic indicators are used to chart the variation or progress of a given aspect or condition of social or economic development. "Indicators are not necessarily direct and full measures of what they are intended to indicate, but often indirect or incomplete measures" (McGrahahan, 1985). With the states increasing involvement in socio-economic development and the collection of information by international agencies for the monitoring of development the number of indicators used to measure social and economic change has proliferated. The FAO has been concerned with the development of socio-economic indicators for the measurement of the impact of development on the quality of life, specially of the poor sections of the society and for monitoring rural development. Pilot studies sponsored by the FAO were undertaken in a number of countries at the beginning of this decade. On the basis of these studies the FAO has recommended the construction of indicators to cover three areas, viz growth, equity and people's participation. National authorities and international agencies have also been active in this field and the demand for statistical data for the construction and updating of socio-economic indicators have increased substantially. The development of statistics to meet specific data need, specially in respect of indicators that have been accepted more recently has been a challenging task for statistical organizations.

In these introductory remarks it is appropriate to refer to the observations contained in a recent paper, on the improved data collection necessary to create the data bases relating to women. The main areas of action identified in the paper centre on:

- (a) Extensive programme of household surveys to collect data on women;
- (b) Development of data collection modules for the 1990 round of censuses; and
- (c) Elaboration of mini-survey and alternative forms of data collection for project and programme monitoring of women's activities (Fong, 1987)

The development of statistical capability to meet these wide ranging programmes and activities in the context of the present stage of development of the statistical system in Sri Lanka will have to be appropriately phased, as short and long term goals. The resources available to the system would necessarily determine the pace of development and achievement of planned targets.

In view of the difficulties of meeting the resource requirements through the government budget alone it was necessary to negotiate, through government channels, technical assistance from bilateral and multilateral sources to supplement the inputs available from government sources. This technical assistance has been mainly utilized to acquire data processing transport, office equipment and appliances, recruitment of experts and procurement of manpower training for institution building.

II. CURRENT STATUS OF THE STATISTICAL SYSTEM

The Department of Census and Statistics (DCS) is the principal statistical agency of the government and it functions more or less as a central statistical agency. Apart from its responsibility of conducting censuses on all socio-economic conditions, it is required to recruit, train and place professional staff of all government agencies requiring statistical services. In addition it provides statistical services to those government departments and ministries through its specialised Divisions, and undertakes data processing work of a number of agencies including the Registrar-General, Police, Ministry of Labour and the Customs Department.

The Central Bank of Sri Lanka has been a producer of statistics from the inception of the bank, apart from being a principal user of statistical data. It has been conducting a decennial Survey of Consumer Finances since 1953, and in addition it conducts a survey of manufacturing industries, an annual establishment survey of those employed in the public sector, and also collects data on wages and prices.

Private research organizations, such as Marga, have also been responsible for the collection of primary data on socio-economic subjects. The institutional arrangement by which the staff of the DCS is deployed to government departments and ministries which engage in the

collection and processing of primary statistical data, such as the Registrar-General, Ministry of Education, Ministry of Labour, Ministry of Industries and Customs Department have made it possible to achieve a measure of statistical co-ordination.

III. DATA AVAILABILITY ON SUBJECT MATTER

Sri Lanka has compiled fairly comprehensive data, relating to population and population related variables through decennial censuses and the vital registration system. Apart from the decennial censuses, a number of demographic and fertility surveys have been conducted since 1975. The Census of Housing has been integrated with that of the decennial census of population, and a complete enumeration of housing in urban areas and on a sample basis in rural areas have been undertaken. Censuses of Agriculture have been taken in 1962, 1972, 1982 and a Census of Manufacturing Industries was also taken in 1983. Annual surveys of manufacturing industries are undertaken by DCS, Central Bank and Ministry of Industries. Still it has not been possible to conduct a census of wholesale and retail trade, the construction sector, and the services sector. Statistics relating to these sectors of the economy are therefore weak and need improvement. Foreign trade statistics are collected by the Customs Department and compiled and processed by the DCS. Price statistics relating to the whole economy are also weak. The Consumer Price Index uses a base year of 1952, and the weights are outdated. The use of the index for wage indexation in collective agreements have discouraged its revision.

The present series on wage statistics, also require similar updating. National accounts are compiled both by DCS and the Central Bank, and the principal tabulations are constructed on the United Nations SNA formats. The quality improvement of these estimates require reliable and timely estimates and parameters in respect of both industry and household sectors, through surveys. Further development of these statistics necessarily involve the improvement of census and survey programmes.

IV. IMPROVEMENT OF DATA QUALITY

The statistical development programmes, particularly those that were implemented from about the beginning of this decade, have made it possible to substantially strengthen both the volume and quality of data available to the users. DCS has undertaken four censuses on population and housing, agriculture and manufacturing between 1981 - 1984. The Central Bank has conducted two labour force and consumer finance surveys in 1978/79, 1981/82, and is currently conducting a third survey. DCS has conducted four household surveys, which covered the labour force. Income and expenditure, household economic activities, and demographic and social aspects, and is planning a survey of agricultural households. The size of the sample has been raised to 25,000 households. Apart from these, three fertility surveys have also been conducted since 1982.

The data processing facility of the Department was strengthened, to undertake the 1980 series of censuses, and professional training of middle level staff abroad and in-service training of middle and junior staff locally have been carried out. Specialized services to statistical units in ministries and departments have been improved, by strengthening the technical capability of specialized Divisions at headquarters.

In order to meet the needs of users, the volume of publications by the DCS, has been substantially increased during the past few years. With this background it is possible to discuss, the measures necessary to improve data quality. For convenience of treatment, the subjects are grouped under four broad categories:

- (a) Development of institutional infrastructure;
- (b) Improvement of technological capability;
- (c) Staffing and manpower development; and
- (d) Improving of surveys and census taking capability.

(A) Development of institutional infrastructure

(i) Organizational Form and Interaction

There are several aspects falling under this broad group, which have a direct bearing on data quality. The specialized Division or Unit responsible for the census or survey should have its role clearly defined, specially that relating to the specific undertaking, and its relationship with the field organisation, and any other service division. The services and facilities required for the execution of the survey operation, such as printed material, stationery and transport should be available according to schedule and in such amounts as not to adversely affect the survey operation. The communication arrangements between the centre and the field should be smooth and effective and the field staff should be able to receive the necessary guidance and direction on problems and issues encountered during the survey operation.

(ii) Statistical Legislation

The statistical enactments which empower the collection, processing and dissemination of statistical data should be adequate to meet the changing needs. The Statistical Ordinance which was enacted in 1935 requires amendments to provide for direct and clear expression of its intent and purpose. The requisite regulations will have to be framed,

the penalties for non-compliance will have to be enhanced, and the processes and procedures for imposition of such penalties ensured to be direct and not long drawn out. References to laws relating to the provision of data, confidentiality, and penalties for non compliance, and for providing inaccurate information, if carried on the survey documentation, such as in the schedule and instructions to respondents, could improve both response as well as accuracy.

(iii) Involvement of Users

Institutional mechanisms in use for involving the user in censuses and survey taking can be substantially strengthened and formalized. Although dialogue between the user and the producer occurs in large survey operations such as the censuses of population and agriculture, these have been effected through ad hoc means. In respect of recent surveys the users have been consulted in the planning of surveys and in the preparation of schedules for canvassing data. A more formal institutional arrangement could improve both the data gathering operation and the service to users. The support of the users could also be used to strengthen the claims for adequate resources from budget authorities. "The first target of the dialogue is to understand the problems of users, their questions, their needs and their priorities. This dialogue gains importance in view of the fact that in many cases users cannot precisely describe their data needs and are not fully aware of available information". (Report of the Seminar on the Challenge of Managing a Statistical Office in a Changing Environment 1986.)

Planning the survey with users, by having detailed discussion and by agreement, establishes priorities for data collection and reduces costs, through deletion of those items on which data are not urgently required, and a reduction of the respondents and the size of the schedule. Efforts to collect detailed information on some conditions is not productive and this position has been confirmed in some recent studies. "Sixteen census variables were examined and the gross error rate was eight per cent or more for five of them. For two of these, the error rate was over 25 per cent. Moreover for some questions particular categories of answers had even higher rates. The overall gross error rate was highest for the question on number of rooms in the household accommodation. Nearly 29 per cent of answers to this question proved to be wrong. For the question on economic activity eight per cent of the answers were in error for employment status (i.e., employee or self-employed and sub-divisions of these) 10 percent were misclassified. The error rate for occupation at the most detailed level was about 25 percent and even at the much more compressed social class level, 13 percent were in error". Barnes, 1987.

(b) Technological Capability

Two issues which are central to the improvement of statistical programmes, namely the data processing capacity and the development of cartography will be briefly discussed under this section.

(i) Data Processing

The data processing capability directly and indirectly determines the survey programmes of the Department. The type and form of data verification after data capture is also determined by processing capacity. Further, the programmes for imputation of missing data which can be built in also depend on this condition. Timeliness which is an important element of data quality is also largely determined by the installed data processing capacities. The limited processing capacity has contributed to lengthening of the census taking operation and final release of main tabulations to periods as long as 4-5 years. The need for updating the computer equipment of the DCS to reduce data processing delays has been commented on by several missions of international agencies. Technical assistance has been sought to substantially strengthen the data processing capability.

Apart from this issue relating to the capacity of available equipment there are other aspects which are equally important. "The ADB - NEDA Workshop on Statistical Development (1984) noted that bottlenecks also occur at various data processing stages, namely, receipt and control of questionnaires, manual editing, data entry, correction of data entry errors, and production of tables. Thus the choice of the appropriate data processing system was cited as a crucial task that needs to be carefully studied".

There is also the connected issue of a shortage of adequately trained cadres of data processing personnel and the difficulties of retaining trained and experienced staff because of poor remuneration. These problems have generally resulted in difficulties of properly integrating survey design and programme testing and development aspects to be finalised prior to undertaking data collection operations. Inadequate staff resources generally result in the postponement of programme development to be pushed down even after data collection operation. It prevents the necessary interaction between system development staff and survey design staff to finalise the schedules for structuring the schedule to achieve maximum or optimum efficiency. This aspect will be further discussed under manpower development.

(ii) Census Cartography

Hitherto the demarcation of census enumeration areas for population census operations were based on sketch maps prepared at the time of the house listing operation. The accuracy of the population frames prepared in this manner can be severely affected. The fact that some housing units had not been listed at the time of house listing operations have been reported. As no well designed post enumeration surveys of adequate coverage, have so far been undertaken, it has not been possible to comment on incompleteness and errors in reporting in censuses. The development of census cartography is important to improve

the quality of data in all household and establishment surveys which use the population census frame in survey design. Although the need to develop this facility is well recognised, the resources required for its implementation make it necessary to attempt the introduction of census cartography under a phased programme, work on this has already started.

(c) Manpower Development

The paucity of trained and experienced manpower at all levels has been one of the critical issues in the development of statistical capability. This is an issue which is common to most developing countries. The problem in Sri Lanka has been made more acute, by difficulties of retaining experienced personnel, because of relatively poor levels of remuneration. More recently this problem has particularly affected data processing cadres with a high outward mobility from statistical positions. The remedial measures adopted, include efforts at securing a higher volume of training opportunities, including placement in foreign training institutions which act as an inducement for recruitment, and which allows for retention through bonding for compulsory service for specified periods.

The availability of educated females for recruitment at different career entry point levels have inducted into the service significant numbers of females during the past one and a half decades.

The presence of cadre of female officers in field officer grades and senior positions has made it easier to translate the needs of data users on gender specific subject information. In this connection it is worthwhile to quote "Statistical organisations issues affecting the quality and availability of data on women include staffing patterns of national offices. Whether women (and men) are participating on an equal basis in the various activities of a national statistical office can have important technical implications for statistics on women" (Johnston et al, 1987).

The reliability of the data collected primarily depends on the interviewers' understanding and ability to obtain accurate responses to the questions in the schedule from the respondents. In order to reduce the errors due to lack of understanding of the content of a questionnaire, the field staff deployed on the survey will have to be provided with intensive training. The presence of a permanent field staff who have acquired experience in previous surveys have helped to reduce these errors, having an adequate proportion of female officers would also provide the correct perspective with regard to gender specific information.

(d) Survey and Census Taking Capability

Survey estimates are often the end result of a complex survey process. It has been commented that a survey is in a sense a measuring instrument and "how well this instrument is calibrated depends on everything from the sample frame used, the sample design and data collection procedures to the estimation procedures. Any changes in the survey process can affect the survey estimates. Changes in the order of questions can affect the measurement resulting from the survey instrument" (Tortora et al, 1987).

Some socio-economic conditions are very sensitive to the concepts and definitions used, and even a slight modification in the definition of the terms could result in a significant variation in the estimates. This position is observed in such variables as economic activity, income and expenditure. This makes it necessary to carefully review the concepts and definitions used in the schedule and any changes made to them will have to be carefully examined. Pre-testing of the schedule would help to ascertain responses and modify it if necessary after careful evaluation. Areas where statistics relating to females have been weak relate to economic activity, particularly in domestic agriculture, household economic activities, employment incomes, etc. "Particular attention was drawn to the problems of data collection and estimation of small units and the informal sector. Weaknesses in these data extend to a wide range of derived statistics on production, income, and income distribution, expenditure and other socio-economic indicators. These problems arise from the transitory characteristics of these sectors which affect the stability of the frame; the inability of the sector to provide the information required, and possible overlap arising from a dual role as producer and consumer." (ADB - NEDA Workshop on Statistical Development, 1984).

V. SOCIO ECONOMIC INDICATORS

There are several features of socio-economic indicators which can be used to advantage in a study of the data and information requirements for their construction. Socio-economic indicators are:

- Principally time series of statistics;
- Measured by methods as valid as can be obtained, the well being of individuals; and
- Summary statistics representing a socio-economic concern.

They should be:

- Relevant to current or potential intervention policies by providing measures of their outcome, and

Capable of disaggregation to describe the well-being of specified population sub-groups (Australian Bureau of Statistics, 1984).

It has been commented that there are two considerations which are primary to the construction of socio-economic indicators, namely (a) the conceptual aspect, and (b) the data aspect.

(a) Conceptual Issues

The concepts and definitions used in statistical data collection have been framed taking into consideration the need for international comparability, convenience of use, expert advice, and requirements of funding agencies. These definitions have also been constructed making modifications to meet the local situation. In practice however, it is often found that they are subject to weaknesses that make it difficult to measure the actual condition described in theory. Thus this departure of the operational definition, from the theoretical one results in a need to regularly review the operational definitions to bring national concepts in line with them making it necessary to amend the ones in use. These improvements effected to operational definitions would enable more accurate measurement of parameters that have been chosen, reducing the differences between the actual value, and the measure reading recorded. This improvement of course creates a bias, by reducing the comparability of the data with those taken earlier before the definition was amended. This loss of comparability in the statistical series should be carefully considered before decisions are taken to amend the operational definitions of statistical parameters used in the construction of indicators.

The need for standardization of definitions and concepts used in data sources has been recognized. This is specially important where a number of organisations are engaged in the production of statistical data. In Sri Lanka, apart from DCS, the Central Bank of Sri Lanka, the Registrar General's Department and the Department of Labour are engaged in the collection and processing of socio-economic statistics. There are also a number of government ministries and departments which utilize the professional staff of the DCS to organise and design the collection of statistical data. The Ministry of Industries, the Ministry of Education, Ministry of Health are examples. Similarly there are a number of semi-government institutions and private sector organisations which collect, process and produce primary data on a number of socio-economic variables.

The existence of a multiplicity of organisations concerned with the collection and processing of data, makes it very necessary to achieve a degree of standardization in the concepts and definitions used in measurement. In order to achieve this standardization the ILO advisory mission to Sri Lanka in 1971, recommended that all statistical

questionnaires be submitted to the Department of Census and Statistics for scrutiny and acceptance. Unless a central authority pursues and examines the survey documentation to ensure uniformity, there is no way to achieving the desired standardization.

(b) Data Problem

For the indicator to reflect the aspect that is measured, the data used in its construction should be of adequate coverage and reliability. It is not always easy to select data sources which have provided reasonably reliable data over a sufficiently long time span where the data had remained comparable, and where the coverage had been adequate and uniform to be used in the construction of indicators. The paucity of data for the construction of indicators make it necessary to carefully evaluate the need for new indicators. The construction of an indicator based on poor quality data, would serve little purpose to determine the direction of change of the variable studied. It is important that a sufficient number of data points, for different time periods, based on actual observations be available. It is unsafe to construct indicators involving an excessive use of estimates and assumptions.

The quality of the data will have to be carefully evaluated, and data screened for defective values, outliers, etc.; particularly when the data has been gathered by a number of organizations it is very necessary to check the concepts and definitions in the surveys, and in the footnotes given in the Tables.

The data can be screened for defective values and consistency in a number of ways. One way could be to check the trend, and if the values are far out then a careful evaluation of the source will be prudent. Checking for consistencies of closely related indicators, could be another way of isolating inconsistencies in data quality. Frequently it would be necessary to check with the data producer, for any biases that may have been introduced and non-sampling errors which have become significantly high for one reason or the other. These make it necessary to make various adjustments to the data, to provide comparability. The type of adjustment required could vary and it is best done in consultation with the data producer.

REFERENCES

1. ABD - NEDA Workshop on Statistical Development. (1984) Manila, ABD.
2. Barnes, R., How Good is the Information that is Collected. International Statistical Institute 46th Session Contributed Papers. (1987) Tokyo, ISI.
3. Fong, M. S., Monitoring Women's Work in Agriculture, International Statistical Institute, Contributed Papers (1987) Tokyo, ISI.
4. Johnston, W., et. al. International Issues in the Development of Statistics and Indicators on Women. ISI Contributed Papers (1987). Tokyo, ISI
5. Korale, R.B.M., Employment and the Labour Market in Sri Lanka: A Review (1984) Washington, IBRD.
6. McGranahan, D., et.al. Measurement and Analysis of Socio-Economic Development (1985) Geneva, UNRID.
7. Report of the Seminar on the Challenge of Managing a Statistical Office in a Changing Environment (1986) Munich, Munich Centre.
8. Sahib, M.A., Development of Statistical Agencies in ESCAP Region (1987) Tokyo, ISI.
9. Department of Census and Statistics, Socio-Economic Indicators of Sri Lanka, (1983) Colombo.
10. Tortora, R.D. et.al. Standards for Official Statistics ISI (1987). Tokyo, ISI.
11. I.L.O. Matching Employment Opportunities and Expectations - Technical Papers, (1971) Geneva, I.L.O.
12. United Nations, National Household Survey Capability Programme (1986) New York, UN.

ANNEX VI

PROGRAMME

12th October, 1987

8.30 - 9.00	Registration	
9.00 - 10.00	INAUGURAL SESSION	
	Introductory Remarks Dr. Swarna Jayaweera	Co-ordinator CENWOR
	INSTRAW Representative ESCAP Representative	Marie Paul-Aristy Yumiko Tanaka
	Keynote Address	Mr S.M.L. Marikar Secretary, Ministry of Plan Implementation
10.00 - 10.30	T E A	
10.30 - 10.45	SESSION I	
	Chairperson	Mr. R.B.M. Korale Director of Census and Statistics
	Workshop Objectives and Organization	Ms T. Sanmugam Workshop Co-ordinator
10.45 - 12.00	OVERVIEW OF AVAILABLE DATA SOURCES	Mr A.G.W. Nanayakkara Deputy Director, Dept. of Census and Statistics
		Mrs Suranjana Vidyaratne Assistant Director, Dept. of Census and Statistics

12.00 - 13.00 Open Forum led by

Mrs Myrtle Perera
Associate Director,
Ministry of Plan
Implementation,
Population Division

13.00 - 14.00 L U N C H

14.00 - 15.00 SESSION II

Chairperson

Dr. Swarna Jayaweera
Co-ordinator,
CENWOR

REVIEW OF GENDER-SPECIFIC
SOCIAL AND ECONOMIC
INDICATORS

Dr. Gamini Abeysekera
Deputy Director,
Banking Development,
Central Bank of
Sri Lanka

15.00 - 15.30 T E A

15.30 - 16.30 Open Forum led by

Dr. Nimal Fernando
Deputy Director,
Rural Development
and Credit Division,
Central Bank of
Sri Lanka

Dr D.N.R. Samaranayake
Economist,
United States A.I.D.
Mission to Sri Lanka

13th October, 1987

9.00 - 10.30 Working Group Discussions
on Topics of
SESSIONS I & II

10.30 - 11.00 T E A

11.00 - 12.00 SESSION III

Chairperson

Dr. Priyani E. Soyza
CENWOR

DATA NEEDS FOR GENDER-SPECIFIC
SOCIAL AND ECONOMIC INDICATORS

Dr. Swarna Jayaweera
Yumiko Tanaka, ESCAP

12.00 - 13.00 Open Forum led by

Ms Malini Veerasingham
Research Consultant,
Women's Bureau

Ms Sonali Deraniyagala
International Centre
for Ethnic Studies

13.00 - 14.00 L U N C H

14.00 - 16.00 Working Group Discussions

14th October, 1987

9.00 - 10.00 SESSION IV

Chairperson

Dr. Ananda Meegama
Project Officer,
Applied Research and
Evaluation,
UNICEF.

PROBLEMS OF DATA UTILIZATION
FOR CONSTRUCTION OF
INDICATORS

Mr. Lawrence Lewis,
Regional Adviser on
Population Censuses
and Surveys, ESCAP

10.00 - 10.30 Open Forum led by

Mrs. Soma de Silva
Assistant Director,
Dept. of Census and
Statistics.

Mrs Lalitha Gunawardene
Sociologist,
Mahaweli Economic
Agency.

12.30 - 13.30 L U N C H

13.30 - 16.30 Working Group Discussions

15 October, 1987

9.00 -- 10.00 SESSION V

Chairperson

Dr. Gamini Abeysekera
Deputy Director,
Banking Development,
Central Bank of
Sri Lanka.

MEASURES FOR IMPROVEMENT
OF DATA QUALITY AND
INDICATORS

Mr.R.B.M. Korale
Director,
Dept. of Census and
Statistics.

10.00 - 10.30 T E A

10.30 - 12.30 Open Forum led by

Dr. Ananda Meegama
Project Officer,
Applied Research and
Evaluation, UNICEF.

Dr. Pinnaduwa
Dept. of Agricultural
Economics & Extension,
Faculty of Agriculture
University of Peradeniya

12.30 - 13.30 L U N C H

13.30 - 16.30 Working Group Discussions

16th October, 1987

MORNING FREE

13.00 - 15.00 SESSION VI

Chairperson

Dr. Daya Samarasinghe
Secretary,
Ministry of Women's
Affairs and Teaching
Hospitals.

Presentation of Recommendations

Chief Rapporteur

Thana Sanmugan

15.00 - 15.30 Discussion of Recommendations

15.30 - 16.00 T E A

16.00 - 16.30 Adoption of Report

Closing Session

ANNEX VII

LIST OF PARTICIPANTS

Lecturers

Dr. Gamini Abeysekera	Deputy Director Banking Development Dept., Central Bank of Sri Lanka
Dr. Swarna Jayaweera	Co-ordinator, CENWOR
Mr. R B M Korale	Director, Dept. of Census & Statistics
Mr. Lawrence Lewis	Regional Adviser on Population Censuses and Surveys, ESCAP
Mr. A G W Nanayakkara	Deputy Director, Dept. of Census & Statistics

Discussants

Dr. A T P L Abeykone	Deputy Director, Ministry of Plan Implementation, Population Division
Ms. Soma de Silva	Assistant Director, Dept. of Census & Statistics
Ms. Sonali Deraniyagala	International Centre for Ethnic Studies, Colombo
Dr. Nimal Fernando	Deputy Director, Rural Development & Credit Division, Central Bank of Sri Lanka
Ms. Lalitha Gunawardene	Sociologist, Mahaweli Economic Agency
Ms. Myrtle Perera	Associate Director, Marga Institute
Dr. S. Pinnaduwage	Dept. of Agricultural Economics & Extension Faculty of Agriculture University of Peradeniya

Mr. D N R Samaranayake	United States A I D Mission to Sri Lanka
Ms. Malini Veerasingham	Research Consultant Women's Bureau
Dr. Ananda Meegama	Project Officer, Applied Research and Evaluation, UNICEF

Participants

Ms. Dorothy Abeywichrema	First Vice President, Sri Lanka Women's Conference
Mr. M A Ariyadasa	Chief Education Officer, Planning & Programming Branch, Ministry of Education
Ms Padmini Bandaranayake	Lecturer, University of Peradeniya
Ms. Manel Chandrasekera	Research Officer, Women's Bureau, Ministry of Women's Affairs & Teaching Hospitals
Mr. Henry de Mel	Assistant Programme Officer, SIDA
Ms. Manel de Silva	Programme Officer UNDP
Ms. Sriyani Dias	Senior Lecturer Geography University of Sri Jayewardenepura
Mr A M U Dissanayake	Statistician, Agricultural Division, Dept. of Census & Statistics
Ms. Seela Ebert	Women's Chamber of Industry & Commerce
Ms. Kiruga Fernando	Deputy Commissioner of Labour Dept. of Labour

Ms S. Fernando	Research Department, People's Bank
Ms. Vijitha Fernando	Executive Secretary Water Decade Service
Mr. H W Gunatilake	Assistant Research Officer Bank of Ceylon
Dr Nimal Gunatilake	Assistant Director Macro Economics Studies Division Marga Institute
Mr. H S Herath	A.G.A., Kalutara Town
Mr. A Kahanda	Statistician, Department of Labour Dept. of Census & Statistics
Ms. R Karunanayake	Assistant Lecturer, Dept. of Economics, University of Ruhuna
Ms B D Kottahachchi	Statistician-Econometrician, Planning & Research Division University Grants Commission
Ms E.K. Masinghe	Assistant Director, National Planning Division, Ministry of Finance & Planning
Dr. Thilaka Methananda	Senior lecturer, Dept. of History, University of Peradeniya
Ms P G s S Neunehelle	Statistician, Family Health Bureau, Ministry of Health
Ms Dhamika Nimalaratne	Sri Lanka Federation of University Women
Ms. Swarnalatha Perera	Lecturer, Dept. of Sociology Faculty of Arts, University of Sri Jayewardenapura
Ms Iranganie Porage	Sri Lanka Federation of University Women
Ms Gowri Palaniappan	Lecture, Sri Lanka Foundation Institute

(Mrs) P C H Ranasinghe	Senior Lecturer in Geography, University of Colombo
Mr H A B Rodrigo	Statistical Officer, Planning & Programming Division Ministry of Fisheries
Ms Kusum Salgado	Sarvodaya Central Office Rawatawatta, Moratuwa
Ms Shireen Samarasuriya	Voice of Women
Ms. B M A C Senanayake	Agricultural Economist, Dept. of Agriculture Peradeniya
Ms A C K Sepala	Research & Training Officer, Agrarian Research & Training Institute
Ms I Tudawe	Research & Training Officer, Agrarian Research & Training Institute
Ms I Unamboowa	Director, Industrial Development Board
Ms. Leelangi Wanasundera	Chief Documentalist Research Department, People's Bank
Ms Dharma Wickramasinghe	Siyath Foundation
Dr (Mrs) W A R Wijeratne	Senior Lecturer, Open University of Sri Lanka
ESCAP	
Mr. Lawrence Lewis	Regional Adviser on Population Censuses & Surveys
Ms. Yumiko Tanaka	Social Affairs Officer, Women in Development Section Social Development Division

CENWOR

Ms. Padmini Abeywardene
Ms. Malsiri Dias
Dr. Hema Goonatilake
Dr. Swarna Jayaweera
Ms. Kamala Pieris
Ms. Thana Sanmugam
Prof. Priyani Soyza

Ms. Thana Sanmugam Workshop Co-ordinator

Ithali Goonewardene Workshop Secretary

Monica de Silva
Workshop Assistant
Kumudini Perera
Workshop Assistant
Karen Daniel
Word Processing Operator

INSTRAW

Dr. Mercedes Concepción Consultant
Ms. Marie Paul Aristy Social Affairs Officer

