A GUIDEBOOK FOR MAINSTREAMING GENDER PERSPECTIVES AND HOUSEHOLD PRODUCTION INTO NATIONAL STATISTICS, BUDGETS AND POLICIES IN AFRICA

Addis Ababa, 2004
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Foreword

The fundamental reason behind the production of this Guidebook is that conventional economics fails to account for all economic activity. Conventional economics and most economic statistics exclude the enormous volume of unpaid work and the undeniably valuable output of services by the household or "care" economy to which women provide most of the labour. The value of the household economy is now estimated to be up to fifty per cent of national GDP, making it a strong case for the need to consider both the household economy and the market economy in planning, monitoring and evaluation of impacts of social and economic policies on households and people (women, men and children). However, comprehensive, reliable and tested knowledge for planning, monitoring and evaluating policies has been and is extremely difficult to find in Africa. This is largely because the capacity of African national statistical organizations have not been supported with adequate financial and technical resources to generate gender-disaggregated data (GDD) of household production and services that are needed to help develop national planning instruments that consider household economy.

It is expected that the Guidebook will offer a compendium of methodologies, materials and tools to improve the skills of statisticians, national accountants and policy analysts in the collection, analysis and use of gender-disaggregated statistics for integrating women's and men's unpaid work and household production into sound policy making, implementation and evaluation. Consequently, the Guidebook will contribute to the reform by African governments of their National System of Accounts and collect regular GDD to prepare among others, National Satellite Accounts (Input-Output Tables) of Household Production as regularly as core National Accounts according to the recommendations of the UN Statistical Commission in the 1993 revision of the System of National Accounts. These accounts will among other purposes:

- Provide for policy formulation, a global view of gender-disaggregated statistics on productive activities by households and give an economic value of these activities; and
- Serve as a database for building gender-aware macroeconomic frameworks including macroeconomic and microsimulation models to monitor and evaluate impacts of policies such as on poverty reduction before their implementation.

As these frameworks become available, they can be used for advocacy on policy action including recognition of household economy as an integral part of the total economy, and as a key strategy for promoting gender equality. Overall, this initiative is expected to improve the welfare of women, men and children by directing policy actions including programmes and resources to address gender-related household production obstacles to national development.

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Acknowledgements

The development of this Guidebook drew heavily upon country experiences on time-use studies in and outside Africa, as well as experiences of international institutions that have prepared related documents at regional and global levels. In Africa, by 2002, Benin, Madagascar, Morocco, Nigeria, and South Africa had attempted time-use studies.

Concerted efforts and resources have been invested in the preparation of this Guidebook. The Guidebook is the result of contributions made in expert group meetings by a team drawn from national and international statistical organizations as well as institutions involved in gender issues and household economy. The first Expert Group Meeting, which was held in 2002 in Yaounde, Cameroon reviewed and validated the analytical and conceptual framework for preparing an “Africa-specific” Guidebook for integrating gender perspectives and household production into national accounts, budgets and policies in Africa. The second Expert Group Meeting held in May 2003, Addis Ababa reviewed and endorsed the structure of the Guidebook. In December 2003, a third Expert Group Meeting held in Addis Ababa reviewed the draft Guidebook prepared by the Economic Commission for Africa.

Members of the Expert Group Meetings include: Diallo Ouedraogo (Burkina Faso), Addis Yigzaw (Ethiopia), Richard Azameti (Ghana), Harivelo Rajemison (Madagascar), Marietha Gouws (South Africa), Mathew M. Sewanyanna (Uganda), Shebo Nalishebo (Zambia), Jacques Charmes (France), Duncan Ironmonger (Australia), Anushree Sinha (India), Ann Lisbet Brathaug (Norway), Scott McDonald (UK), Magdolna Csizmadia (UNSD), Lene Mikkelsen (ESCAP), George Okutho (ILO), Adriana Mata Greenwood (ILO), Hans Lofgren (IFPRI), Aues Seek (GTZ), Josephine Ouedrago (ECA), George Alibaruho (ECA), Alfred Latigo (ECA), Boateng Kwabia (ECA), Juliana Gonsalves (ECA), Patrick Osakwe (ECA), Maite Lopez (ECA), and Omar Abdourahman (ECA).

Finally, the Guidebook represents materials contributed by the following authors with their affiliation at the time of reviewing the draft Guidebook. The authors are drawn from a multidisciplinary background that represented all the modules in the Guidebook covering the concepts of gender perspectives and household production; collection, analysis and use of gender disaggregated data and statistics for policy formulation and evaluation; and gender-responsive budgeting:

- Deborah Budlender, Director, Community Agency for Social Enquiry and the Centre, Cape Town, South Africa
- Jacques Charmes, Professor of Economics, Environment and Development (C3ED), University of Versailles, France
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- Duncan Ironmonger, Professor and Director of Household Economics, University of Melbourne, Australia
- Alfred Latigo, Senior Economic Affairs Officer, African Centre for Gender and Development, ECA
The Guidebook also benefited from the services of Prof. Shila Mary Cameroon, Professor of Economics, Freelance Editor, Mt. Eliza Business School, Australia for editing the draft Guidebook. Further thanks are extended to Prof. Jacques Charmes who facilitated funds for translating the Guidebook into French.

An electronic copy of the Guidebook is available on the internet at www.uneca.org. Comments on the Guidebook are welcomed and should be emailed to Guidebook@uneca.org and will be taken into account in any future revision.
A New Guidebook for Africa

What is the New Guidebook?

This new Africa-specific Guidebook is a major output of ECA's programme on Mainstreaming Gender in National Accounts and National Budget based on gender disaggregated household expenditure estimates, National Time Accounts (NTA), and National Satellite Accounts of Household Production (NSAHP) generated from time use household surveys.

The New Guidebook offers a compendium of methodologies, materials and tools to improve the skills of statisticians, national accountants and policy analysts in the collection, analysis and use of gender-disaggregated statistics for integrating women's and men's unpaid work and household production into sound policy making, implementation and evaluation.

1. The development and monitoring of the progress of social and economic policies requires a thorough knowledge of at least three sets of information. These are:
   - how social and economic systems operate;
   - the past, current and future evolution of systems under present and proposed policies; and
   - the impacts of policies on households and people (women, men and children).

2. Reliable and tested knowledge of these three requirements has been and is extremely difficult to obtain in Africa. However, in developed countries where national statistical organizations have been supported with adequate financial and technical resources, monitoring of the evolution of the social and economic systems is reasonably accurate. Projections and forecasts of the evolution of economic and social systems are available for many of these countries. In some countries the impacts of policies on households and people are calculated before implementation. It spite of this progress elsewhere, unfortunately, national and regional statistical systems in Africa have not made this type of progress to generate gender-disaggregated data (GDD) that are needed to help understand, evaluate and monitor systems, policies and people. This is not news; all researchers and policy makers would like to have more and better data. But it is now realized that the main economic statistics used in research and policymaking - the national accounts and the official statistics of work are vastly incomplete.

3. Gross National Product (GNP) covers at best about 60 per cent of all valuable production and labour market employment statistics cover less than 50 per cent of all work performed each week. On a gender basis, the regularly published labour statistics cover perhaps 75 per cent of men's work and 33 per cent of women's work (Ironmonger 1999).

4. Thus the fundamental reason behind the production of this Guidebook is that conventional economics fails to account for all economic activity. Conventional economics and most economic statistics exclude the enormous volume of unpaid work and the undeniably valuable output of services by the household or "care" economy. Economics is blind to the unpaid work and production of women (and men) within households.
5. The household production as described in this Guidebook comprises four categories: (i) unpaid services for own final use (domestic and care-giving services); (ii) informal sector production of goods and services for own final use by unincorporated enterprises owned by households (subsistence production and other kinds of informal enterprises); (iii) unpaid volunteer/informal domestic and care-giving services to other households; and (iv) production of housing services for own final consumption (imputed rents of owner-occupied housing).

**Background and Objectives of the New Guidebook**

6. The Guidebook aims at sharpening the skills of both producers and users of gender-disaggregated micro- and macroeconomic statistics based on time-use and household surveys. Just as the System of National Accounts (SNA) provides an international standard for all countries, so it is the intention of the Guidebook to provide a measurement framework for an African system of accounts of household production - an African System of Household Accounts (ASHA).

7. The starting point for the Guidebook is the 1993 UN System of National Accounts (1993 SNA) produced by five international organizations (Commission of European Communities et al., 1993). The scope of the Guidebook is economic production beyond that defined by the SNA. While the SNA provides a basis for comparisons through time and across countries, it has a limited view of the total range of work and production. The huge volume of household production of services for own consumption is not included within the 1993 SNA production boundary. Throughout the world, the work and production of these services rivals the work and production included within the SNA estimates.

8. The development of this Guidebook drew heavily upon country experiences on time-use studies in and outside Africa, as well as experiences of international institutions that have prepared related documents at regional and global levels. In Africa, by 2002, Benin, Madagascar, Morocco, Nigeria, and South Africa had attempted time-use studies. The institutions include: the United Nations Statistics Division (UNSD), the Economic Commission for Asia and the Pacific (ESCAP), the Organization for Economic Co-operation and Development (OECD), the International Labour Organization (ILO) and the Statistical Office of the European Communities (EUROSTAT).

9. The aim of the Guidebook is to show African countries how they can estimate the contribution of the household to economic production, and how to integrate this information in policy formulation using national accounts and government budgets. It demonstrates how these practices might best be used in an Africa-specific situation.

10. The overall goal of the Guidebook is to build the capacities of national statisticians, national accountants, policy analysts, and development advocates in the collection, analysis and integration of time-use GDD and statistics on household production into national accounts and national budgets.

11. As a training document, the Guidebook provides the context and justification, as well as the methodologies and tools for generating and utilising time-use gender-disaggregated data and information on household production. Building the capacity of national experts in these areas should become a top priority because knowledge and analytical tools that remain in the
hands of a few experts will not be very useful. Likewise, advocacy, without the analytical tools, is likely to be dismissed.
Why an Africa-specific Guide?

12. There is an urgent need to address Africa’s special problems relating to collecting and analyzing data on the non-market household economy. This new Guidebook is needed more in Africa than elsewhere. Compared with the developed countries and Asia, Africa is relatively poor in time-use and household survey data and has relatively greater need for these data to help mainstream gender in poverty reduction.

13. The following compelling reasons justify the need for an Africa-specific Guide:

- African countries lack gender-disaggregated data and statistics that are needed to help understand, develop, implement, monitor and evaluate social and economic policies.
- An inventory the ECA conducted in 2002 in African countries shows that national reports have marginal data analysis with gender distinction. Gender disaggregated data are mostly information on labour market employment, and are not collected in any systematic manner because of lack of prioritisation in such analysis.
- The study further shows that no African country currently has developed or uses a gender-aware model for evaluating impacts of policies on the productivity of household production and on poverty reduction. Given the increasing need for governments in Africa to evaluate impacts of their policies on growth and poverty reduction, the need for such a tool and guidelines to use it has never been greater.
- The scope and methods for time-use studies in Africa are currently limited to few African countries partly due to difficulties in measuring time in a rural population not experienced with completing time-use questionnaires. However, the available concepts and methodologies recently employed in time-use surveys, particularly the Indian TUS of 1999, have been tailored to address the unique objectives for time-use studies in developing countries. This experience can be used to greatly reduce the degree of difficulty that African countries will have in producing time-use data.
- The procedures for conducting the different surveys, including that for the recent time-use studies in Africa, are not standardized so as to allow inter-country and intra-country comparisons. The need for standardized data is particularly crucial given that regional integration efforts and emerging development policies and strategies such as the poverty reduction strategies and the New Partnership for Africa’s Development (NEPAD) are shaping Africa’s development path. A common approach to tools and methodologies in the development paradigm is essential.
- As African governments build frameworks in which time-use data are used for macroeconomic analysis, there is an opportunity to standardize the data for African countries and to improve the currently different approaches and base lines. Even if one country collects data through the diary and another through the interview method, agreed procedures and classifications can be used to minimize inconsistencies and to construct comparable data sets across countries and through time.
- African countries present their statistics in various official publications, such as Economic Reports, Annual Financial Statements, Government Budget Estimates, Agricultural Statistical Bulletins, External Trade Statistics Reports and Household
Surveys. Now is the time to reduce gender-related inconsistencies and deficiencies in these publications. Through the establishment of a programme of Continuous Household Surveys (CHS), the New Guide sets out a plan to re-invigorate the national statistical systems of Africa and provide a consistent framework of gender-disaggregated time-use and other household data.

Countries visited during the inventory expressed keen interest to carry out time-use surveys based on a standard guidebook for all African countries to address the region's specific concerns. Most countries also expressed an urgent need for capacity building in time-use studies, analysis and integration of gender-inclusive data into national accounts and national budgets.

14. This Africa-specific Guidebook is designed to meet the clear and definite need for a handbook for carrying out time-use surveys, preparing national accounts of household production and for integrating household production into poverty reduction strategies.

How is the Guidebook Organized?

15. The Guidebook is organized in three parts containing seven modules. Different users may wish to focus their attention on particular modules. The modules are designed to be read separately. Everyone should benefit from reading and understanding the first module on household production. National statisticians and national accountants should find interesting material in the second part, which provides guidance on good data collection and practices and describes how the data can be used to compile national accounts of household production. The third part provides analytical procedures for engendering government budgets, identifying policy options and advocacy strategies as well as evaluating impacts of policies.

PART I: HOUSEHOLD PRODUCTION

16. In general, economics portrays households in which women provide most of the labour as consumers and fails to recognise households as producers using their own labour and capital. Conventional economics presents households as places of consumption; economic theory focuses on consumer behaviour that concerns the choice of households on the quantities of the commodities they buy given the limitations of their money incomes and the prices of commodities. With few exceptions, economics fails to discuss the allocation of time to various processes of household production where neither inputs nor outputs are remunerated.

Module I: Household Production and the Household Economy

17. Household production is the production of goods and services by the members of a household, for their own consumption, using their own capital and their own unpaid labour. Goods and services produced by households for their own use include food, clothing, furniture, accommodation, meals, clean clothes, child care and the care of the elderly and disabled. Household production also includes helping other households without receiving monetary reward either directly on a household-to-household basis or on a cooperative basis through voluntary organisations, schools, clubs and societies.
18. In developing countries many millions of households use their own capital and unpaid labour by way of fishing, collecting wood and water, growing vegetables and other food, building shelter and making furniture and clothing. This is known as subsistence production when the goods produced are used within the household that produced them or is shared with other households without monetary payment. When the wood, water, food, fibre and other goods are in fact sold to other households or business enterprises, their production conceptually becomes part of market production.

19. The household economy describes the collective household production activities of households. Often the household economy is called the household sector as distinct from the business, government and foreign sectors of the economy. However, household production and the household sector are large enough to deserve the term household economy. The rest of the economy can then be called the market economy.

PART II: NATIONAL STATISTICS OF WORK, PRODUCTION AND HOUSEHOLDS

20. In general, the present official national economic statistics of work and production exclude unpaid work in the household economy and the value of the economic output from that production. Part II shows how new official statistics through time-use surveys, national accounts of household production and continuous household surveys can be produced to cover the glaring gaps in the present statistical systems of Africa.

Module 2: Time-use Surveys (TUS)

21. Time-use surveys are used to investigate how women, men and children allocate time among different tasks and the time they have for rest and leisure. Time-use surveys, sometimes referred to as “Time Use Studies”, “Time Budget Surveys” and “Time Allocation Studies” provide a valid tool for capturing previously hidden activities of household production. Statistics of time-use are measures of the use of human capital (human resources). Work is the use of human capital to produce valuable outputs, whether these outputs are sold or not and whether the work is paid or not. Consequently economic statistics of work should cover all market and non-market work.

22. Time-use data help in promoting better understanding of the economy and society as follows:

- Help decision makers recognize and commit resources to household production. Current labour statistics do not measure all work spent in the production of economic goods and services. However time-use statistics provide a more complete and better measurement of all labour inputs for both market and non-market economies, and thus greatly improve analysis of gender issues and gender-inclusive policies.
- Help in policy making and in monitoring the economy and society by providing insights into how social and economic systems operate. They measure and explain the impact of policies on households and people by revealing the day-to-day patterns in life of women and men, and how work is shared.
- Help estimate total economic production and income for good quality national accounts, which are vital for economic policy-making and research.

Module 3: Continuous Household Surveys
23. Continuous household surveys are national studies of a representative sample size of not more than 5,000 households per country conducted annually, rather than every month as they are in most developed countries. The data would be used through NSAHP to understand the short-term dynamics between the household economy and the market economy, and to generate gender-disaggregated data for constructing gender-aware macroeconomic models. A programme of action to establish continuous household surveys throughout all African countries is the essential starting point for the creation of modern, vigorous and up-to-date national statistical systems throughout Africa. It is proposed that in 2005 an initial set of six to ten countries would start a harmonised programme of continuous, six-monthly surveys of time-use and other household data. These surveys would then provide the basis in 2006 for making the first estimates of National Satellite Accounts of Household Production and GHP for the year 2005 for these initial programme countries.

24. These NSAHP and GHP estimates would be on a comparable basis across countries. By mid 2006 the countries in the Continuous Household Surveys (CHS) programme would be able to prepare gender-responsive government budgets for 2007 based on the initial TUS, NSAHP and GHP data for 2005. Simultaneously in 2006, the gender disaggregated time-use and household data from the initial CHS could form the basis for the construction of both gender-aware macroeconomic models of the total economy – both household and market – and for gender-based micro-simulation models of household production.

25. The new household-survey-based modern statistical system should spread across Africa, as countries re-adjust budgets to provide adequate resources to their national statistical organisations. As part of this programme the African countries should produce three new statistical systems – an African System of Time Accounts (ASTA), an African System of Household Accounts (ASHA) and an African System of National Accounts (ASNA).

Module 4: National Satellite Accounts of Household Production (NSAHP)

26. National Satellite Accounts of Household Production (NSAHP), which are sets of accounts developed as an expanded version of the central accounts aim to provide an overall picture of the productive activities of households and to give an estimate of the value of household production undertaken mostly by women. NSAHP covers four categories of production and services: (i) domestic and care-giving services; (ii) subsistence production and other kinds of informal enterprises for own final use; (iii) unpaid volunteer/informal domestic and care-giving services to other households; and (iv) production of housing services by owner-occupiers (imputed rents of owner-occupied housing).

27. A satellite account enables focused attention on an aspect of economic or social life (e.g. non-market work performed by women) in the context of the national accounts. Construction and analysis of the outcome of NSAHP, which are Input-Output tables of household production using gender disaggregated data, as well as their integration into standard Input-Output tables or social accounting matrices (SAMs) to make these frameworks not only gender responsive, but representative of the total economy (non-market and market economies) signify the actual process of mainstreaming gender in national accounts, budgets and policies.

28. Thus, NSAHP is the main framework for mainstreaming gender in national accounts, budgets and policies. National accounts are a set of aggregate accounts on the value and breakdown of all income and output of an economy. Accordingly, national accounts measure
Gross National Income (GNI), Gross Domestic Product (GDP) and Gross National Product (GNP) and the contributions of different sectors including unpaid market work. However, the 1993 System of National Accounts, which is the standard system used by almost all countries, does not include NSAHP.

30. Because women dominate most of GHP, which is not measured within the central SNA framework, recommendation of standards for measuring those services would promote gender mainstreaming into national accounts and policies. Therefore, the estimation of GHP on the basis of an agreed methodology would contribute to increasing the analytical value and the availability of such information for policy makers. In order to achieve better quality comparable national accounts data, supplemented and supported by national accounts of household production, African countries should formulate a uniform approach for implementation. The availability of reliable data from time-use and household budget surveys is another prerequisite for preparing these household accounts. Household surveys also need to reflect the specific characteristics and demands of the various countries and regions of Africa.

PART III: ECONOMIC POLICY, POVERTY REDUCTION AND GOVERNMENT BUDGETS

31. This part explains in more detail the important linkages of household production to macroeconomic policy. It provides insights into the ways in which a wider vision of production and work can guide policy in promoting greater gender equity. The final module explains how the government budget can be used as an important tool of macroeconomic policy to enhance both women’s and men’s contributions to the total economic system and to poverty reduction and welfare enhancement.

Module 5: Policy Strategies on Household Production

32. Six policy strategies for a national policy on household production are outlined. All start from the first – the creation of modern, vigorous and up-to-date gender responsive national statistical systems throughout Africa. New, improved, reliable data flowing from the modernisation of Africa’s statistics can then be used as a guide to policies that will enhance total work – both paid and unpaid – and total income – monetary and non-monetary. Only a balanced development of both the household economy and the market economy can lead to an improvement in the well-being and quality of life of women, men and children in Africa.

33. Partly because of inadequate data and partly because of entrenched inertia, macroeconomic policies in Africa, as in many other countries, tend to have a gender bias
favouring men and boys rather than women and girls. The module provides a guide as to how macroeconomic policies can be used to reduce this gender bias and how a continuous monitoring of national policies on household production can be maintained.

Module 6  Impacts of National Policies on Poverty Reduction and Welfare

34. This module provides a guide to understanding the implications of integrating household production into national policies on welfare and poverty reduction. It demonstrates the applications of statistics on household production in national accounts systems and identifies policy options, responses and advocacy channels to promote gender equality by integrating household production in the development process.
Module 7: Integration of Household Production in Government Budgets

35. Gender-aware government budgets can be regarded as gender audits of budgets to ensure that:

- Public expenditure priorities are consistent with development policies that observe equal opportunities policies and allocations within government services.
- Overall budget framework is pro-poor;
- Resources are allocated to priority investments that respond to the needs of both women and men including gender-targeted allocations (e.g., special programmes targeting women); and
- Impacts of mainstream expenditures across all sectors and services benefit both women and men through budget tracking processes.

36. Government budgets are particularly important in redressing the heavy time burden on women. Gender Responsive Budgets (GRBs) can have a significant impact on the heavy time burden of domestic work. These measures include improvements in accessibility to energy and water, intermediate transport, labour-saving technologies across the full range of domestic and productive household tasks. These improvements are especially critical for women and can promote a better gender balance in both domestic and market work. Reducing this time burden means increasing labour productivity in the household economy and hence reducing poverty. Thus, it is important for poverty analysis to include gender-based time budget analysis, and to give the highest priority to measures that save time.

37. Both women’s and men’s contributions to total economic production are undervalued, but women’s more so than men’s. Because it is unmeasured, policy makers ignore the vital contribution to economic welfare of both women and men through household production when they elaborate government budgets. Incomplete and misleading economic information is likely to lead to sub-optimal policies through government budgets. To counteract this situation there is a need to increase the visibility and to demonstrate the importance of household production to budget policy makers. Better, more complete statistics should lead to better, more complete policies.
Overview and Aims

38. The present economic accounts and economic statistics on work and employment purposely, incorrectly and dangerously make the unpaid work on the production of services for own consumption within households invisible and of no value. The world has come close to saying that unless cash or credit cards are used to pay for services they are of no value and hence are unworthy of consideration. The official statisticians say to the world every time they issue the national accounts and the employment statistics, “Ignore the household economy, it is of no consequence.” (Ironmonger, 1993)

39. Recognition of household production is a matter of social justice and relates to human rights. All people who carry out unpaid household work and are not accounted for in national statistics of work and economic activity are, for this reason, often considered to be second-class citizens. Unfortunately, it is mainly the particular category of paid work that gives identity and citizenship to individuals. As household production is not regarded as contributing to economic utility, and as women mainly perform these activities, women without a paid job are not thus the given public recognition. The semi-private roles of women as the main workers in household production leads society to exclude women from public responsibilities, to deny them the rights of citizens and in particular to the entitlement to socio-economic rights that are recognised by international and regional conventions. Such rights include access to and control over economic resources (access to property, to inheritance, to sharing of acquisitions during marital life). Consequently, the adoption of measures for recognising household production as an essential economic activity is a step towards gender equality and the recognition of all people’s entitlement to fundamental rights.

40. The underestimation of women’s work in the labour force statistics and national income has been discussed repeatedly since the 1970s. This underestimation has been categorised as occurring in four general areas of activity: subsistence production, informal paid work, domestic production and volunteer work (Beneria, 1992). While the first two problems are thought to be surmountable through designing more comprehensive and accurate methods of data collection (conceptual issues being minor especially for subsistence production), the last two require clarification at the conceptual and definitional level itself.

41. The United Nations, through the Beijing Platform for Action (1995) has identified household production as a key area of policy intervention for improving the situation of all those, especially women, who work in the household economy (ECA, 2002). This international commitment including the Millennium Development Goals (MDGs) and the more recent New Partnership for Africa’s Development (NEPAD) can only be implemented through changes at the national level.

38. First of all, the development and monitoring of the progress of social and economic policies requires a thorough knowledge of at least three things (Ironmonger 1999). These are:

- how social and economic systems operate
- the past, current and future evolution of systems under present and proposed policies

1 NEPAD is an initiative developed by African leaders based on a common vision and a firm and shared conviction and realisation that eradication of poverty is imperative if African countries, individually and collectively, are to plan a path of sustainable development and be globally competitive. The long-term objective of NEPAD is to eradicate poverty in Africa and to promote the role of women in all activities including poverty reduction.
42. In developed countries with the advancement of social and economic theory and especially the development of social and economic statistics, a broad understanding of the ways in which social and economic systems operate in different environments has been accumulated. In some of these countries the impacts of policies on households and people are calculated before implementation. However in African countries, reliable tested, knowledge of these three things has been and is extremely difficult to obtain. Thus, the presently available statistics that are used to help understand, evaluate and monitor systems, policies and people are inadequate. This is not news; all researchers and policy makers would like to have more and better data.

43. But it is now realised that the main economic statistics used in research and policy making in African countries - the national accounts and the official statistics of work are vastly incomplete. The starting point is to produce new national official statistics of work and production of the household economy and to integrate these new statistics into the presently understated statistics of work, production, income and expenditure. These new statistics can then be used to enlarge the scope of macroeconomic policy and to change the orientation of national budgets.

44. Macroeconomic policy omits women's (and men's) household production from its scope of inquiry. This is not an omission simply due to complexities of measurement, but reflects assumptions built into macroeconomic models. Work by Elson (1996) observes that ignoring household production may affect macroeconomic policy through, for example, constraining labour mobility and supply responses. Macroeconomic policy makers will be more effective and efficient when drafting national economic strategies through such tools as the national accounts and the national budgets if they recognise and use statistics on household production.

45. Feminist economists have called attention to the serious neglect of the non-market household economy. They point to the fact that mainstream economic theory views labour as a non-produced input and thus disregards the role of unpaid labour in social reproduction, and in household and community work (Cagatay, 1995). Further, the neglect of the household (care) economy is reflected in the dominance of the male breadwinner model, which has shaped much of social policy in industrialised and developing countries.

46. The underestimation of women's work in the labour force statistics and national income has been discussed repeatedly since the 1970s. This underestimation has been categorised as occurring in four general areas of activity: subsistence production, informal paid work, domestic production and volunteer work (Beneria, 1992). While the first two problems are thought to be surmountable through designing more comprehensive and accurate methods of data collection (conceptual issues being minor especially for subsistence production), the last two require clarification at the conceptual and definitional level itself.

47. The UN Statistical Commission recommended that national statistical offices prepare accounts for household production — economic activities that are outside the current production boundary (Ironmonger, 1996:38). These accounts can be based on time-use surveys. Although time-use surveys are now carried out on a regular basis in many developed countries, they have only recently been tested in a number of developing countries with the
support of the United Nations Development Programme (UNDP). In Africa the countries involved include: Benin and Morocco in 1998, Nigeria in 1999, South Africa in 2000, Madagascar in 2002 and Mauritius in 2003. It is expected that more countries in Africa will soon be embarking on time-use studies to obtain better measures of women’s and men’s unpaid work, and to help with the implementation of the 1993 SNA. However, the imperative is to interpret time-use data and thereby reach optimal policy conclusions.

48. The 1995 Human Development Report demonstrated that “human development, if not engendered, is endangered”, a conclusion that turned into a powerful slogan. Ignoring household production is the main reason for the invisibility and the subsequent neglect of women’s role in development, but it is not the only one. Another reason is that poor statistical systems lead to under-recording and under-reporting of women’s work in the subsistence production and informal sectors of the market economy. It is the aim of this Guidebook to examine how this situation may be greatly improved in Africa.

Aims:

- To understand gender perspectives of work, household production and the household economy
- To understand the components of Production in the Household Economy
- To understand the rationale and opportunities for including gender perspectives and household production and services in national statistics including national accounts.
Module 1: Household Production and the Household Economy

Definitions and Concepts

1.1 What is Household Production?

49. A **household** is defined as a small group of persons who share the same living accommodation, who pool some or all of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food (SNA 4.132 [4.20], 1993). A single person living alone is also a household.

50. **Household production**: The term is used to refer to services produced within the household by its members for their own use by combining their unpaid labour and their own capital equipment with purchased inputs of goods and services from the market (OECD 1995). The household uses these services outputs without making a monetary payment. Hence it can be called **household non-market production**. It also includes these services when they are provided to other households without payment.

51. Production of **goods** by households for their own use using their own unpaid labour and capital could be called **household market production** because these outputs are included in the national accounts estimates of production by the market economy, even though no monetary payments are made within the household for the use of these goods. Throughout this Guide the term household production is synonymous with household non-market production of services.

52. The process of household production in African countries includes the transformation of purchased intermediate commodities (for example, supermarket groceries and power-utility electricity) into final consumption commodities (meals and clean clothes). Households use their own capital (kitchen equipment, tables and chairs, kitchen and dining room space) and their own labour (hours spent in shopping, cooking, laundry and ironing). Also, many millions of households use their own capital and unpaid labor by way of fishing, collecting wood and water, growing vegetables and other food, building shelter and making clothing. Thus **subsistence production** fits the definition of household production when the goods produced are used within the household that produced them.

53. However, the wood, water, food, fibre and clothing outputs from subsistence production could be sold on the market to other households or to business enterprises. When such commodities are in fact sold, the value added in their production conceptually becomes part of market production.

54. The total economic value added by households in household production has been aptly named **Gross Household Product (GHP)** (Eisner, 1989; Ironmonger, 1996).

55. **The household economy** describes the collective economic activities of households. The household economy can be defined as the system that uses the unpaid labour and capital of households to produce services for own consumption and that allocates home produce and purchased goods and services for use within households. In general, market substitutes for
these services are available for purchase from the market, so household production can be said to produce tradable commodities, even though the actual services produced are not sold.

56. Often the household economy is called the household sector as distinct from the business, government and foreign sectors. In national accounts, the household sector consists of all resident households. These include institutional households made up of persons living in hospitals, convicts, prisons etc. for long periods. Since data on activities of institutional households are usually difficult to get, they are not covered in household production accounts. This omission is expected not to cause a serious bias because the amount of household production or voluntary work done in these institutions is likely to be insignificant. However, the household sector is large enough to deserve the term household economy. The rest of the economy can then be called the market economy. Thus, the transactions between the household and the market are perhaps more akin to international trade between two economies than transactions between different industrial sectors of a single economy. The two major types of inter-economy trade are the sale of labour time by the household and the sale of household goods and services by the market.

57. Households as producers: With few exceptions, economic textbooks focus on households as consumers and fail to discuss households as producers using their own labour and capital. Households are presented to the modern student of economics at school or university as places of consumption. Economic theory focuses on consumer behaviour, which concerns the choice of households on the quantities of the commodities they choose to buy given the limitations of their money incomes and the prices of commodities. With few exceptions, economic textbooks fail to discuss the allocation of time available to various processes of household production. They also fail to mention that household expenditures often are not purchases of goods ready to be consumed but are capital equipment, unfinished goods, raw materials and energy to be used as inputs to a production process.

58. Margaret Reid (Economics of Household Production, 1934) played a significant role in the development of household economics as a discipline, particularly for curricula in some North American universities. She held that, although the household is our most important economic institution, the interest of economists was concentrated on "that part of the economic system which is organized on a price basis".

59. Reid is regarded as the first writer to specify the often-used third person criterion to distinguish between productive and non-productive (consumption) activities. Her test was: "If an activity is of such character that it might be delegated to a paid worker, then that activity shall be deemed productive." (Reid, 1934, p.11) Thus preparing a meal is productive work but eating it is non-productive consumption or leisure.

60. The Cambridge economist, Alfred Marshall, as early as 1879, stressed the 'third party' criterion for defining the extended notion of work: "all other services which one person may be hired to perform for another" in his Economics of Industry (1879). Later on, Pigou (1920) emphasised the paradox of the gentleman who lowers the national welfare when he marries his maid. Margaret Reid, in her Economics of Household Production (1934), put the 'third party' criterion into the discussion among economists. Following these orientations, some of the economists who founded the national accounts, addressed the issue of housework valuation (Kuznets, 1941; Clark, 1958), but it was up to Gary Becker's (1965) theoretical works to root them into the framework of economic theory.
61. For Becker, households are not only consumers but also producers: according to the traditional theory of consumer choice, households seek to maximise utility through the consumption of goods and services. In contrast, Becker postulated that these goods and services are not ready to be consumed, they have to be transformed into commodities, which are produced by combining time (labour) and goods. It was such a definition of household production provided the bases for further recommendations on estimating the significance of unpaid work in household production by the UN Report on the Decade for Women (1985), the World Summit for Social Development (Copenhagen, 1995) and the 4th World Conference on Women (Beijing, 1995). These reconsiderations paved the way for wider data collection methods such as time-use surveys and for more elaborate research on household production.

62. A further problem is that production almost always requires a contribution from capital as well as from labour. Thus, the third person criterion needs to be extended to include services that might be obtained from rented capital as well as from a paid worker. Thus, accommodation services provided by a household’s own dwelling are production; so are the transport services provided by a household’s own vehicles and the entertainment services provided by a household’s own sound and vision equipment. This extends the range of household production considered by Reid in 1934 and mostly since then by other writers.

63. The expanded market alternative criterion would be: “An activity shall be deemed productive if it is of such a character that it might be obtained by hiring a worker or by renting capital equipment from the market.” (Ironmonger, 2000, p. 6936) Unfortunately, neither Reid nor Becker has had much of an impact on mainstream economic thinking about the household economy. Economic theory and economic statistics continue to portray households as places only of consumption and leisure, with production of goods and services occurring only in business or public enterprises.

64. The new household economics: In the mid 1960s a major theoretical development known as the “new household economics” took place. (Becker (1981), Ironmonger (1972) and Lancaster (1971). In this theory the household is regarded as a productive sector with household activities modelled as a series of industries.

65. In this new approach, households produce commodities that are designed to satisfy separate wants such as thirst, hunger, warmth and shelter. The characteristics, or want-satisfying qualities, of the commodities used and produced can be regarded as defining the production and consumption technology of households. With changes in incomes and prices, households still alter expenditures as in the earlier theory. However, in the new theory, households adjust their behaviour as they discover the new commodities and their usefulness in household production processes.

66. The activities approach derived from the theory of the new household economics readily combines with the earlier input-output approach of Leontief (1941) to establish a series of household input-output tables as the framework for modelling household production.

67. All the output of services that households produce for their own use can be included within the following five principal services –
  - Accommodation (Housing, shelter and private space for rest and recreation)
  - Nutrition (Food, meals snacks and drinks)
  - Clothing (Clean clothes and laundry)
Care and Nurture (Education and care of children, the sick, disabled and elderly)
Transport (Motorised and other vehicles).

Other productive activities of households for their own use such as cleaning and shopping are ancillary activities that provide inputs into these five principal outputs of household production.²

68. The accommodation, meals, clean clothes, care and transport are produced and consumed by household members without payment for the outputs and without monetary remuneration of the individuals doing the production. The production and consumption is thus neither sold nor purchased for money. Household production takes place without specific monetary transactions. As people sleep, eat, obtain clean clothes and care in their own households they do not and are not expected to make instant payment for these services. This is in sharp contrast to the market where these services can only be obtained in return for cash or credit card.

69. The household economy has both a production role and an allocation role – households determine who gets what within households. Although the allocation role should not be ignored, most discussion of the household economy concentrates on the production activities or “household industries”. (Ironmonger, 1993)

70. It is important to note the inclusion of household capital contributes to the economic production activities of the household economy. The value added in household production includes the value of the services rendered by capital items owned by households. This includes clothing, household equipment, furniture, kitchen utensils, vehicles, housing and shelter. The value of the services rendered by these capital items needs to be included in measuring household production, not only the value of the services provided by the human capital of households.

71. One of the key concepts in the national accounts is that of production. The set of rules that has been developed to determine what is to be included as production and what is to be excluded in the estimation of GDP is the production boundary. First of all, the production boundary determines what is to be included in the accounts as output. Second, because the 1993 SNA recognises only uses of produced goods and services, the boundary also determines the scope of intermediate consumption — goods and services consumed as inputs in the process of production excluding fixed assets, and thus it also determines value added. Value added is the value of output less the value of intermediate consumption. It is a measure of the contribution to GDP by an individual producer, industry or sector.

1.2 How Large is the Household Economy?

72. Time use studies show that people use significant amounts of time in producing goods and services in households. Estimates of the value of household work as a proportion of GDP has varied between 35-55%. A recent UN report on measures of unrecorded economic activities in 14 countries (Goldschmidt-Clermont and Pagnossin-Aligiasakis 1995) shows that unpaid work in households is of the same magnitude as paid work in the market. The non-SNA

² In some of the literature, work has been classified as either “productive” or “reproductive”. Productive work includes activities that produce goods and services for market exchange. These activities may be carried out in the workplace, at home and in the formal or informal sectors. Reproductive work refers to childbearing activities and other activities carried out in caring for household members and the community.
economic activities across the 12 OECD countries included in the report amounted to 12 billion hours a week; SNA economic activities amounted to only 11 billion hours (Ironmonger 1996, Table 4, p. 46).

73. The production of services for own consumption by households is a continuing large and growing part of the total economic system. It is most usefully considered as a separate economy, which is on an equal footing with the market economy. "The total economy is a two-legged animal, with a market leg and a household leg. Both are necessary for the economy to stand up, to walk and to run." (Ironmonger, 1993)

74. The following table, using data from the time-use surveys module of Part II of this Guide, indicates the relative use of human capital in the household and market economies of a developing African country (Benin in 1998) and a developed OECD country (France in 1999). Data are not readily available to show the use of non-human capital in these economies.

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Rural Benin</th>
<th>Urban Benin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Economy Work (In GHP)</td>
<td>15.2</td>
<td>15.2</td>
<td>24.0</td>
</tr>
<tr>
<td>Market Economy Work (In GMP)</td>
<td>34.4</td>
<td>27.4</td>
<td>17.8</td>
</tr>
<tr>
<td>Total Economic Work (In GEP)</td>
<td>49.6</td>
<td>42.6</td>
<td>41.8</td>
</tr>
</tbody>
</table>

75. Several extremely important messages can be drawn from these data. The first is that in all three economies, total economic work is far in excess of market work. Statistics of just market work are clearly a huge understatement of the total use of the human resources to run both legs of the total economic system. The second message is that, as economic development proceeds, both market work and total work decline. More efficient production systems and greater use of physical capital in Urban Benin and in France allow the time burden of work in an economy such as Rural Benin to be reduced.

76. The third, and perhaps most surprising, message from these data is that the household economy in France absorbs a larger amount of labour time than in both Rural and Urban Benin. This phenomenon, the growth (as development takes place) of the household economy at a faster rate than the market economy, is confirmed by other international comparisons, such as that between Rural and Urban India and Australia (Ironmonger, 2002).

1.3 What are the Gender Divisions of Work in the Household Economy?

77. The position of women in comparison with men in the process of development is illustrated by Table 2, also drawn from the data in the time-use surveys module of Part II of the Guide.

<table>
<thead>
<tr>
<th></th>
<th>Rural Benin</th>
<th>Urban Benin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of Work per Week for Women and Men:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benin (1998) and France (1999)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: Economic Work by Gender and Location

<table>
<thead>
<tr>
<th>Economic Work Type</th>
<th>Rural Benin</th>
<th>Urban Benin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Economy Work (in GHP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>22.7</td>
<td>22.7</td>
</tr>
<tr>
<td>Men</td>
<td>7.6</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Market Economy Work (in GMP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>35.6</td>
<td>27.4</td>
</tr>
<tr>
<td>Men</td>
<td>33.2</td>
<td>27.4</td>
</tr>
<tr>
<td><strong>Total Economic Work (in GEP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>58.3</td>
<td>50.2</td>
</tr>
<tr>
<td>Men</td>
<td>40.8</td>
<td>34.4</td>
</tr>
</tbody>
</table>

78. The main message from Table 2 is that, even in a highly developed country (such as France), women supply the greatest quantity of the time required to run the household economy. Although, on average, men in France supply more than twice the amount of time to run the household economy (16.8 hours per week (hpw)) than men in Benin (7.0 to 7.6 hpw), women in France supply 8.0 hpw more to this function than do women in Benin.

79. Recognising the invisible household economy as an economic producer boosts the total amount of economic work done by women in Rural Benin from 36 to 58 hpw, in Urban Benin from 27 to 50 hpw and in France from 13 to over 43 hpw.

80. As has been demonstrated by countless time-use surveys over the last 40 years, both women’s and men’s economic contributions are grossly understated by official statistics that count employment and work only by the criterion of market production. In Benin, women’s economic contributions are understated by 40 per cent and men’s are understated by 20 per cent. In France, the contributions are even more understated – women’s by 70 per cent and men’s by more than 40 per cent.

81. So the invisibility of the household economy (in most official statistics of work and production) is a grossly misleading injustice not only to women but also to men.

### 1.4 What are the Components of Production in the Market Economy?

82. Within the definition of the production boundary of the SNA, the gross value of the output of market goods and services consists of two items:
- the cost of the value of goods and services used for production (intermediate inputs)
- the value added by the factors of production (labour and capital).

83. Economics conceptualises value added in production as deriving from “factors of production”. Initially, economists categorised these factors as land, labour and capital. Currently, economics considers only two factors of production, labour and capital, with land being part of “capital”. Both of these factors are in fact capital – human capital and non-human or “physical” capital.
84. The total value added by the factors of production can be allocated to labour and capital in various ways according to principles operating in the production units. In units where wage labour is employed, the value added by the employees is taken as the wage compensation paid to them (compensation to labour). The remaining operating surplus (or loss) is taken as the positive (or negative) (return to physical and financial assets used in production.) In units, such as unincorporated family businesses or partnerships, where there are no wage employees the total value added by the factors of production is called mixed income (imputed compensation for the labour of the operator and the contributing family workers and returns to physical and financial assets used for production).

85. The following diagram clarifies the dividing line between the Market Economy (SNA production) and the Household Economy (non-SNA production). The 1993 SNA made it clear that all production of goods was to be put in the production and it left the cut-off line dividing SNA and non-SNA activities in the services sector where the division principle is the devolution of the service to own final use (and not: to the market or not to the market, because government and non-profit institutions services are exceptions). The care economy is comprised of the two bottom lines of the diagram.

Diagram 1: SNA and non SNA production in the System of National Accounts.

<table>
<thead>
<tr>
<th>Production</th>
<th>Goods</th>
<th>Market</th>
<th>All goods, including fetching water and firewood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non market</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td>Market</td>
<td>All marketed services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Government services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Non-profit institutions services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Paid domestic services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non market</td>
<td>Imputed rents of owner-occupied housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Own final use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volunteer work</td>
</tr>
</tbody>
</table>

Note: SNA production is in grey, and the two bottom lines represent household production outside SNA.
1.5 What are the Components of Production in the Household Economy?

86. Household production and Gross Household Product (GHP), as defined in this Guidebook, comprises three items:

1. **Non-SNA work providing unpaid services for own final use**
   - Work providing unpaid domestic services for own final use within household (cleaning, decoration, maintenance of dwelling occupied by the household; preparation & serving of meals; transportation of members of the household & their goods).
   - Work providing unpaid care-giving services to household members (care, training and instruction of children; care of the sick, infirm or old).

2. **Non-SNA work providing unpaid domestic services, care giving services and volunteer services to other households, community, non-profit institutions serving households (NPISH):**
   - Informal help to neighbours and relatives;
   - "Informal/unorganized" volunteer and community work through neighbourhood and informal community associations;
   - "Formal/organized" volunteer and community work through the Red Cross, welfare organizations, professional organizations, churches, clubs and others (NPISH).

3. **SNA informal sector household production of unpaid goods and services for own final use by unincorporated enterprises owned by households (subsistence production and other kinds of informal enterprises):**
   - The production of agricultural products and subsequent storage, wood-cutting and collection of firewood, hunting and fishing;
   - The production of other primary products (e.g. mining salt, the supply of water etc.)
   - The processing of agricultural products: (grain threshing; production of flour by milling; the preservation of meat and fish products; the production of beer, wine or spirit; the production of baskets and mats).
   - Other kinds of processing (weaving cloth, dress making and tailoring, the production of footwear, the production of pottery, furniture etc.

4. **SNA Household production of unpaid services for own final use:**
   - paid domestic services;
   - production of housing services for own final consumption by owner-occupiers (imputed rents)

Source: SNA, 1993 §6.24

87. When estimates are made of GHP, the third category is subtracted from the GDP/GMP estimates and included in the estimates of GHP. The reduced GDP/GNP estimates are then known as Gross Market Product (GMP).³

88. Data from time-use surveys reveal the extent to which the various unpaid activities of household production complement the various productive activities of market production. The data can be shown not only as hours per adult per week (as in Tables 1 and 2) of this module but also in millions of hours per week for the whole economic system. The Australian data for 1997 show labour time of more than 500 million hours per week (Mhw) were devoted to household production. In contrast only about 300 Mhw were required to operate all the industries of the market economy.

³ Technically there would be two versions of GMP, one an adjusted GDP and the other an adjusted GNP.
89. In addition to these three types of production there is a fourth category of productive activities by households that is not marketed and is produced without monetary remuneration of the household members engaged in this production. This is:
Table 3 Household Production, Australia, 1997, Hours worked (million hours per week)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Women</th>
<th>Men</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child care</td>
<td>139</td>
<td>56</td>
<td>195</td>
</tr>
<tr>
<td>Meal preparation</td>
<td>61</td>
<td>22</td>
<td>83</td>
</tr>
<tr>
<td>Shopping</td>
<td>46</td>
<td>29</td>
<td>75</td>
</tr>
<tr>
<td>Laundry and Cleaning</td>
<td>61</td>
<td>12</td>
<td>73</td>
</tr>
<tr>
<td>Voluntary community work</td>
<td>30</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Gardening</td>
<td>20</td>
<td>23</td>
<td>43</td>
</tr>
<tr>
<td>Other household chores</td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>4</td>
<td>15</td>
<td>19</td>
</tr>
</tbody>
</table>

Total unpaid work                  | 373   | 189 | 562    |

Source: Ironmonger (2004) Figure 5.2 p. 106 (derived from data from the Australian Bureau of Statistics)

Table 4 Market Production, Australia, 1997, Hours worked (million hours per week)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Women</th>
<th>Men</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale and retail trade</td>
<td>21</td>
<td>37</td>
<td>58</td>
</tr>
<tr>
<td>Community services</td>
<td>30</td>
<td>16</td>
<td>46</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>10</td>
<td>34</td>
<td>44</td>
</tr>
<tr>
<td>Finance and business services</td>
<td>17</td>
<td>26</td>
<td>43</td>
</tr>
<tr>
<td>Entertainment and recreation</td>
<td>11</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>Other market industries</td>
<td>10</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Construction</td>
<td>2</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Agriculture</td>
<td>4</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>3</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Mining</td>
<td>&lt;1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total paid work                   | 109   | 194 | 303    |

Source: Ironmonger (2004) Figure 5.2 p. 106 (derived from data from the Australian Bureau of Statistics)

90. In broad terms, this category of production is known as Subsistence Production, or Subsistence Agriculture. In developing countries this type of production occupies a large proportion of the time of households and uses a large proportion of their land and other physical resources. However, whether used directly by households or sold to other households, all the production of the goods is included within the estimates of production within the System of National Accounts (SNA).

91. The difficulties in separating un-marketed subsistence production from the production of marketed production of these commodities in general have precluded national accountants from making separate estimates of this component of the national accounts. It is a simpler task to count and value all production of these agricultural and other goods without
attempting to separate those sold to other households from those used within the same household.
1.6 Why Measure Household Production?

92. In the 1970s a number of writers drew attention to the macroeconomic magnitude of the household economy. Boulding (1972) conceptualised households not only as the main driving force for the market economy, with household purchases covering about 60 per cent of GNP, but also as the most important agent in the grants economy. This is the economy of one-way transfers, grants or gifts, given mainly within households from those earning money incomes to other members, children, spouses and dependants not earning a money income.

93. Research on inter-household transfers by Morgan and Baerwaldt (1971) showed that transfers within households in the United States were over $300 billion, three times the transfers of $90 billion from governments and private charity. The additional income created and transferred through household production would probably double the magnitude of these estimates of inter-family transfers (Ironmonger, 2001).

94. In a perceptive book, the *Household Economy*, the American writer Scott Burns (1977) observed “the hours of work done outside the money economy rival those done inside and will soon surpass them” (p.8). Burns saw the household as the strongest and most important economic institution - healthy, stable and growing. It also leads governments to support unpaid household-based care of sick, disabled and elderly people instead of professional care in hospitals and nursing homes. Taxation of paid labour helps drive these technology and policy changes.

95. Luisella Goldshmidt-Clermont sorts out the following nine uses for household economy measurements:

- To fill a statistical gap and to produce extended labour statistics and extended production accounts
- To monitor changes in the allocation of extended labour resources and to monitor actual economic growth
- To ensure that government policies help non-market household production to be allocated an amount of productive resources commensurate with its economic significance
- To identify the least productive activities and to introduce more satisfactory technologies
- To help formulate labour market polices and for labour market planning
- To establish household income comparison, to measure standards of living and to formulate welfare policies
- To help ensure that unpaid household workers are granted the social status and social benefits enjoyed by other workers
- To help formulate population policies
- To promote appropriate legislation, to protect women’s economic status and to assist courts in financial settlements (Goldshmidt-Clermont, 1987b).

96. Exclusion of household production in the GDP/GNP estimates perpetuates the incomplete and inaccurate picture of total economic activity. It causes levels of GDP give an inaccurate impression of the total economic size of country and impedes international or regional comparisons. This is important where, for example, monetary contributions made or received by a country depend on its GDP, or when poverty is measured by GDP per head.
97. Estimates of Gross Economic Product (GEP), the sum of GHP and GMP, will be larger than the current GDP/GNP estimates. The relative rankings of countries will be different. However, as a broad proposition, the data indicate that as countries develop GHP grows faster than GMP. Thus the more developed countries have higher relative GEP than they have GMP. Put the other way, the less-developed countries of the world are relatively poorer according to estimates of GEP than they are according to the incomplete GDP/GNP/GNI measures of economic production and income.

98. Household production is of itself both micro and macro economic activity. What happens in the household affects the market economy and what happens in the market affects the household. Both are affected by macroeconomic policies. Annual and quarterly data series on the household economy would allow us to measure the existing links between it and the market economy. For example, during periods of economic recession and crisis, declining money incomes, rising unemployment, and increases in unpaid work in household production could intensify gender inequalities and restrict women's access to market work opportunities.

99. Recent research showed that cutbacks in national budgets through cutbacks in social services increase unpaid time spent on care work. Reductions in subsidies for foodstuffs may result in women (who usually provide food) spending more time looking for cheaper substitutes. Research in developing countries under structural adjustment programmes also showed that cuts in health, family planning and other social services increases the burden of unpaid home care and services on women. Thus, what may be seen as an increase in productivity or efficiency in the market economy is actually a shift of costs from the market to the household economy. These include the time costs of those who provide the unpaid work and their loss of education, health and well being.

100. Household production is both complementary to and in competition with market production: meeting greater demands for household production may jeopardise ability to supply more paid work, and vice-versa. This may be one explanation for poor supply responses to some adjustment programmes. Unpaid labour may assist in absorbing the shocks of adjustment. For example, unpaid labour may be substituted for paid labour in the production of food and clothing produced in the home instead of purchased from the market. Voluntary labour may be mobilised in community self-help schemes when public expenditures are cut.

101. A discrepancy exists between women's economic contribution and their control over economic resources. A large proportion of both women’s and men’s work has remained invisible, but women's relatively more so than men's. When this invisible work of household production is valued it will reflect more realistic estimates of total economic production by taking into account all household productive activities. This would enhance women’s relative economic status in a positive direction. The household economy not only perpetuates itself, it also underpins the market economy with a significant contribution to money income generation, long-term growth and poverty reduction by supplying human and social capital labour to the market economy. The household is where women do the major work to prepare children to become future workers in both the market and the household economy. However, it spite of this essential economic role in building and maintaining human capital, women still have less access to money income and assets, less wealth and less control over the market economic processes to which they contribute so much.

1.7 Deficiencies in National Statistics of Work and Production
102. During the last half-century an almost unrecognised statistical revolution has taken place. At its heart has been the System of National Accounts (SNA), which has been developed by economists and economic statisticians to provide summary measures of economic performance. Amongst the most important are the quarterly estimates of Gross Domestic Product (GDP) and Gross National Product (GNP). Governments now spend millions of dollars collecting and publishing regular quarterly statistics of GDP and of the numbers employed in this production. The regular publication of standardized data on these variables permits comparison not only through time but also between nations (Ironmonger 2001). Statistics of GDP and employment are not only the common discourse of economists but have been elevated universally as major tools of economic and social policy including those operating at the international level through the International Labour Office, the International Monetary Fund and the World Bank.

103. With few exceptions, the national statistics of work and production continue to ignore the unpaid labour and economic output contributed by women (and men) through household production. At least two-thirds of the work and economic production of women, half of the world’s adult population, is excluded. Increasingly it has been realized that the major sets of statistics currently used to measure work and valuable production are very incomplete and consequently quite misleading. The economic statistics of work and production are used extensively in framing public policy and in business decision-making.

104. Discussion of public issues such as gender equality, labour market policies, wages and income policies, to name a few, are statistically misinformed. Thus the current understanding, definition and measurement of the activities of work and production are of crucial importance. New measures are required to produce more accurate statistical picture of economic activities.

105. It is well known that, with one major exception, the imputed rental value of owner occupied housing, the SNA definitions used to measure production cover market transactions only. The estimates of GDP and GNP exclude household production. The estimates also make no allowance for the destruction of natural resources. These omissions have been much criticized by the women’s and environmental movements. Consequently, the UN Statistical Commission, in the 1993 revision of the SNA, has recommended that national statistical offices prepare accounts for economic activities outside the presently defined production boundary. “Satellite” accounts separate from, but consistent with, the main SNA accounts of the market economy can be prepared to show the use of natural resources or the extent of economic production by households.

106. Demands for the full recognition of women’s economic production culminated in the Platform for Action adopted in September 1995 at the Fourth World Conference on Women in Beijing. It enjoined “national, regional and international statistical services and relevant governmental and United Nations agencies” to develop a more comprehensive knowledge of all forms of work and employment.

1.8 What are the Solutions to the Generation and Use of Gender Disaggregated Data in Policy Making?

107. Prospects for effectively generating and applying GDD in development process including poverty reduction strategies would require several interrelated steps.
- Officially recognizing the household economy as part of the total national economy to be measured and integrated into the System of National Accounts;
- Reform the national statistical system to introduce regular TUS and CHS to generate vital gender-disaggregated data;
- Develop tools and methodologies to generate and use GDD from time use surveys (TUS) and other household surveys;
- Build the capacity of national experts to master and use tools and methodologies developed;
- Based on the GDD, prepare National satellite Accounts of Household Production (NSAHP) and Gross Domestic Product (GHP);
- Foster collaboration between national machineries responsible for the production of statistics
- From the NSAHP and GHP, develop policy strategies for integrating gender perspectives and household production into national policies;
- Also from the NSAHP and GHP prepare gender-responsive government budgets;
- Simultaneously, based on the GDD from TUS and other household data, construct both gender-aware macroeconomic models of the total economy – both household and market – and for gender-aware micro-simulation models on household production.

1.8 Need to Enlarge the International Definitions of Work

108. As a first priority in policy change towards generation of GDD, all development stakeholders in Africa need to change their thinking about what constitutes “work” and what encompasses “economic activity” (Latigo A and Ironmonger 2004). The present concepts for the measurement of work are based on the incomplete definition of activities within the “production boundary” of the SNA. The 1982 International Conference of Labour Statisticians (13th ICLS) resolution “concerning the economically active population, employment, unemployment and underemployment” unambiguously recalls that “the economically active population comprises all persons who furnish the supply of labour for the production of economic goods and services as defined by the SNA”.

109. Just as the limited production boundary of the SNA gives a very incomplete estimate of economic production, so the present ILO definition is an incomplete and an outdated concept as a measure of the productive work and employment of human capital. The current ILO definitions need augmentation by measures of work in the household economy. As Luisella Goldschmidt-Clermont and Elisabetta Pagnossin-Aligisakis clearly demonstrate in their report for the 1995 United Nations Human Development, the present SNA based measures of work are misleading.

"Time-use measurements clearly have the a potential for assessing the economic dimensions of human labour. Perhaps the most important indication they give is that, on average, the labour inputs into non-SNA activities are of the same order of magnitude as the labour inputs into SNA activities. Labour statistics however record only the latter: because of this enormous gap, labour statistics give a distorted image of how even industrialised societies utilise the available labour resources to achieve their standard of living.” (Goldschmidt-Clermont and Pagnossin-Aligisakis 1995. p 14)
110. The underestimation of women’s work in the labour force statistics and national income has been discussed repeatedly since the 1970s. This underestimation has been categorised as occurring in four general areas of activity: subsistence production, informal paid work, domestic production and volunteer work. The first two areas can be overcome through making the existing methods of data collection more comprehensive and more accurate methods of data collection. The last two need extension of data collection to cover these additional two areas of work.

111. The 13th ICLS, 1982 recognised three of the categories identified earlier, the contribution of persons engaged in household production (domestic and volunteer) and subsistence production. The Conference recommended that “while the extension of the concept of work for the measurement of the economically active population beyond the present production boundary of the SNA may tend to dilute the concept of the SNA, certain categories of persons not economically active but contributing to output and welfare should be recognised in a system of employment and related statistics and accounted for by separate statistics. Three such categories are homemakers, persons undertaking community and volunteer services and persons engaged in certain borderline subsistence activities.”

112. This use of the concept of “economic” as being synonymous with work in the market economy is extremely dangerous. It gives society the view that the household productive work is not “economic” work. Nothing could be further from the truth. In fact the word economic is derived from two Greek words “oikos” and “nomis” meaning “household management”. Thus, the ICLS still clings to the outmoded notion of the ‘production boundary’ in determining the concept of ‘economic activity’ or ‘work’. However, the ICLS does not yet concede that there is a need to measure specific categories of productive activities apart from those in paid work. Eventually it must concede that unpaid work in household production is economic work.
1.9 Separate Measurement Household Production

113. The idea is not to include household production in GDP but to measure it as a separate magnitude, GHP, and then obtain a better understanding how the two economies evolve, develop and interact with each other. It is highly likely that, once estimates of GHP become available, they will be seen to have highly significant value for analytic and policy purposes.

114. There is a broad misunderstanding among economists about the relative growth rates of the market economy and the household economy through time. More than 30 years ago Nordhaus and Tobin showed that economic growth rates have been over stated. They observed that “measured growth rates are considered biased upwards, as more and more women move into the labour market while decreasing their input in household production”. (Nordhaus and Tobin, 1973) However their analysis ignored (for lack of data) what growth in household production of services was taking place simultaneously with the growth of market production.

115. As development takes place, although a great deal of production of goods has been moved from subsistence agriculture to market industries, this production is not a transferred from non-SNA to SNA production. Subsistence agriculture is included within the SNA estimates. As household production time use and output data show, if time and other resources are released through development, households find opportunities for greater household production of other services. Households also make substantial investment in household capital further enhancing household production. The evidence suggests that, over a broad sweep to time, GHP grows faster than GMP. Thus GEP also grows faster than GMP. Put in other words, the present SNA based measures are not only under estimates of total economic production and income, they are also under estimates of the rates of growth of total economic production and income. (Ironmonger, 2002)

115. Another consequence of this result is that the present SNA based measures of income per head of population show less disparity or inequality between countries than would be shown by the more complete GEP based measures of income. The GEP measures in general would show poor countries to be relatively poorer and rich countries relatively richer. This is because there is relatively more household production in rich countries than in poor countries.

116. Ironmonger (1989) argued that market business cycles have their counterparts in household production: the market economy draws resources from the household economy in period of expansion and releases them in periods of decline. The household uses these resources for production of services in a counter-cyclical way to maintain aggregate services production and consumption. Consequently, the actual cyclical variability of total economic production as measured by GEP is less than the cyclical variability at present observed through the incomplete SNA based measures of GNP, GDP and GNI.

117. According to the United Nations Statistics Division (UNSD), the Inter-secretariat Working Group on National Accounts has started the updating of the SNA, a process to be completed by 2008. While a number of issues are under review, a revision and expansion of the production boundary is not intended. However, it is expected that the on-going work of ECA by assisting African countries to include separate measurement of household production will indeed contribute to the implementation of the UN 1993 SNA.
Part II
National Statistics of Work, Production and Households

Overview and Aims

118. Time-use data have been collected through household surveys since the 1930s. The Institute of Social and Economic Research (ISER) of the University of Essex has enumerated hundreds of them worldwide since the 1930s.

119. Over the years, collection of time-use data has been motivated by "an interest in conditions of human progress and curiosity about social change" (Bittman, 1999). But the earlier surveys were limited to very small samples in villages and focussed on allocation of time to work – especially agricultural work – rather than the time budget of the entire day. As such, the small sample size and the small population surveyed were not representative enough.

120. It is only recently that nation-wide time-use surveys (TUS) have become more common, especially following the recommendations of the UN Statistical Commission that national statistics offices prepare accounts to get better measures of women's unpaid work and help to implement the 1993 SNA (Ironmonger, 1996:38).

121. Thus, since 1995, time-use surveys were tested in at least 24 developing countries worldwide including: Benin and Morocco in 1998, Nigeria, India, Nepal and the Philippines in 1999, South Africa in 2000 and Madagascar in 2001. At least one official time-use survey has been conducted in Australia, Canada, Japan and New Zealand and in almost all European countries. Although geographically, economically, and culturally diverse these countries have realised that national time-use surveys are important statistical tools for the measurement and valuation of market and non-market work.

122. Current concern with time-use in developed countries is generally motivated by two objectives: the national accounting approach and the welfare approach. The national accounting approach aims to arrive at a better estimate of the value of goods and services to construct more complete national accounts. The welfare approach aims to develop a better picture of the quality of life. A 1995 DECO report (DECO, 1995) lists eight member countries (Australia, Canada, Finland, Sweden, Norway, Britain, United States and Germany) for which there are estimates of household production through satellite accounts based on time-use data.

123. As for developing countries, time-use surveys are an invaluable tool to help us to understand more about how unpaid work, and more generally household production, can contribute to poverty reduction strategies using national planning instruments as entry points. The other aim is to assess the underestimation of female participation in the labour force and to give an estimate of their contribution to the industrial sectors where they are often engaged in secondary activities, which are not recorded by regular labour force surveys (especially in the processing of agricultural and food products, and also in textiles-clothing activities).
124. While TUS will provide data for preparing *National Time Accounts (NTA)*, NTA with estimates of subsistence and household informal and commodity and service outputs would provide the main material for preparing *Satellite Accounts of Household Production (NSAHP)*. The proposed NTA are a set of estimates of total income and expenditure of time, similar to the estimates of national income and expenditure, which account for market transactions in monetary units. NTA will provide measures on continuous and up-to-date basis of how individuals and households allocate their time between paid work and, unpaid work and leisure to supplement the present regular national income accounts and thereby enable regular NSAHP to be prepared.

125. NSAHP belong to the family of satellite accounts that are described by the 1993 UN System of Accounts (SNA) as accounting statements that are separate from, but conceptually consistent, with the core national accounts.

126. Time-use studies show that people use significant amounts of time in producing goods and services in households. Estimates of the value of household work as a proportion of Gross Domestic Product (GDP) has varied between 35 and 55 per cent in developing countries (Ironmonger, 1989). However, this significant area of economic activity is not covered by official statistics. Yet, complete coverage of economic production is a vital aspect of the quality of the national accounts. And good quality of national accounts is vital for economic policy making and research. Therefore, achieving of the extent possible the exhaustiveness of GDP within this framework is the major goal of national accountants.

127. The GDP level and rate of change in GDP are often used to compare the economic performance of different countries. Thus, it is important that all countries, especially in Africa, calculate their GDP in the same way. Calculations of the value of household production have been made in several countries worldwide and recently attempts have been made in Benin, Madagascar and South Africa. However, there are still no generally accepted guidelines on how to construct National Satellite Accounts of Household Production (NSAHP) or what is the best operational method to value household production.

128. The aim of NSAHP is to provide an overall picture of the productive activities undertaken by households and to give an estimate of the value of household production. A small part of this production is covered by SNA, but most of household production is not, hence the need for this Guide.

129. A programme of action to establish continuous household surveys throughout all African countries is the essential starting point for the creation of modern, vigorous and up-to-date national statistical systems throughout Africa. It is proposed that in 2005 an initial set of six to ten countries would start a harmonised programme of continuous, six-monthly surveys of time-use and other household data. These surveys would then provide the basis in 2006 for making the first estimates of National Time Accounts, Satellite Accounts of Household Production and GHP for the year 2005 for these initial programme countries.

130. These NTA, NSAHP and GHP estimates would be on a comparable basis across countries. By mid 2006 the countries in the Continuous Household Surveys (CHS) programme would be able to prepare gender-responsive government budgets for 2007 based on the initial TUS, NSAHP and GHP data for 2005. Simultaneously in 2006, the gender-disaggregated time-use and household data from the initial CHS could form the basis for the construction of both gender-aware macroeconomic models of the total economy – both
household and market – and for gender-based micro-simulation models of household production.

131. The new household-survey-based modern statistical system should spread across Africa, as countries re-adjust budgets to provide adequate resources to their national statistical organisations. As part of this programme the African countries should produce three new statistical systems: an African System of Time Accounts (ASTA), an African System of Household Accounts (ASHA) and an African System of National Accounts (ASNA).

A Wider View of the Economy

Armed with a wider perspective of breadth of the economy, of the full dimension of work and the full dimension of Gross Economic Product, what are the urgent issues about the role of the household economy? For me, the overriding issue is to recognise the value of unpaid work and the role of the household in as many ways possible. Unless we have a commitment to this recognition, our view of how things actually work will continue to be incomplete and therefore biased. A biased, incomplete view of reality is likely to lead us astray, particularly in areas of public policy.

Statistics

We need to start with the statistics. We need to get the numbers right. At present the regular statistics give a distorted and incomplete view of the reality of the role of the household in providing care, nurture and other services of immense value.

The numbers that need correction include our statistics of hours of work, of employment, of value added, of industries and of occupations. Our official statistical bureaus are playing a major part in setting our views of the world closer to reality. They must be urged, encouraged and supported with resources to go faster and further in getting the picture right.

We need regular national time accounts to show what is happening to our household work on a continuous basis; we need regular estimates of Gross Household Product to show the value of this, at present largely invisible, output; our employment and occupational statistics record the extent of participation in household work and the management of our most important industries, the household industries which provide the basic framework of nutrition, rest, recreation, nurture and care for our population.

Setting the statistics more in tune with reality is important. Our present statistical telescopes with which we view work, employment and economic value are faulty. Their design does not allow light to be reflected off the household, where value is added without paying the labour and capital involved. This defect in our measuring instruments means that we see only the market part of the economy. In reality the economy has two parts, a market section and a household section; both are essential for the economy to function effectively.


Aims

132. Module 2 aims to understand the objectives, concepts and practices of time-use surveys, and to provide an Africa-specific guide to methodologies and approaches for collecting time-use data in independent surveys or as part of other surveys.

133. Module 3 aims to show how two interrelated methods of collecting time-use and other household data may be used to prepare gender-disaggregated data. Detailed nation-wide diary-based surveys to establish benchmark figures at five-yearly intervals can be combined with continuous sample measurements of time on a yearly, six-monthly or quarterly basis. These and other data from a Continuous Household Survey (CHS) can be used to construct annual NTA, NSAHP and GHP estimates.
134. Module 4 aims to understand what NTA and NSAHP are and how they are linked to the existing national accounts, to understand the economic and social importance of integrating household production into satellite accounts, to provide methods for valuing household production and estimating Gross Household Product (GHP) and to provide guidelines for constructing NTA and NSAHP.
Module 2

Time-use Surveys

Some Important Concepts

2.1 What are Time-use Statistics?

135. Time-use statistics are quantitative summaries of how women and men "spend" or allocate their time over a day, a week, and across seasons over a year. The basic building blocks for time-use data are: (i) activity and (ii) time. What women and men do over the course of a day can be described systematically using a classification of activities such as the UN Draft International Classification of Activities for Time-Use Statistics (ICATUS).

136. In this classification a list of 91 activities are grouped into 15 major groups. The classification is comprehensive enough to cover all human activities that could possibly occur in a 24-hour day from the time we wake up to the time we go to sleep.

137. Time-use data are usually generated from time-use surveys by recording the activities and measuring the time spent on them by individuals in representative samples of households. Time spent on an activity is measured in terms of number of minutes or hours in a specified period, ideally a 24-hour day but may also cover all seven days of the week. Time-use data give a quantitative picture in the reference population of who does what (and what else simultaneously) during the day, for how long, how often, at what time, in what order, where, with whom, and for whom.

138. Time-use statistics pertain to a reference population (for example, persons 10 years old and over; persons 15 years old to 65 years old) and are usually disaggregated by sex, age groups, rural/urban, and by other subgroups of interest to those analysing the statistics.

139. Eating, travelling (walking, driving or riding a motor vehicle and others), unpaid child care (for example, supervising, feeding), working in formal sector job (whether as employee or employer, in public or private sector), doing unpaid economic work (for example, fetching water, collecting firewood), driving a vehicle, waiting for a ride, smoking, and "doing nothing" are examples of activities on which a person may spend time during the course of a day.

Examples of Time-use Statistics

- Average number of hours in a day spent fetching water for home use.
- Total number of hours in a week spent working in paid employment.
- Total number of hours in a weekday working in unpaid domestic work.
- Average number of hours in a weekend spent watching television.
- Total number of hours in a day spent on childcare.
140. Basic statistics on time-use are in the form of estimates of time spent on activities in an “average day” or an “average week”. To arrive at that average or representative day or week, time-use data need to be comprehensive. These should cover not only the whole range of possible activities, but should also account for differences between weekends and weekdays, effects of special holidays, and variations in activities across seasons in a year and across areas or regions in a country.

Time-use Concepts

What individuals do or activities engaged in
- Single, main or primary activity over a interval of time
- Secondary or simultaneous or engaging in one or more activities
  Example: A woman preparing meals while supervising her child’s homework.

How much time is spent in an activity:
- Episode refers to the occurrence of an activity over a single continuous period
- Number of episodes or the frequency of occurrence of an activity
  Examples:
  Number of episodes of cooking during a day
  Average duration per episode of cooking
  Average number of episodes of cooking in a week per woman
- Duration refers to length of time of an episode of an activity measured in terms of minutes or hours.

Context in which the activity takes place
Contextual information typically obtained about an activity include:
- Where the activity occurred or location of an activity
- Other people present when the activity occurred (“with whom”)
- Person(s) for whom the activity was done (“for whom”)
- Any remuneration received for doing the activity, paid or unpaid
- Purpose of the activity
- Temporal location—time of day, week, month, or year an activity is undertaken
- Activity sequence or relationship of an activity to the activity that precedes and follows

Source: ESCAP (2002)

2.2 What are the Objectives of Time-use Surveys?

141. Time-use surveys are invaluable in helping us to understand more about household production. Measures of time-use are measures of “human capital” (human resources). Because “work” ideally is use of human capital to produce valuable outputs, economic studies of work should cover all market and non-market work, not just paid or market work.

142. In developed countries, time-use surveys are conducted mainly for a better knowledge of daily or weekly time-use and rhythms. The articulation or combination of paid work activities with domestic activities and the time devoted to leisure (and to television watching in particular) are also among the main objectives, as well as the interactions between professional and family time-use and between husbands and wives. The sharing of domestic activities between women and men, the extension of time devoted to leisure and the shortening of work-time are among typical concerns that time-use surveys attempts to inform.
143. However, the imperative is to interpret time-use data and derive the policy implications. TUS surveys will provide data for preparing National Time Accounts (NTA). The proposed NTA are a set of estimates of total income and expenditure of time, similar to the estimates of national income and expenditure, which account for market transactions in monetary units. NTA will provide measures on continuous and up-to-date basis of how individuals and households allocate their time between paid work and, unpaid work and leisure. The time accounts will supplement the present regular national income and expenditure accounts and thereby enable regular National Satellite Accounts of Household Production (NSAHP) to be prepared. NTA data combined with estimates of subsistence production, commodity inputs and service outputs would provide the main material for preparing the SAHP.

144. NSAHP belong to the family of satellite accounts that are described by the 1993 UN System of Accounts (SNA) as accounting statements that are separate from, but conceptually consistent, with the core national accounts. The results of time-use surveys have begun to be used by a few researchers and national accountants in a number of countries in order to build satellite accounts of household production. The main concerns have been to recognise the importance of household production as a very large and still growing part of the total economy as well as the identification of gender gaps and inequities.

145. In developing countries including Africa, a main concern in TUS is the invisibility of women’s economic activity itself. However the focus put on water or fuel wood fetching has shown that the measurement of domestic activities should also be emphasised in the context of economic development, especially so that they are intricately related to social activities and social capital as a major means by which social protection benefit individuals and households.

146. In Africa, earlier TUS focussed on the measurement of time spent in the various seasonal agricultural works, which showed the extent of women’s activity in this sector. Some of the surveys carried out at national level such as for Senegal in the 1960s were not analysed. And most of them such as for Guinea were often undertaken at local or village level and were typically research-oriented. However recently, the objectives of time-use surveys have become very practical and policy-oriented.

147. In the African context where poverty reduction strategies and regional integration are on the agenda of policy makers and international agencies, the main objectives of statistical data collection are oriented towards:

- Poverty assessments: living standards surveys, measurement of the poverty line and characterisation of poverty profiles.
- The improvement of the measurement of GDP and of its main aggregates: income and expenditures surveys, informal sector surveys.
- Time-use data would provide a moving picture of the activities of all human resources (i.e., women and men, girls and boys), which is currently almost entirely lacking or out-of-date.

148. Until recently, few economists were convinced that time-use surveys are the best and most economic way to achieve these goals. Thus, the objectives of time-use surveys need to be accurately defined. Time-use studies have been used to investigate:

- the links between work patterns and environmental degradation and change;
- the amount of leisure which individuals and societies enjoy as a measure of welfare at both micro and macro levels;
• a more accurate picture of activity in rural areas where unpaid work is prevalent;
• the extent of involvement in unpaid labour by gender and age.

149. Hirway and Ironmonger (2000) identified the following three contributions of time-use data in promoting better understanding of the economy and society:

• **Estimation of economic production and income**: Time-use data collection and analysis help improve estimation of economic production and income. Good-quality national accounts are vital for economic policy making and research. An important aspect of their quality is the extent to which they cover all measurable economic activities including household production, and hence better implementation of the national accounts. Time-use data can complement other economic and social indicators by providing a complete account of the uses of time by all sections of the community by gender and age. For example, the dimensions and social impacts of market work and non-market work and leisure are made visible through time-use data. And changes in time-use patterns, including intensity and length of work, reveal national and regional changes in the quality of life of members of the society by gender and age.

• **Recognition of household production**: Time-use data can help decision makers recognise and commit resources to the household economy. Current labour statistics do not capture all work time that is spent in the production of economic goods and services. Time-use data can provide a more complete and better measurement of all labour inputs for both the market and household economies, and thus provide a key source of statistics to improve analysis of gender issues and gender-inclusive policies. Moreover, a more comprehensive capture or understanding of the various segments and aspects of the labour market is, for the least developed countries, a first step toward a better estimate of GDP.

• **Provision of Inputs for Policy Intervention**: Time-use can help in both policy making and in monitoring the economy and society by providing insights into how social and economic systems operate. They measure and explain the impact of policies on households and people by revealing the day-to-day patterns in life of women and men, and how work is shared. For example, shifts in market employment patterns, have a significant impact on both the supply of non-market services and/or total work time spent by women (and men). Thus by helping present a bigger and more complete picture of the economy, and how households operate and are maintained, time-use data become invaluable inputs for policy, programme and service interventions for improving the situation of women, men and children.

150. Other objectives of TUS based on African experiences in TUS include the following:

• **Measurement of impacts of policies**: Gender-disaggregated data from time-use surveys can be used to monitor the time budgets of a country's citizens as well as the financial budget of the country. It will then become possible, for example, to analyse whether or not there are deficits in women's time budgets between the demands of household work and market work and the time left available for it is sustainable or if the human resources of women or girls are being depleted. Gender-aware macroeconomic modelling such as that being developed by ECA and based on the results of time-use surveys can identify the interactions between the market economy
and the non-market economy, and look at the various possible impacts of budgetary measures on the various categories of individuals and households in reference to their time use. For example, gender-aware models such as computable general equilibrium model (CGEM) can be used to evaluate impacts of policies on welfare and poverty reduction.

- **Identification of some specific categories of employment**: for instance a better account of outwork, or home-based work, undertaken as sub-contracting with large firms or middlemen is certainly an important outcome of time-use surveys (especially in emerging economies), which is shared with developed countries, even if this phenomenon is not so important in Africa. Moreover data collection on child labour is likely to be more effective through this kind of survey than in ad hoc surveys, the focus of which is very sensitive. These kinds of activities are unlikely to be well reported by the enterprises, and they are likely to be declared as self-employment by the home-based workers: information on time spent at work, the organisation of work, the mobilisation of family workers and children, the distribution of these jobs between the formal and the informal sectors, are needed to improve labour statistics, as well as national accounts.

- **Measurement of second or multiple jobs**, especially regarding wage employees. Labour force surveys fail to capture the extension of this phenomenon with a sufficient reliability, because the persons engaged in these activities are reluctant to declare them in a survey. The time diary of a TUS is likely to be able to tackle this question.

- **Social capital**: On the expenditures side, social capital has for a long time been considered as a cost - even if this cost, in non-wage economies, was recognised to play the role of social security for relatives and natives from the village or the region. However, according to various surveys in West and Central Africa, community or inter-household transfers are revealed to be a major factor of equilibrium between incomes and expenditures. It is important to crosscheck this new empirical evidence with data on time spent in socialising at individual and household levels (receiving or visiting parents, relatives, friends, villagers...) as well as at community levels (participating in ceremonies such as funerals, weddings, etc.). These are the means by which a society asserts itself, and by which networks can be mobilised for other aims. For policy makers, this changing perspective, moving from the cost side to the social and productive side, can be helpful for understanding the functioning of the private sector in developing countries. Recently research programs have been launched to understand how the informal sector and social capital have helped households to cope with the social consequences of financial and economic crises.

- **Measurement of the impact of development projects** is an important use of the results: a new well in a village, the dissemination of new sources of energy or of improved stoves can have important consequences on women’s time budgets. The time that they will save in water or wood fetching is time which the development project may be able to use for achieving specific goals such as an increase in agricultural productivity, the empowerment of women, or to improve child health. The prior knowledge of the full time budget of the villagers (according to sex, age, status, etc.) can help to anticipate the changes that are the most likely to occur in the target population. The knowledge of time budgets before and after the project is essential to
understand what has been the real impact of the project. The lessons drawn from these observations can be used for a better design of development projects before their implementation.

• **Measurement of the impact of the media** is also an interesting objective in countries where the majority of the population is illiterate. Knowledge of the time spent and the times of day people listen the radio is important for improving the impact of the messages and training designed to help populations in remote areas.

### 2.3 What are the Components of a Time-use Survey?

151. Data on time-use are collected on a national scale through a survey of a representative sample of households. Its design involves the following components:

- Type of survey instrument – how activities are to be recorded, generally using a time diary or a stylised analogue
- Mode of data collection – whether by interview, self-reporting or observation; and
- Type of household survey – whether as an independent or “stand-alone” survey or as a component or module of a multi-purpose survey.

152. Different combinations of these component options translate into a wide variety of methods. Table 2.1 summarises the approaches adopted and methodologies employed by five African and 15 other countries in collecting time-use data during 1997-2001.

153. An appropriate design for producing statistics on time-use requires a balance of objectives and resources. This task could be a complex process. Money, people and their time, and infrastructure comprise resources. In practice, most survey designs are fitted within known cost constraints, that is, the amount of money allocated for the survey is fixed and all activities related to the survey must cost less than or equal to this fixed amount. More often than not, setting the ceiling for the survey is not based on survey design options and issues. The budget is often set on other priorities, with funding and political concerns as the main considerations.

154. While some political backing has been given to time-use surveys in response to the Beijing Platform for Action, it has generally been in the form of funding for a single ad hoc survey. In some developing countries, integrating a time-use survey into the regular programme of household surveys of a country (for example, in Benin and Madagascar) is an efficient approach to develop a framework for a sound, continuing database and time series for time-use data. Since start-up costs are usually large, partly due to the need for engaging consultancy services for new types of surveys, unrelated ad hoc surveys tend to be costly. Irregular operations make it difficult to accumulate and absorb the knowledge and experience necessary to achieve efficient and reliable survey results. They also limit the opportunity to develop an adequate technical and field staff well trained in time-use methods.

**How Do We Do It?**
2.4 Methods of Data Collection

155. There are three general methods for collecting time-use data. The decision as to which method to apply usually depends on data quality concerns related to the literacy level of respondents or their willingness to spend time in providing the survey information.

- Participant observation
- Recall interview (retrospective diary)
- Self-completed diary

156. All these modules have their advantages and disadvantages relative to the reliability of data obtained, effect on response rate and cost; these need to be assessed and evaluated relative to the objectives and resources of the survey. To maximise response rates and increase reliability, they have been used in combination in a pilot survey such as in Nigeria.

2.4.1 Participant observation

157. In this method the time-use of the respondent is observed and recorded by the survey enumerator. Observation can be on a continuous basis or on a random spot basis. For continuous observation, the enumerator observes the respondent throughout the recording period; in observation on a random spot basis, the enumerator observes the respondent only at randomly chosen points in time during the recording period.

158. This method is known to provide accurate data for specific situations provided the bias introduced by the presence of an observer is smoothed out. Classical examples are where there is a limited sense of time, where activities are done simultaneously (such as child care) where it is important to know the intensity with which an activity is undertaken (as in analysis of productivity and underemployment) and where the literacy rate is low.

159. However, this method is not feasible for nationally representative samples in terms of cost, coverage of multiple persons per household, and coverage of all activities of a person.

2.4.2 Recall interview (Retrospective diary)

160. Respondents are asked to recall and record activities performed over a specified recall period – usually the previous day or over the past week; this is referred to as the “yesterday” or retrospective diary approach. In Africa face-to-face recall interviews have been used in Benin, Madagascar, Morocco, and South Africa.

161. The personal or face-to-face interview is most commonly used. The computer-aided telephone interview is an option that is increasingly being used in household surveys on a variety of topics but so far has been applied to the collection of time-use data only in Canada and the United States. The interview method may be used with both retrospective time diaries or with their stylised analogues.

162. Data are relatively cheaper to collect by these methods and can be used in surveys designed for national-level estimation. However, respondents asked to estimate time spent on a list of activities tend to over report. On the other hand, recollection of yesterday in sequence through a 24-hour diary may not assure reporting of simultaneous activities, such as supervising children, which are critical to analysis insofar as they restrict a parent’s general range of activities.
2.4.3 Self-completed diary

163. In this method, respondents record in succession all activities undertaken as they happen during the day and generally provide higher quality data. However, the method would not be applicable to most African countries where the rural population is illiterate and for cultures where time measurement may be different from that based on clocks. It has also been reported that respondent burden leads to higher rate of refusals for such diaries compared to interviews.

164. Respondents may report their own time-use by recording activities done on a time diary designed or through stylised questions included within a household survey questionnaire. One way of doing this is by asking the respondent to record the activity as or just after it occurs; this is referred to as the “tomorrow” or “current” or “left-behind” diary approach.

165. The Nigeria pilot survey was designed such that self-completed diaries were left to literate correspondents while the recall interview was utilised to complete diaries for illiterate respondents. A recall interview was resorted to when respondents failed to fill self-completed diaries due to lack of time.

166. Although not as common, another approach is the “random time sampling” (RTS), “experience sampling method” (ESM) or “beeper” survey approach. In these surveys respondents are prompted by a beeper to record specified objective information and possible subjective information as well, on what they were doing at the time the beeper sounded. Beeper signals are sent at random times during the recording period, a day or a week.

2.5 Types of Survey Instruments

167. Types of survey instruments used to obtain data on activities and their duration over a specified period of time may be classified into two general groups: 24-hour time diaries and stylised analogues of these diaries.

2.5.1 Time diary

168. The basic objective of a time diary is to enable respondents to report all activities undertaken over a prescribed period of time including the beginning and ending time for each activity, a description of the activity and the contextual information required for analysis. A diary may be a full time diary and a “light” or simplified time diary.

(i) Full time diary

- Respondents report in their own words each activity undertaken successively from the time of waking including the time the activity began and ended through the 24 hours of the day. The interval of time within which an activity is reported may be fixed; that is, the 24 hours in a day are subdivided into intervals of 10, 15, 30 or 60 minutes. Alternately the interval of time is left open and the respondent reports beginning and ending times of each activity.
- Out of 13 countries, which used full time diaries as reported in Table 2.1 only Canada, Mexico and Morocco used open time intervals.
(ii) "Light" time diary

- Respondents report the time at which each activity in an exhaustive list occurs, i.e. the 24 hours of the day is accounted for in terms of a pre-identified comprehensive list of activity categories.
- The exhaustive list of activity categories may consist of a small number of broadly described activity groups such as paid employment, education, personal needs, domestic work, maintenance and leisure.
- The exhaustive list may contain a longer list of more detailed activity tasks such as meal preparation, cooking, washing dishes; laundry, ironing, cleaning, sewing; shopping; paid work including travel.
- In the country surveys reported in Table 2.1, Benin and Madagascar used simplified time diaries. While most of these activity lists had 21-23 categories, Benin used a list of 62 activities and Madagascar 77 activities taken up in a one-page questionnaire.

In designing the time diary, decisions must be made on specific inter-related elements including:

- Whether the diary will use an open-interval or a fixed interval of time within which to report activities;
- Whether data on single or multiple activities per time interval will be collected and, if multiple whether only two columns or one column will be used and whether simultaneously-done activities will be prioritised as primary and secondary;
- Which context variables will be included in the description of the activity and how the diary format will reflect these; and,
- Mode of data collection.

The use of the simplified time diary in multi-purpose surveys decreases both respondent and enumerator burden; however, diaries in this format include a pre-specified list of activities and this results in a classification of activities based on the respondent's subjective perceptions or interpretations rather than by an objective criteria unless the pre-list is long enough.

Time-use diaries have been found difficult to implement when there is a low rate of literacy and lack of access to watches or clocks. However, small-scale experiments on pre-coded activity matrix-type diaries with the use of pictorial and symbolic devices representing activities and the use of digital watches to measure time show promising result. On the other hand, a similar study involving a diary design using a combination of pictograms and interviews developed by Statistics Norway, which was implemented as part of pilot activities of the 1999 Palestine Time-Use Survey, was not adopted in the full survey.

Where the diary is completed by the interviewers for illiterate respondents a crucial question arises: is it realistic that, among illiterate populations, a time slot of 15 minutes (or even 30 minutes) can be correctly reminded or even measured? The issue is the same as for other measurement units (areas, weights, etc.): in the methodology of the survey, interviewers must be sensitised with the ways of understanding and capturing the rhythms of rural and village life. From sunrise to sunset, the daily repetition of activities leaves little room to important variations from household to household. The test of the questionnaire is a good opportunity for observation and identification of measurement units in various contexts: the bell of the church or the muezzin of the mosque, time to go to school or to return from school, position of the sun at midday are landmarks among others.
173. Examples of time diaries are shown in the Annex. The diaries used in India and South Africa are full time diaries while the Oman and Benin diaries are light time diaries.

2.5.2 Stylised analogues of time diaries

174. In the stylised version of diaries, respondents are asked to recall the amount of time they allocate, or have allocated, to specified activities over a specified period such as a day, week or year. It is different from a diary because the respondent does not report the specific time of the day the activity is performed rather, the respondent reports the total time spent on the activity during a given period.

175. Stylised questions are typically of the form:

"Yesterday (or last week), how much time did you spend on activity X?" or
"How many hours per day (or per week) do you spend usually on activity X?"

176. In using questions such as these, the stylised analogue of a diary:

- Collects information on the frequency and duration of time spent on a pre-specified set of activities;
- Asks respondents whether or not they participated in each activity in the previous day or on the day before that or the past week;
- Follows up respondents who said “yes” to above query on how many hours they have spent on that activity during that day or the past week; and
- Activities listed may be exhaustive or selective.

177. An example of a stylised analogue is the Living Standard Measurement Study (LSMS) questionnaire. In this rather lengthy and overloaded questionnaire, a section on time-use collects information on the number of hours (during the past week) allocated to water fetching, firewood fetching and other housekeeping activities. For instance, in the last round (4th) of the Ghana Living Standard Survey (GSS, 2000), part J of section 4 on employment and time-use, entitled 'housekeeping', is comprised of 24 questions. The questions are labelled as follows: have you, during the past seven days, spent some time doing ...... for the household? If yes, how many hours did you spend doing this activity (including travel time) during the past seven days?

- water fetching,
- wood fetching,
- ironing clothes,
- taking care of children,
- washing motor vehicles,
- sweeping,
- disposing of garbage,
- cooking,
- marketing or shopping,
- running errands,
- washing dishes,
- other housekeeping activities.

178. In the previous rounds of GLSS as well as in the standard LSMS as it is presented in Ainsworth and Van der Gaag (1987), Delaine and al. (1992), and Grosh and Glewwe eds, (2000), the set of questions is limited to three: wood, water and other housekeeping. Progressively, this type of questionnaire is evolving towards a pre-edited list of activities, which can be long enough: but as soon as the list extends, the reference period shortens from the week to the day. For instance a 24-hour diary with a list of 23 activities was included in the income-expenditures household survey of Oman in 1998.
2.6 Types of Survey

179. Most of the household surveys designed to collect data on time-use may be classified into two basic types. Independent or “stand-alone” time-use surveys and multi-purpose or multi-subject household surveys with a time-use component or module.

2.6.1 Independent time-use surveys

180. This is a household survey concerned with the single subject of time-use. In this type, the survey scope and coverage, questionnaires, sample design and selection, training plans, field operational procedures, and data processing systems are configured for this one purpose. Being able to plan for, design and implement a single subject survey is important for a subject as complex as time use. Thus, countries conducting a time-use survey for the first time have usually opted for an independent survey. Of the African countries listed in Table 2.1, only South Africa implemented an independent survey.

2.6.2 Multi purpose surveys

181. Two approaches to collect data on time-use through a component in a multi-purpose household survey are a modular approach where the time-use component is a separate module and an integrated approach where the time-use component is included along with all other components in a single module. The common form of the modular approach involving a time-use component is one where:

- There is a core module such as a labour force survey or an income and expenditure survey and two or more additional or “rider” modules; a time-use module is included as a rider module.
- The core module primarily guides the requirements including population coverage, sample design and selection of households and major aspects of survey operations such as operational schedules, listing procedures, and enumerator workload.
- Usually, the enumerator first completes the data collection on the core topic before introducing the time-use or other modules.
- The time-use module would utilise a separate set of survey instruments, in the form of a time diary or a stylised analogue plus a background questionnaire.
- The time-use component is fielded at the same time as the core survey and employs the same set of interviewers.

182. Some degree of flexibility in terms of selection of respondents for the time-use module and scheduling of call backs is possible and to the extent that it does, the modular approach can almost be considered an independent survey. The TUS of Benin, Madagascar and Guatemala, used the modular approach.

183. In the integrated approach a single questionnaire is used to cover all topics and specific items on time-use are incorporated in the questionnaire. Typically, the questions are in the form of stylised questions on time use.
2.7 Classification of Activities for Time-use Statistics

184. Classification systems attempt to reflect meaningful distinctions between specific activities for the purpose of tabulation and also try to prioritise these distinctions to provide a conceptual basis for the analytical framework (Horrigan, 1999).

185. In a TUS, the activity is a basic unit of analysis. Thus, the nomenclature and classification of activities form an important part of the planning, collection and analysis of time-use data. A statistical classification provides “a set of discrete values which can be assigned to specific variables which are to be measured in a statistical survey; which will be used as basis for the production of statistics”.

186. The UN International Classification of Activities for Time-use Statistics (ICATUS) developed by the United Nations is different from others in that it emphasises productive activities, not only those in the formal economy but also those that occur in the household and the informal economies. These distinctions are essential in understanding and recording the full range of work in developing countries and are specifically useful in defining “unpaid work” for survey measurement purposes.

187. Specifically, the ICATUS differentiates activities on the basis of whether an activity is within the SNA production boundary, within the general production boundary but outside the SNA boundary, or non productive. The first five of the fifteen major groups in the classification are assigned to SNA economic activities – employment for establishments, primary production activities not for establishments, and services for income and other production of goods not for establishments. Activities, which fall predominantly within the general production boundary but outside the SNA boundary, using the third person criterion, are classified in groups 6 to 9; and major groups 9 to 15 cover non-production activities.

188. The recent survey in Nigeria implemented the ICATUS in its current form. South Africa is adapting the ICATUS with little difficulty for the non-SNA productive and non-productive activities. For the SNA economic activities, South Africa expanded the classification to 3-digit level to take care of country specific activities. This process pointed to the need for a clear definition of “establishments” as well as definitions of the first five major groups. In addition, because the survey objective requires the analysis of work-related activities by status in employment the ICATUS approach, which does not consider status in employment, became a limitation. This limitation as well as the need to incorporate industry and occupation characteristics in describing production activities led India to construct their own activity classification.

189. Time-use data are about people’s activities. A detailed, comprehensive and systematic listing of activities needs to be available as a basis for assessing completeness of coverage of activities. This listing is used as a guide in the design of survey instruments and selection of methods. It is also the interviewer’s guide for eliciting from the respondent the level of detail required by the survey objectives. It serves as the basis for developing coding rules and indexes.

190. Existing activity classifications are hierarchical in nature. Their structures are determined by the number of detailed description of activities and the number of broad groups and subgroups into which activities are categorised and the bases for categorising these activities. Codes usually numerical are assigned at a one-digit level to major groups, two-digit level to
the first level of subgroups within a major group. The most detailed description of activities has the highest-digit level codes. The one or two digit levels are typically used as analytical and tabulation categories in surveys that use the full time diary.

191. The following list of daily activities has been used in Benin and was extended to 77 activities and adapted to Madagascar by adding some traditional common activities:

1. Sleeping
2. Resting, doing nothing
3. Toilet, dressing
4. Having meal (breakfast, lunch, dinner)
5. Having meal outside home
6. Washing up
7. Cleaning the house
8. Ironing
9. Washing clothes
10. Other up keeping
11. House or utensils repairing
12. Drying subsistence products
13. Fetching water
14. Preparing meals for the household
15. Collecting firewood
16. Running errands at the market
17. Commuting
18. Undertaking administrative procedures
19. Taking care of children
20. Taking care of adults, invalids, elderly
21. Main economic activity (specify ...)
22. Secondary economic activity (specify ...)
23. Tertiary economic activity (specify ...)
24. Seeking work
25. Agriculture
26. Breeding cattle
27. Breeding chicken
28. Vegetable gardening
29. Forestry
30. Hunting
31. Fishing
32. Gathering
33. Spinning
34. Weaving
35. Matting
36. Basket-making
37. Crushing
38. Going to mill
39. Processing food agricultural products
40. Other processing for self-consumption (specify ...)
41. Studying at school
42. Studying at home
43. Reading, writing at home
44. Treating illness
45. Receiving parents, friends, neighbours
46. Other errands or shopping
47. Talking, chartering
48. Paying visit to parents, friends, neighbours
49. Celebrating (specify ...)
50. Participating in ceremonies: weddings, funerals, Baptism, etc. (specify ...)
51. Preparing food for ceremonies
52. Other processing activities for ceremonies
53. Attending meetings with various associations (political parties, unions, NGO, local associations) (specify ...)
54. Going to church, mosque, vodun
55. Alphabetisation
56. Watching TV
57. Watching movie
58. Playing
59. Dancing
60. Having a drink
61. Playing sport
62. Other (specify ...)

192. Each of these 62 activities is pre-coded in a classification of nine categories:

**Economic activities:**

1. market activity (SNA production),
2. non-market activity (SNA production),
3. domestic activities, care work (non-SNA production),
4. socialising through associations (volunteer work) (non-SNA production),

**Non-economic activities:**

5. socialising with family and relatives (visits, ceremonies),
6. commuting,
7. leisure,
8. studying at school or at home,
9. personal care (sleeping, resting, eating).

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*Category 8 (studying) is recommended by INSTRAW to be included as a productive economic activity.*
193. In simplified time diaries the pre-listed activities comprise the activity classification for the survey. The pre-listed activities are typically also the analytical and tabulation categories although a smaller set of broader groups of activities can be used for the purpose of tabulation and analysis. Consistent with the prevailing analytical themes of time-use studies at the time these were constructed (for example, leisure, domestic work), the activity classifications focused on detailed lists of unpaid work and leisure activities – housework, care-giving, socialisation, recreation, learning, mass media. The activity classification developed in 1965 by the Multinational Comparative Time-Budget Research Project with its full 99-activity code or summary 37-activity code set the initial standard for most of the national classifications of developed countries.

194. In recent years, new activity classifications in both developed and developing countries have addressed the expanded use of time-use data to assess national labour inputs into production of all goods and all types of services, and in the compilation of household satellite accounts consistent with the system of national accounts. Listings of activities have included greater detail for SNA economic activities. These have also considered means for differentiating activities relative to the production boundary of the SNA such as non-market work from other non-market activities, providing care for others and self-care, and intra-household transfers from inter-household transfers.

195. In addition, analyses that measure changes in time-use and provide cross-national comparisons require an activity classification that is closely linked with the activity classifications used in the TUS within a country; among similar groups of countries and globally. The Eurostat harmonised time-use project developed a time-use classification that is intended to serve as a standard for Europe. The United Nations International Classification of Activities for Time-Use Statistics is being developed as a standard classification at the global level. A unique component of this classification detailed in the Annex, is a comprehensive categorisation of activities associated with household production of goods for own final use and informal sector activities. As such, the classification provides analysis with a means that is classifying activities into productive and non-productive and within productive activities classifying activities as paid or unpaid.

196. The various types of classifications have provided interesting and consistent results: the short pre-listed classification is probably not detailed enough for the purpose of building a satellite account, but as shown in the Ghanaian experience, it has had a tendency to expand the list of activities. The longer pre-listed classification and the international classification have their own advantages: the first is easier to handle and the second is more precise and detailed. However in many African countries' statistical offices, one must not underestimate the difficulties and the risks lying in the use of a classification, which is new and unusual in the current practice of the staff.
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2.8 The Basics for Measuring Time Spent on Household Production

2.8.1 Reference population

197. Given the objective of improving measurement of paid and unpaid work, what population should the survey study and how are respondents to be selected? Some countries considered urban/rural representation important: India and South Africa further defined area strata that would account for work pattern differences such as in tribal areas. In terms of minimum age cut-offs, other country surveys used 6 years old, four used 10 years old and two used 15 years old. Five of the surveys selected all eligible members of the sample households. Of the surveys that sampled from eligible household members, two selected two male and two female at random while the other did not use sex as a basis for sampling.

198. One can argue that data should be collected on all household members so that analysis of both individual and intra-household aspects of time-use is possible. Also, for analysis of women's economic activities, children in particular cannot be overlooked since much household production is shared between women and children. This approach is also cost efficient in enabling more data to be collected and provides a mechanism for a quality control check on reporting.

199. However, accurate reporting on time-use requires a knowledgeable respondent and it would be best for each individual to report on his or her own time use. These may present difficulties where younger children are involved as illustrated in the Nigeria pilot where adult members of the household had to provide assistance to complete the child time diaries. Benin and Madagascar had a maximum age cut-off at 65, corresponding to labour force and income data requirements. A limitation that arises is that the productive activities of older persons will be excluded from these data.

2.8.2 Measurement of Time

200. The measurement of time needs to consider:

- Reference periods and sampling issues, and
- Time intervals (open, fixed interval, interval length).

201. As in labour force and income and expenditure surveys, a TUS needs to account for seasonal factors. In addition, a time-use survey needs to produce data on use of time during a day and on different days of a week. How to deal with ceremonial cycles or holiday effects may also be an issue. Accounting for temporal variation is particularly important where work hours are irregular even within a week or month, which is often the case with women’s economic activity. Seasonal changes in work occur in agricultural and rural households and in the urban informal sector in African countries.

202. For sampling days of the week most of the survey designs assigned a single designated day per respondent but distributed designated days across respondents so that all days of the week are equally covered. South Africa and Nigeria pilots sampled more than one day (all seven days for Nigeria, two randomly selected days for South Africa) but it was concluded that this led to non-completion of diaries due to respondent burden.

203. In general, decisions on whether days of the week are to be uniformly represented vary. South Africa places more weight on weekdays because of the focus on market production activities; weekends are associated more with leisure. The design of the India TUS called for
first classifying days in the household as a typical normal day, a weekly variant day or an abnormal day. Recording of activities was targeted for a typical or weekly variant day. Abnormal days associated with deaths, weddings and other ceremonies, were excluded in the time sample.

204. However, these issues are highly debatable: a major outcome of a TUS is clearly to provide representative and reliable NTA estimates of total work (SNA and non SNA), which are not adequately measured by usual labour force surveys. Consequently it is necessary to record the total number of hours worked by all categories of the population during ordinary working days of the week and during the week ends. For the same reasons, abnormal days must be taken into account, especially in countries and contexts where they may be not negligible. In Benin and Madagascar the interviewers were specially instructed for such cases: if the day of interview was an ‘abnormal’ day with special social event or ceremony, the interviewer had to fix another appointment in order not to disturb the household, but when he comes back, he had to fill the diary for the specific day of his first appointment.

205. Nigeria used an open interval diary with beginning and ending times; the enumerator recorded beginning and ending times and total time spent on an activity. Time intervals for the fixed-interval diaries ranged from 15 minutes to one hour. The survey, which utilised simplified time diaries, used 15 minutes intervals.

206. The TUS for South Africa account for seasonal variations by distributing reporting dates on a periodic basis (monthly, quarterly and half-yearly). However, the technique of a rotating sample is the best for this aim; that is, a national representative sample distributed on each month of the year (a method often used for income-expenditure surveys). In this case, the seasonal variations are automatically captured. Another method is to repeat the survey twice, three or four times a year (with the difficulty of retrieving the same households for the second, third and fourth interviews).

2.8.3 Simultaneous activities

207. A person may be engaged in two or more activities simultaneously two of which are usually work-related activities. Housework and child-care, child-care and home-based contractual work and housework and socialisation are instances of such simultaneous activities. The design of a TUS with the objective of improving measurement of paid and unpaid work and capturing gender differences would need to be able to distinguish among these activities. Recording of simultaneous activities requires decisions that include:

- what questions in the survey instruments or context variables, would best capture them,
- how many activities done together are to be recorded, and
- whether to prioritise or rank activities as primary, secondary, etc.

208. It may be difficult to record simultaneous activities in a simplified time-use diary. Benin devised a procedure for doing so but survey results indicate that parallel activities were underreported. Some surveys that capture simultaneous activities do not prioritise the activities into primary, secondary, etc. These have implications in the processing and tabulation of the diary data.

209. Recording and analysis of simultaneous activities is currently a major area of development and discussion in the time-use field.
2.9 How to Summarise Data from Individual Diaries in Statistical Tables

210. Time-use data are unusually unwieldy to analyse. They include in addition to all the conventional household characteristics, time data for individuals and households which can be addressed in terms of type of activities, frequency, duration, complementariness with other activities, sharing with other persons, location, intensity, sequence, etc., and which can be aggregated by activity, households, individuals by sex or age, etc. Perhaps because of this complexity, although data collection is usually completed within the time schedule of a survey operation, data analysis becomes a bottleneck in generating survey results. The path from thousands of individual diaries to useful summaries and statistical tables needs to be carefully mapped out. Major aspects that need to be considered are described below.

2.9.1 Basic edits

211. There is a consensus among time-use experts that primary activities must add up to 1,440 minutes per day (and the consistent arithmetic for week and year should follow). This increases the accuracy and completeness of reporting very significantly, because it provides a check as to whether the estimates of the duration of each activity were accurate or whether some activities were omitted.

2.9.2 Coding activities

212. Coding rules are especially needed when processing the information on time-use activities in diaries to deal with:

- Over-riding activities: Descriptions of activities by respondents may actually be several activities at once. Some surveys have defined certain activities as over-riding or natural main activities because they create the environment in which other things happen. Examples of such activities are travelling, socialising or entertainment that involve going to a venue, visiting or receiving visitors for more than a few hours.

- Pervasive activities: Certain activities, particularly passive care of children or adults requiring monitoring may not be consistently reported.

- Omitted activities: Examples of such activities are constant background activities such as passive childcare, travel, eating, sleeping. Sometimes no activity appears for intervals of time.

- Simultaneous activities: When simultaneous activities are recorded it may be necessary to prioritise these as main, secondary, etc.


2.9.3 Basic Tabulations

214. The basic tables are presented according to the classification of activities with sub-totals for (1) SNA economic activities, (2) non-SNA economic activities and (3) non-economic activities and by sex. Useful complementary similar tabulations can be prepared by age
groups (school age, working age, old age), activity status (attending school/not attending; in paid work/not in paid work), employment status (employees/self-employed), industrial sector (agriculture/non agriculture), place of living (rural/urban), marital status (married/not married/etc.), status in the household (head/spouse/son/etc.).

215. Results (in terms of time spent in performing specific activities) can be presented as averages for just those individuals having performed this activity, or as an average for all individuals in the sample whether they performed the activity in the sample period or not. When multiplied by the population these full sample averages give macro estimates for the whole country. For example the average time spent in fetching water in Ghana in 1992 is 55 minutes per person per day (mpd) and is 31 mpd for all those aged seven or more. This amounts to 42 million hours per week (Mhw) in the national economy of Ghana.

216. Besides analyses at macro-level, the analyses of the survey results must be made according to various population sub-groups. Variations in time-use according to population sub-groups are generally the most enlightening. For example, these data help to identify those categories of the population that contribute more to non-SNA production although less to SNA production.

2.9.4 Estimation procedures

217. How can data from time-use diaries of only a sample of days from only a sample of the reference population be made to represent the whole population? If the sample of households and individuals and diary days are statistically (scientifically) selected, this can be done by multiplying each piece of data in a diary by an appropriate numerical “weight”. Each weight (w) is derived from the probabilities of selection defined in the sample design. The idea is that when a diary day or an individual or a household is selected it represents w other days, individuals or households similar to it but who are not in the sample. For example, in a simple random sample of two percent of a population, each person in the sample represents 50 persons in the population. The resulting weighted, “blown-up” or extrapolated data thus represent the responses of these other days, individuals or households that then accounts for the entire population.

218. An estimation procedure defines how this weighting is to be done and how the statistics (totals, means or proportions) are to be generated from the weighted data. In addition, the procedure would also further adjust the data by applying weights in order to make population estimates consistent with estimated population counts and weights to account for cases of non-response. For diary data, different sets of weights are applied for diaries, persons and households.

2.9.5 Data Compilation and Analysis

219. The compilation of the collected data is not difficult: time slots are added up in the diary so that time spent by the person in a given activity is known for the day of the survey. These data form the basis of the calculation of weighted population averages and macro estimates for the whole population for the period covered by the survey, a month, quarter or year.

2.9.6 Macro-compilation and Extrapolation
220. For the purpose of building a satellite account of household production during a year the main objective of the time-use survey is to estimate the total time spent in each household production activity in the year.

221. When data collection has been made both for working days and non-working days, tables should be split into these two categories. Then for each category of persons (for instance female employees in urban areas, or rural boys attending school) estimates are made of the average per person time-use for a working day and for a non-working day. Thus by imputing time-use of a working day to those members of a given category who have been surveyed on a non-working day (and reciprocally) it is then possible to estimate the time spent in a given activity for the whole week and for the whole sample of individuals.

222. The estimation for the whole year is automatic in the case of a rotating sample or in the case of a repeated survey: the results of each round are simply added up. It is preferable that this be done before macro-compilation, so that the average working day (and the average non-working day) is calculated on a year basis.

223. Total time-use estimates should be based on population estimates for the various groups of individuals defined by their sex, age and location.

2.10 Case studies of Time-use Surveys

224. Tables 2.2 and 2.3 hereafter present comparative results of time-use surveys in five countries: Benin, Madagascar and Morocco, South Africa and France. Morocco provides only a limited comparison because time-use was collected only for women, not for men.

225. Data are not fully comparable: Benin and Madagascar have published separate results for urban and rural areas (however, it would be possible to calculate national figures by weighting rural and urban populations); moreover the population aged six to 15 is included for those two countries. Morocco did not collect data for men. Time budgets are calculated for the whole population surveyed, including those not engaged in market work. Table 2.3 synthesises the results and presents the ratios of women’s time to men’s time.

226. Results show that in urban areas, market (SNA) production uses only 16 to 55 percent of the time devoted to work by women, and from 80 to 84 percent of men’s time at work. Except in Benin (where the hours are almost equal), women’s involvement into SNA production activities is around 60 percent of men’s. But women work from 2 to 5 times more than men in domestic activities. And when looking at work as a whole (total economic production), women work more than men in all areas compared: from 11 per cent more in France to 46 percent more in Urban Benin.

227. Such results have led to revisions in the participation rates of women and their share in the labour market: in Benin, the share of women in the total labour market is increased from 42.6 percent in the 1992 population census up to 53.3 percent, a share similar to their share in total population; women’s participation rates also become similar to men’s in urban areas. In Morocco, it is for rural areas that women’s labour market participation rates become similar to men’s, while they are largely increased in urban areas.

5 It would also be possible to obtain separate urban and rural estimates for South Africa and France.
228. Fetching water takes 1 hour in the 24-hour day of rural women in Benin and 30 minutes in Madagascar (against respectively 15 and 10 minutes for men) and fetching firewood takes 25 minutes of men’s day in Madagascar, and of women’s day in Benin. This is of course far from being negligible at a year scale: it is equivalent to 9 full days of work for each rural woman aged 6 years or more.

229. Tables 2.4 and 2.5 present the results of the Ghana Living Standards Survey (GLSS 3 and 4). Among the striking results, the relative comparability of time-uses obtained by this method and by the method of the detailed diary can be noted. In average, Ghanaian women spend 3 hours and 5 minutes per day in housekeeping activities, compared with 3 hours and 15 minutes in Benin and 3 hours and 30-45 minutes in Madagascar.

230. In 1998 when the list of activities was increased, the total number of hours spent in housekeeping activities was not calculated. But if we assume that the two rounds of the survey are comparable, it is clear that the most time-consuming housekeeping activity is the care of children. However, in 1998 Ghanaian women devoted as much time to this activity as to total housekeeping activities in 1991-1992. This point raises an important issue to be dealt with in time-use surveys: simultaneous activities. [Note: Ghana figures include fetching wood and water in the 3 hours and 5 minutes of “all housekeeping” non-SNA production whereas Benin and Madagascar include them in the SNA production activities.]

231. As mentioned earlier, simultaneous activities were recorded in the time-use surveys in Benin, South Africa and Madagascar. Care of children is the most important simultaneous economic activity: mothers can declare that they care for their children while cooking or while receiving neighbours, etc. This is why one can conclude that care of children was not recorded in the 1991-92 round of the GLSS and that other housekeeping activities are partly hidden behind or merged into child care in 1998. This problem must be kept in mind when the issue of valuation is discussed.

232. These various examples of the type of data currently available provide useful information for further steps towards the elaboration of a satellite account of household production.
Table 2.2: Comparisons of time budgets in four African countries and in France. (Average hours per person per week)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Benin 1998</th>
<th>Madagascar 2001</th>
<th>Morocco</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>URBAN</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of which non market:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- water fetching</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>- wood fetching</td>
<td>0.6</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Household Production</td>
<td>22.8</td>
<td>7.0</td>
<td>15.2</td>
</tr>
<tr>
<td>Total Work</td>
<td>50.2</td>
<td>34.4</td>
<td>42.6</td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td>7.6</td>
<td>12.8</td>
<td>10.5</td>
</tr>
<tr>
<td><strong>Social Activities</strong></td>
<td>9.9</td>
<td>13.4</td>
<td>12.3</td>
</tr>
<tr>
<td><strong>Leisure</strong></td>
<td>6.4</td>
<td>11.7</td>
<td>8.8</td>
</tr>
<tr>
<td><strong>Commuting</strong></td>
<td>3.5</td>
<td>5.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Sleeping, eating, resting</td>
<td>89.8</td>
<td>89.8</td>
<td>89.8</td>
</tr>
<tr>
<td><strong>TOTAL TIME</strong></td>
<td>167.4</td>
<td>168.0</td>
<td>169.2</td>
</tr>
</tbody>
</table>

| RURAL                   |            |                 |         |
| Market Production       |            |                 |         |
| Of which non market:    |            |                 |         |
| - water fetching        | 7.0        | 1.8             | 5.3     |
| - wood fetching         | 2.9        | 0.6             | 1.8     |
| Household Production    | 22.8       | 7.6             | 15.2    |
| Total Work              | 58.3       | 40.8            | 49.6    |
| **Learning**            | 3.5        | 8.2             | 5.8     |
| **Social Activities**   | 10.5       | 15.2            | 12.8    |
| **Leisure**             | 4.1        | 8.8             | 6.4     |
| **Commuting**           | 5.3        | 7.0             | 5.8     |
| Sleeping, eating, resting | 86.9     | 89.3            | 87.5    |
| **TOTAL TIME**          | 168.6      | 169.2           | 168.0   |

<table>
<thead>
<tr>
<th>NATIONAL</th>
<th>South Africa 2000</th>
<th>France 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Production</td>
<td>13.4</td>
<td>22.2</td>
</tr>
<tr>
<td>Of which non market:</td>
<td>1.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Household Production</td>
<td>25.1</td>
<td>9.9</td>
</tr>
<tr>
<td>Total Work</td>
<td>38.5</td>
<td>32.1</td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td>11.1</td>
<td>12.8</td>
</tr>
<tr>
<td><strong>Social Activities</strong></td>
<td>15.2</td>
<td>16.3</td>
</tr>
<tr>
<td><strong>Leisure</strong></td>
<td>14.6</td>
<td>18.1</td>
</tr>
<tr>
<td><strong>Commuting</strong></td>
<td>7.0</td>
<td>9.9</td>
</tr>
<tr>
<td>Sleeping, eating, resting</td>
<td>85.8</td>
<td>84.6</td>
</tr>
<tr>
<td><strong>TOTAL TIME</strong></td>
<td>172.1</td>
<td>173.8</td>
</tr>
</tbody>
</table>

**Sources:**

83 The ECA Guidebook on Household Production
Table 2.3: Time devoted to household production, market production and total work by gender in various countries.

<table>
<thead>
<tr>
<th>Country and Year</th>
<th>Household Production</th>
<th>Market Production</th>
<th>Total Economic Production</th>
<th>Market per cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(non-SNA)</td>
<td>(SNA)</td>
<td>(non SNA+SNA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Women - Hours per week</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Benin 1998</td>
<td>22.7</td>
<td>35.6</td>
<td>58.3</td>
<td>61.0</td>
</tr>
<tr>
<td>Rural Madagascar 2001</td>
<td>24.5</td>
<td>28.0</td>
<td>52.5</td>
<td>53.3</td>
</tr>
<tr>
<td>Rural Morocco 1998</td>
<td>36.7</td>
<td>20.4</td>
<td>57.2</td>
<td>55.7</td>
</tr>
<tr>
<td>Urban Benin 1998</td>
<td>22.7</td>
<td>27.4</td>
<td>50.2</td>
<td>54.7</td>
</tr>
<tr>
<td>Urban Madagascar 2001</td>
<td>26.2</td>
<td>20.4</td>
<td>46.7</td>
<td>43.8</td>
</tr>
<tr>
<td>Urban Morocco 1998</td>
<td>33.8</td>
<td>6.4</td>
<td>40.3</td>
<td>15.9</td>
</tr>
<tr>
<td>National South Africa 2000</td>
<td>25.1</td>
<td>13.4</td>
<td>38.5</td>
<td>34.8</td>
</tr>
<tr>
<td>National France 1999</td>
<td>30.7</td>
<td>13.2</td>
<td>43.9</td>
<td>30.1</td>
</tr>
<tr>
<td><strong>Men - Hours per week</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Benin 1998</td>
<td>7.6</td>
<td>33.3</td>
<td>40.8</td>
<td>81.4</td>
</tr>
<tr>
<td>Rural Madagascar 2001</td>
<td>4.7</td>
<td>42.0</td>
<td>46.7</td>
<td>90.0</td>
</tr>
<tr>
<td>Urban Benin 1998</td>
<td>7.0</td>
<td>27.4</td>
<td>34.4</td>
<td>79.7</td>
</tr>
<tr>
<td>Urban Madagascar 2001</td>
<td>6.4</td>
<td>33.8</td>
<td>40.3</td>
<td>84.1</td>
</tr>
<tr>
<td>National South Africa 2000</td>
<td>9.9</td>
<td>22.2</td>
<td>32.1</td>
<td>69.1</td>
</tr>
<tr>
<td>National France 1999</td>
<td>16.8</td>
<td>22.6</td>
<td>39.4</td>
<td>57.4</td>
</tr>
<tr>
<td><strong>Ratio of women's to men's time (per cent)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Benin 1998</td>
<td>300.0</td>
<td>107.0</td>
<td>142.9</td>
<td></td>
</tr>
<tr>
<td>Rural Madagascar 2001</td>
<td>525.0</td>
<td>66.7</td>
<td>112.5</td>
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<tr>
<td>Urban Benin 1998</td>
<td>325.0</td>
<td>100.0</td>
<td>145.8</td>
<td></td>
</tr>
<tr>
<td>Urban Madagascar 2001</td>
<td>409.1</td>
<td>60.3</td>
<td>115.9</td>
<td></td>
</tr>
<tr>
<td>National South Africa 2000</td>
<td>252.9</td>
<td>60.5</td>
<td>120.0</td>
<td></td>
</tr>
<tr>
<td>National France 1999</td>
<td>182.6</td>
<td>58.2</td>
<td>111.2</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** As for table 2.2.
Table 2.4: Average and estimated total time spent on various housekeeping activities, by sex (population aged 7 and more). Ghana 1991-1992.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Sex</th>
<th>Proportion doing this activity</th>
<th>Average time spent (hours and minutes per day)</th>
<th>Estimated total time spent per day by all aged 7+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>By those doing this activity</td>
<td>By all those aged 7+</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hours and minutes per day</td>
<td>Million hours per day</td>
</tr>
<tr>
<td>Fetching wood</td>
<td>Males</td>
<td>24</td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>43</td>
<td>52</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Both sexes</td>
<td>34</td>
<td>47</td>
<td>16</td>
</tr>
<tr>
<td>Fetching water</td>
<td>Males</td>
<td>45</td>
<td>48</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>68</td>
<td>1h</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Both sexes</td>
<td>57</td>
<td>55</td>
<td>31</td>
</tr>
<tr>
<td>Other housekeeping</td>
<td>Males</td>
<td>61</td>
<td>1h15</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>90</td>
<td>2h15</td>
<td>2h02</td>
</tr>
<tr>
<td></td>
<td>Both sexes</td>
<td>76</td>
<td>1h52</td>
<td>1h25</td>
</tr>
<tr>
<td>All housekeeping</td>
<td>Males</td>
<td>70</td>
<td>1h48</td>
<td>1h16</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>93</td>
<td>3h11</td>
<td>3h05</td>
</tr>
<tr>
<td></td>
<td>Both sexes</td>
<td>82</td>
<td>2h42</td>
<td>2h13</td>
</tr>
</tbody>
</table>


Table 2.5: Average time spent on various housekeeping activities, by sex and locality (population aged 7 and more). Ghana 1998.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Sex</th>
<th>Proportion doing this activity</th>
<th>Average time spent (hours and minutes per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td>51 28 30</td>
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<td></td>
<td>Females</td>
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<td>44 37 37</td>
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<td>47 34 35</td>
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<tr>
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<td>Males</td>
<td>37.7</td>
<td>31 34 33</td>
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<tr>
<td></td>
<td>All</td>
<td>39.7</td>
<td>1h21 1h49 1h39</td>
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2.11 A Guide to Designing and Implementing a Time-use Survey

1. Identify the on-going or planned household sample surveys that could validly include a diary, preferably a labour force survey, an income-expenditures survey or a living standards household survey.

2. If the time-use survey is an independent survey, it is important to design preliminary sections on demographic and household characteristics, on labour market participation and on income-wages.

3. Design the diary by
   • determining the time slots (intervals).
   • listing the activities if it is decided to use prelisted activities (adapt the list to country specifics).
   • if the list of activities is left open, identify and adapt the international classification to be used for data entry.

4. Draw a representative sample of households:
   • design a rotating sample over the year
   • or design a repeated survey with the same selected households

5. Decide of the cut-off minimum age for members of the households to be interviewed with the diary (preferably 6 or 7 years old, in order to capture child work).

6. Prepare a tabulation program with basic tables that cross classify detailed and aggregated economic activities (SNA market production, SNA non-market production and non-SNA production) and non-economic activities by sex, age, location and other characteristics of households and people. The basic variables to be included in the tables are: number of persons concerned by the activity, time per day per concerned persons, time per day per individuals in the sample (or sub-sample depending on group).

7. Compute the total number of hours worked in the various detailed and aggregated activities.
Module 3
Continuous Household Surveys in Africa

Some Important Concepts

3.1 What are Continuous Household Surveys?

233. Gender-disaggregated data can also be obtained through sample surveys of households in every African country. Continuous national surveys of a representative sample of a few thousand households are only a fraction of the cost of a national census but are sufficiently accurate, often more accurate, than other survey forms covering millions of households. These could be conducted every six months, rather than every month as they are in most developed countries, and the sample size need not be more than 5,000 households per country. The data could be used to update the estimates of the nation-wide surveys to understand the short-term dynamics between the household economy and the market economy over the fluctuations of the business cycle. Thus, the data could be available within three months (that is, June statistics available by the end of September and December statistics by the end of March, etc.).

234. A programme of action to establish continuous household surveys throughout all African countries is the essential starting point for the creation of modern, vigorous and up-to-date national statistical systems throughout Africa. It is proposed that in 2005 an initial set of six to ten countries would start a harmonised programme of continuous, six-monthly surveys of time-use and other household data. These surveys would then provide the basis in 2006 for making the first estimates in of National Time Accounts, Satellite Accounts of Household Production and GHP for the year 2005 for these initial programme countries.

235. These NTA, NSAHP and GHP estimates would be on a comparable basis across countries. By mid 2006 the countries in the Continuous Household Surveys (CHS) programme would be able to prepare gender-responsive government budgets for 2007 based on the initial TUS, NSAHP and GHP data for 2005. Simultaneously in 2006, the gender disaggregated time-use and household data from the initial CHS could form the basis for the construction of both gender-aware macroeconomic models of the total economy—both household and market—and for gender-based micro-simulation models of household production.

236. The new household-survey-based modern statistical system should spread across Africa, as countries re-adjust budgets to provide adequate resources to their national statistical organisations. As part of this programme the African countries should produce three new statistical systems—an African System of Time Accounts (ASTA), an African System of Household Accounts (ASHA) and an African System of National Accounts (ASNA).

3.2 Who will Use Continuous Household Survey Data?

To give some order of magnitude, a national sample survey of 5,000 households might cost approximately $US 100,000. Such a survey could provide accurate data about an entire population of 5 million households of a country much faster than other forms of large-scale household surveys (Ironmonger, 1994). This would obviously vary from country to country for a range of reasons.
237. When a national statistical office is considering a new data request, there are a number of questions that require answers to justify funding. These include: 'What needs to be measured?' 'Who requires it?' 'For what purpose?' and, 'What are the policy implications? The New Guide attempts to answer these questions.

238. The CHS would be a valuable tool for different users, and it would target both producers and users of micro- and macroeconomic statistics as follows:

- National statistical offices involved in the collection of micro- and macroeconomic statistics and the preparation of the national accounts. Statisticians will find the CHS particularly useful in terms of the new methodologies and tools that will be introduced for collection and analysis of gender-disaggregated data in time-use surveys. Sound data collection is crucial to policy formulation and to public action.
- Policy analysts will find both the NTA and NSAHP useful for the extension of the monetary accounts to cover non-market transactions for policy formulation, analysis of policy impacts on women, growth and poverty reduction and hence for informed decisions.
- National accountants who prepare and are concerned with national accounts of good quality, which try to cover all levels of economic production including value added as a result of introducing the NSAHP.
- The Guide is designed to enable these target groups to use or adopt training materials from the modules for use by national training teams.

How Do We Do It?

3.3 Proposals for Africa

239. The 53 countries of Africa do not have a comprehensive system to collect regular statistics from a representative sample of households on a monthly or even a quarterly basis — in stark contrast with the disposition of statistical resources in Australia and in many other developed countries with more adequate provisions for statistics.

240. Although most African countries have censuses of their populations every five or ten years, these complete enumerations of the population are expensive and are unable to provide timely data on economic participation. The modern, scientific and cost-effective way to obtain timely statistics is by sample surveys of households. The institution of regular (initially quarterly and now monthly) household sample surveys has been the major development of the past 30 years in Australia enabling the production of gender-disaggregated statistics on a wide range of issues.

241. Regular household sample surveys were started in Australia in 1965 as the means to obtain regular and accurate estimates of employment and unemployment when it was realised that establishment-based surveys were inadequate. The setting up of a permanent household survey organisation within the Australian Bureau of Statistics was perhaps the most significant step in enabling the bureau to become the second most highly regarded statistical office in the world, after Statistics Canada, which also has an excellent permanent household survey organisation.

242. Regular household surveys are noticeably absent in African countries. Sometimes when household surveys have been conducted, inadequate provision has been made to tabulate and publish results. Nevertheless, given sufficient resolve and a modest amount of resources, accurate and reliable gender statistics on employment, unemployment and work in Africa could be obtained
through sample surveys of households, avoiding the high collection and processing costs of censuses.

3.3.1 Half-yearly work and employment surveys

243. Accordingly, it is recommended that the national statistical offices of Africa commence a series of half-yearly employment surveys of a sample of both urban and rural households. The data should be collected and processed within three months — that is, June figures should be available by 30 September and December figures by 31 March. In addition to covering paid work in the ‘market economy’ the surveys should cover unpaid work in subsistence agriculture, in childcare and in household duties and participation in education. The extent of participation in all major spheres of activity could be collected in terms of hours of work last week using what is known as the ‘stylised’ approach of direct questions (INSTRAW 1995b, p. 61):

This is the most widely used approach to obtaining data on time allocated to specific activities. The questions require the respondent to recall the amount of time they allocate, or have allocated, to specified activities over a specified period such as a day, week or year.

244. The gender-disaggregated hours of work statistics derived from these work and employment surveys would correct the distorted view of the work that is usually presented from the census of population. The census counts heads according to a priority ranking that puts paid work ahead of ‘village work’ and both of these ahead of childcare, housework and education. The surveys would provide the governments and people of each of the African countries with an invaluable picture of the use of human resources in their own countries. As a consequence the economic and social development discussions and policy decisions in each country would be based on much better information. For example, time allocation can be a key determinant of the health and education of children.

Unless there is an adequate awareness of the inter-relationships among alternative uses, specific policies may have counter-productive secondary effects. It is stated that UNICEF should:

... actively advocate those policies and programme approaches that protect children and vulnerable groups in times of economic hardship. It is essential to ensure that any restructuring of the economy does not neglect the interests of children whose survival and development cannot be postponed without causing irreparable damage [emphasis in the original]. (INSTRAW 1995b, p. 103)

245. Once established, the continuing survey organisation could be used by the national statistical offices to collect a variety of other statistical information relevant to government policy and community interest such as health, nutrition, housing conditions, expenditure and income.

246. The African countries have different population sizes and household numbers (ranging from Nigeria with 23 million households down to Seychelles with 13 thousand households). To achieve country estimates with the same reliability it will not be necessary to have the same sample size or sampling fraction. Large countries can have smaller sampling fractions than small countries. Thus in Nigeria the sample could be say 6,000 households (a sampling fraction of one in 4,000), but in Seychelles the sample could be 1,000 households (one in 13). With the survey being every six months, it is suggested that a one-third sample rotation be adopted so that each selected sample household would be interviewed initially, again in six months time and finally six months later again. Each household is only in the survey for just over one year.
3.3.2 A diary-based survey of the time spent by women and men

247. To provide a more comprehensive and more detailed picture of the economic contribution of women in Africa it will be necessary to use a diary-based survey. This would measure the time spent by women in various economic activities within the formal, informal and domestic sectors and would then use the methodology developed to value women’s contribution to gross economic product, both SNA and non-SNA activities.

248. Although the focus of this survey would be the time spent by women, the study should also examine the time spent by men and possibly by children below the age of 15 years. The diary based time-use survey in India collected data for all the population aged six years and older. The objective of the African survey would be to provide benchmark estimates of the average hours per week spent by women and by men in each sector of economic activity. To enable these time inputs to be given appropriate economic values, the time-use survey should also collect data on the main subsistence and household sector commodity and service outputs.

249. The survey in each country should be across representative samples of households in both urban and rural areas and across the seasons of the year. Pilot surveys would be needed to test survey methodologies and to train the field collection staff. The survey should involve the official statistical office in each country, which would need technical and financial support to conduct the survey.

250. The survey methodology for collecting time-use data from representative samples of households in developed countries is now quite well established. Over the past five years a consensus about methodology has been developed between the national statistical offices of several countries.

251. Recently this has been refined by the countries of the European Union, who have conducted pilot surveys and agreed on common classifications in preparation for the harmonised survey of time use in Europe. Diary-based surveys of all persons in sample households aged 12 years and more reporting their activities for two diary days (one week day and one weekend day) has been used. Samples of at least 5000 households in each country were recommended. These surveys are almost identical in methodology to the 1992 survey of time use in Australia. Australia conducted its second nationwide time-use survey in 1997 and New Zealand conducted its first in 1998.

252. An African time-use survey would be expected to build on these now quite well established methods and apply them to the circumstances of the five countries. In the few urban areas, and in rural areas with high literacy levels, the usual method of a fieldwork interviewer distributing diaries to be completed by household respondents over the coming week would be applicable. In other areas it would be necessary for the field staff to collect time-use information by direct interviews, covering recall of the previous day’s activities by respondents.

253. Cooperation between the African statistical offices should enable economies of scale to be achieved in coding, editing, tabulation, publication and preparation of unit record files for research. A central operations centre and processing facility could be established to facilitate the successful conduct of the first continent-wide time-use survey in Africa.

254. A range of staff would need to be involved. Survey field staff would be needed in all countries, both to pilot test the survey instruments and to do the actual collection of household diaries. To capture seasonal variations in activity, especially in rural areas, it is expected the survey
would take place over 12 months. Sample households would report on their activities during only one survey week. The editing and coding of data would be done at a central processing centre to ensure that classifications of activities are treated consistently.

255. A three-year time frame would be needed — the initial consultation with national statistical offices and pilot studies in the first year, the collection of data in the second year and coding, editing and preparation of publications in the third year.

3.4 Strategies for Measuring Household Production

256. The Guide’s strategy for measuring and valuing GHP draws on and combines a broad range of current ideas and practical experiences, for example as described by the ESCAP, OECD, UNSD, ILO etc. The use of the NGA is guided by the following principles:

- A national statistical system should have gender-disaggregated data on all sorts of work—paid and unpaid, SNA and non-SNA.
- The major data users should also be informed and involved. Given that exhaustive coverage is an important aspect of quality, analytical work on GHP should be mainstreamed into other quality management initiatives in national accounts and satellite accounts of household production.
- There should be systematic analysis of household economy problems and potential solutions. This analysis should be based on a comprehensive conceptual and analytical framework that helps categorize household economy activities or the methods appropriate for their measurement.
- Assess the basic data being supplied to the national accounts and satellite accounts of household production. Assess the compilation methods, identifying the extent of non-observed and non-measured activities and establishing priorities for dealing with them, both in the immediate future and the longer term.
- Identify potential improvements in the national accounts and satellite accounts compilation process that will review household production activities through model based adjustments and using the results of supplementary surveys. Such indirect measurement methods can be introduced relatively quickly and cheaply in comparison with changes to the basic data collection programme that may require substantial additional resources. These methods can provide short-term solutions to data problems that should ultimately be remedied by improvements in data collection. They may also be long-term solutions to chronic under-coverage and under-reporting problems that can never be solved at the data collection stage.
- Identify potential improvements in the infrastructure and content of the basic data collection programme that will place a proper emphasis on household production and bringing the data collection programme into line with international standards and best practices.
- Develop an implementation plan and consult users, prioritising the potential improvements, ensuring good communication between survey statisticians and national accountants, and dealing with revisions to national accounts resulting from the changes.
- Implement a programme of action for a number of African countries to start co-ordinated programmes of small continuing household surveys. These surveys are essential starting points to provide the time-use accounts and other data necessary to implement satellite accounts of household production. These surveys and accounts will then provide a better basis for gender responsive budgets and policy options.
Table 3.1 Programme for Action

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<td>2. Organise Continuous Household Surveys</td>
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<td><strong>4. Prepare Satellite Accounts of Household Production</strong></td>
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<td>Use New Gender Data to Model Budget Effects</td>
<td>Gender Responsive Budgets</td>
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**NOTE:** The target dates for completion of the five parallel areas of work involved in the programme set out in table 4.1 are:

1. **Design African Systems of Accounts**
   - June 2005: African System of Time Accounts
   - Draft completed

2. **Continuous Household Surveys**
   - December 2004: Conduct Pilot Survey
   - May 2005: Conduct First Survey
   - November 2005: Conduct Second Survey
   - Continues every half-year onwards
   - Results March 2005
   - Results September 2005

3. **National Time Accounts**
   - December 2005: Methodology Report
   - June 2006: First Accounts for 2005
   - Continues every year onwards
   - Completed
   - Estimates produced

4. **Satellite Accounts of Household Production**
   - December 2005: Methodology Report
   - June 2006: First Accounts for 2005
   - Continues every year onwards
   - Completed
   - Estimates produced

5. **Gender Responsive Models and Budgets**
   - June 2005: Framework Report
   - June 2006: Models Calibrated for 2005
   - September 2006: Model Budget Effects for 2007
   - December 2006: First ORB for 2007
   - Continues every year onwards
   - Prepared
   - Completed
   - Completed
   - Completed
   - Prepared
Module 4

National Time Accounts and Satellite Accounts of Household Production

Some Important Concepts

4.1 What are National Time Accounts?

National Time Accounts (NTA) are a set of estimates of our total income and expenditure of time, similar to the estimates of national income and expenditure, which account for our market transactions in monetary units. Proposals for the development of national time accounts have been set forward in papers presented to the Rome and Amsterdam meetings of the International Association for Time Use Research (Ironmonger, 1993a; 1994b) and at the International Association for Research on Income and Wealth in Lillehammer, Norway in August 1996 (Ironmonger, 1996).

National time accounts will provide measures, on a continuous and up-to-date basis, of how households allocate time between paid work, unpaid work and leisure. The estimates will show totals for these broad allocations both for men and for women according to the standard categories of industrial activities (for paid work) and standard categories of household production and leisure for the remaining uses of time. (See Table 3.1)

4.2 What is the purpose of National Time Accounts?

A system of national time accounts would provide a basis for international comparisons and for greatly improved modelling of our economic and social systems.

The principal benefit from the provision of regular national time accounts would be a more complete perspective and understanding of the role of households in the total economy, not only in regard to household productive activities, but also in relation to leisure activities and the interactions between the household and the market. The enhanced understanding of the dynamics of the economic and social systems in every country should provide a better basis for making policy decisions over a wide range of business and public affairs.

However, the development of NTA should be an interactive process between the model builders, the policy makers and official statistics offices, as it was in the development of the national income accounts and the uses of these accounts in model building and policy-making. Apart from the insights derived from international comparisons, comparisons over time of changes in the NTA aggregates will serve three main purposes (Ironmonger, 1993).

First, they provide a more complete understanding of households than is available from accounts, which focus solely on the use of money. The detailed activity classifications of the use of
time available from the national time accounts will reveal changes in household work and leisure associated with the major changes in household technology, household demography, market incomes and market prices.

Table 4.1: Draft Structure of National Time Accounts National Time Account (Country) (Year) (Millions of hours per week)

<table>
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<th>Household Population</th>
<th>Others</th>
<th>Total Population</th>
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<td>Boys</td>
<td>Women</td>
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<tr>
<td>Finance &amp; Business</td>
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<td>Community Services</td>
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<tr>
<td>Entertainment etc</td>
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<tr>
<td>Other Industries</td>
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<tr>
<td>Work travel</td>
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<tr>
<td>TOTAL MARKET WORK</td>
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<tr>
<td>HOUSEHOLD WORK</td>
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<tr>
<td>Meal Preparation</td>
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<tr>
<td>Cleaning &amp; Laundry</td>
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<td>Shopping</td>
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<td>Child Care</td>
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<td>Repairs &amp; Maintenance</td>
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<td>Gardening &amp; Pet Care</td>
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<tr>
<td>Other Household Chores</td>
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<td>Voluntary Community</td>
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<td>Household Travel</td>
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<tr>
<td>TOTAL HOUSEHOLD WORK</td>
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<tr>
<td>EDUCATION</td>
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<tr>
<td>Pre School</td>
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<td>Secondary</td>
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<td>Tertiary</td>
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<td>Continuing</td>
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<tr>
<td>Education travel</td>
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<td></td>
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<tr>
<td>TOTAL EDUCATION TIME</td>
<td></td>
<td></td>
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<tr>
<td>TOTAL WORK AND EDUCATION</td>
<td></td>
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</tbody>
</table>
Table 4.1: Draft Structure of National Time Accounts (Continued) National Time Account (Country) (Year) (Millions of hours per week)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Household Population</th>
<th>Others</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
<td>Adults</td>
<td>All Ages</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>Boys</td>
<td>Women</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>Males</td>
<td>Persons</td>
</tr>
</tbody>
</table>

| LEISURE               |                      |        |                  |
| Eating & Drinking     |                      |        |                  |
| Entertainment, Friends|                      |        |                  |
| Active Leisure        |                      |        |                  |
| TV, Radio, Stereo     |                      |        |                  |
| Reading               |                      |        |                  |
| Other Passive         |                      |        |                  |
| Leisure Travel        |                      |        |                  |

**TOTAL LEISURE TIME**

| SLEEP & PERSONAL CARE |                      |        |                  |
| Sleep                 |                      |        |                  |
| Personal Care         |                      |        |                  |
| Personal care travel  |                      |        |                  |

**TOTAL SLEEP & PERSONAL CARE**

**TOTAL FREE TIME**

263. Second, national time accounts provide a better understanding of the total economy which comprises not only market production from the formal sectors but also non-market production from the informal or household sector. As we know, non-market production by households is a very large aggregate and uses at least as much labour as market production. Unpaid work is at least as large as paid work. The work input for the total economy is thus twice as large as what is currently measured as work. In fact NTA provide the starting point for mainstreaming gender in national statistics and a better basis for making gender-aware policy decisions over a wide range of business and public affairs in rural development (Latigo A, 2004).

264. Finally, national time accounts, since they cover all of work and leisure, give a better basis for economic and social policy decisions than incomplete measurements, which concentrate solely on paid work in the market economy. A wide range of policies covering human resources, labour compensation and benefits, safety and health, retirement benefits, income distribution and financial settlements need to be re-examined in the full light of what a complete accounting of time shows us (Ironmonger, 1993).

265. New data on gross household product: Two new sets of data follow from the regular estimate of sets of national time accounts. These are: (i) Regular estimates of Gross Household Product (GHP) and (ii) Regular household input-output tables, which are the satellite accounts of the household economy. The GHP estimates are derived from NSAHP.
266. Input-output accounts: Input–output accounts of the household economy provide estimates of the total values of the inputs of labour, capital, energy and materials into the several sectors of household production. Household input-output tables extend the Leontief input-output framework of the national production accounts to show the complex interdependence between household and market activities in a more realistic way. It emerged from the April 1993 International Conference on the Measurement and Valuation of Unpaid Work organized by Statistics Canada in Ottawa that the household input-output tables discussed in this paper are NSAHP, which the latest revision of the SNA recommends national statistical offices should develop.

267. The limitations due to the definition of the production boundary of the SNA do not preclude making estimates of the values of household production. The SNA 1993 has recommended compilation of satellite accounts with the SNA as the central framework for concepts and various types of analysis that are additional to or differ from those in the central framework. A satellite account provides a framework linked to the central accounts, and it enables focused attention on an aspect of economic or social life (for example, household production) in the context of the national accounts.

268. A component of market production included within the SNA production boundary is the production by households of all goods their own final use and the provision of owner-occupiers with dwelling services (‘imputed rents’). In addition, work performed by family workers without compensation in family business enterprises is part of market production (in the former SNA, they were referred to as ‘unpaid’ family workers until the 4th revision in 1993 where they became ‘contributing’ family workers).

269. The Guidebook draws on the 1993 SNA for the terms used in the definition of household production, including:

- **Household production for own final use**: productive activities that result in goods or services consumed or capitalised by the households including unpaid work that produced them.
- **Satellite accounts of household production**: sets of accounts developed to cover household production. They follow the general structure of the SNA but include household activities that are outside the coverage of the SNA. The SNA generally recognises that household production is a part of economic activity.
- **Gross domestic product (GDP)**: is as a measure of total national value added, income and expenditure in the market economy.
- **Value added**: is the difference between the total value of the output of a production process and the total cost of the intermediate inputs to production (energy, raw materials, other expenditures comprising services, outsourcing or sub-contracted works).
- **Intermediate inputs**: consists of the value of goods and services used as inputs by a process of production, excluding the use of labour and fixed capital assets; the intermediate inputs may be either transformed or used up by the production process.
- **Gross income**: (operating surplus or mixed income) is the difference between value added and compensation of employees (wages and salaries + social contributions) and taxes related to production.
- **Gross or net wage**: includes income tax and employer's social security contributions. The choice of either gross or net wage for the purpose of determining the value of household production has significant implications. Taxes and social security contributions may amount up to half of the wages depending on the country and the welfare system.
• **Mixed income**: is the surplus or deficit accruing from production by unincorporated enterprises owned by households. It contains an element of remuneration for work done by the owners and other members of the household that cannot be separately identified from the return to the enterprise (as entrepreneurs and owners of the capital of the enterprise).  

### 4.3 What are National Accounts?

270. The System of National Accounts is an integrated framework based on a set of precise and consistent concepts and rules and pursuing certain objectives.

271. National accounts are the set of aggregate accounts on the value and breakdown of all income and all output of the market economy. One of the key concepts in the national accounts is that of production. The rules of the 1993 SNA for the production boundary determine what is to be included as production and what has to be excluded and set the scope of most current and capital transactions in the national accounts.

272. The production boundary plays the following roles in the national accounts:

- Determines what is to be included in the accounts as output;
- Because the 1993 SNA recognises only uses of produced goods and services, the boundary also determines the scope of intermediate consumption, and thus, value added;
- For the same reason as above, the production boundary also determines what is to be included as household consumption and other final uses;
- Because the 1993 SNA recognises only income generated through the production process, the production boundary also determines what should be included as income; and
- It determines what is saving (which is the difference between disposable income and final consumption) and net lending and borrowing (which is the final balance of the capital account).

273. Comparability of national economic performances is also vital for assessing progress and obstacles and for designing adequate policy measures. At international level, the System of National Accounts (SNA, 1993) provide the statistical agencies with the definitions, concepts, methods and the framework to compile comparable GDPs with data from various sources.

274. Module 1 has already covered production, economic activity and work. For national accountants, the treatment of household production in a satellite account is an elegant and sufficient solution to the questions raised by feminist economists and micro economists.

275. For the purpose of this Guide, the households and the non-profit institutions serving households are the two main sectors concerned by the extended boundaries of production and the process of engendering national accounts.

### 3.4 What are Satellite Accounts of Household Production?

276. NSAHP are sets of accounts developed to cover household production. They follow the general structure of the SNA but include other transactions that are outside the SNA but still

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7 There is a special treatment in the SNA for the operating surplus coming from owner-occupied dwellings. In effect, this ownership is treated as if owner-occupied households were unincorporated enterprises charging themselves rent for their own dwellings. This imputation adds as much as 10 per cent to GDP in countries such as Australia. In reality, it should be included in GHP rather than GMP.
connected with the household economic activities. The SNA generally recognizes that household production is a part of economic activity.

Construction and analysis of the outcome of National Satellite Accounts of Household Production (NSAHP) - Input-Output tables of household production using gender disaggregated data, as well as the integration of satellite accounts of NSAHP into standard Input-Output tables or social accounting matrix (SAM) to make these frameworks not only gender responsive, but representative of the total economy of both non-market and market work is the actual process of mainstreaming gender in national accounts, budgets and policies (Latigo A., 2004).

277. However, NSAHP depend on the collection of reliable data on the use of time. Unless surveys of time-use are conducted every year, it will not be possible to extend the SNA on an annual basis to cover the productive activities of women (and men) in households. In many countries estimates of GNP and GDP are produced quarterly. This means that to produce estimates of gross household product (GHP) with a comparable frequency, time-use data will need to be collected on a quarterly basis.

278. Until now household production is not included in core accounts of the SNA. The Inter-secretariat Working Group on National Accounts is currently undertaking the updating of the SNA, a process to be completed by 2008. While a number of issues are under review, a revision and expansion of the production boundary is not intended. However, the limitations due to the narrow definition of the production boundary of the SNA do not preclude making estimates for measuring household production. It could be best approached in a satellite framework. The SNA recognizes flexibility, it can be used and adopted at different degrees of detail and its accounting framework can be supported by satellite accounts. The 1993 SNA suggests how satellite accounts can be used to present concepts that are additional to or differ from those in the central framework. For example, the Handbook on non-profit institutions that successfully elaborated recommendations in consistency with the SNA framework in the form of proposing a satellite account.

279. Satellite accounts or systems are methods by which the central framework of the SNA is expanded to increase the analytical capacity of the system without overburdening or disrupting it. These accounts allow for:

- The provision of additional data on particular concerns such as household production;
- The use of alternative or complementary concepts, classification and accounting framework;
- Extended coverage of costs and benefits of human activities;
- Further analysis of data by means of relevant indicators and aggregates; and
- Linkage of physical and monetary data.

280. If for any purpose – research or policy – these objectives or these rules and concepts were to be changed or made more flexible, it has to be done in a satellite account: identifying education or health in the SNA, or the cost and the impact of economic activities on the environment for example, are typical issues to be treated within a parallel system of satellite accounts. The measurement of household production is also a case susceptible of such a treatment. In addition, a satellite account of household production can use the central framework without any change except the use of an extended concept of work.
4.5 Why Satellite Accounts of Household Production Now?

281. The aim of the NSAHP is to provide an overall picture of the productive activities undertaken by households and to give an estimate of the value of household production. A small part of this production is covered by SNA, but most of it including NMW is not, hence the need for this guidebook.

282. The main purpose of the NSAHP as outlined in the introduction of this Guide is to obtain separate estimates of GHP. These estimates can then be used to trace the joint evolution and interaction of the two economies – the monetary Market Economy and the non-monetary Household Economy. If we wish to add the two economic magnitudes together to get a total measure of Gross Economic Product (GEP), we have to make a large reduction to the GNP/GDP estimates on account of imputed value of owner occupied housing which rightly falls in the non-monetary estimate, GHP. In Australia this adjustment is about 10 per cent of GDP to give another entity named Gross Market Product (GMP) (Ironmonger 1998).

283. Some researchers in this field have referred to the sum of SNA and non-SNA production as "extended production" (Goldschmidt-Clermont 1995). GEP is the name for this extended value. GEP = GHP + GMP.

284. NSAHP present data in such a way that they can be aggregated across the various categories of household production activities, and that they are compatible with national accounts data in order to describe and analyse the extended economy.

285. Examples of analyses that can be done with NSAHP

- Determining the respective orders of magnitude of household production and of the market sectors of the economy.
- Comparing the share of the market and of households in supplying given goods and services, and respectively, determining the shares of market production and household production in extended private consumption.
- Comparing the share of market-generated income and of income generated by own-account production of households.
- Analysing the trade-off between household production and market production, and the impact of one on the other (for example, which market products become available or disappear from the market and how this is reflected in the composition of goods and services that households produce, the dynamics of this impact over time and across different socio-economic groups).
- Increasing the comparability of measures of extended production within a country at different points in time, also enabling the analysis in the perspective of long-term growth, productivity, distribution, and capital formation.
- Improving the comparability of the size of the economy across different countries by including both market and all non-market production. This calls for developing transparent methods that are harmonized to a sufficient degree – which is a desirable long-term goal.
- Policy makers can benefit from information provided by SAHP and its integration into extended economic analysis.
- SAHP draws attention to unpaid work and may constitute a first step to a modified and wider concept of labour.
286. As seen in module I, the current 1993 SNA excludes a majority of productive activities including unpaid work undertaken in the household. The services provided have enormous repercussions for the rest of the economy. The services produced have typical market substitutes. Consequently, the imputed values are equivalent to the monetary values for analytical and policy-making purposes.

287. As the current SNA is based on marketed goods and services, it does not include household production. Work such as domestic services, child-care and care of the sick and elderly, as well as community services remain excluded. Such services are not only critically vital for the economy as a whole, but need to be taken seriously in development planning given the growing dynamics of their interface with the market economy. In developing countries, especially in Africa, the line between marketed and non-marketed services is an arbitrary one.

288. The major problem that has been resolved is that of accounting for household production, its measurement and valuation. Regionally compatible and comparable methods to measure and value household production can be developed for Africa. In Africa especially where women do most of the household work, ECA’s programme on household production is indeed timely for measuring outputs, imputing values and calculating the total value of household production, and providing estimates on women’s and men’s contributions to GHP and GMP. The work of ECA and its partners shows that there are tools to design a common framework of household production for use in developing a Satellite Account of Household Production. As discussed in the introduction, ECA’s initiative to develop an Africa-specific Guide is a step forward in developing regionally comparable NSAHP.

289. The ECA has paid particular attention to Africa by adapting tools for accounting for household production to suit the conditions in the continent. For example, the lack of resources in African countries hinders regular time-use studies. The large proportion of the population in Africa that is illiterate makes it necessary to adopt Africa-specific techniques and methodologies.

290. In addition to the rationale to have an Africa-specific approach to establishing NSAHP, there are also other reasons for NSAHP related to poverty reduction strategy that allow for more accurate analysis of:
- inequality in the distribution of household production
- productivity changes in household production and shifts in women’s work and family welfare;
- the contribution of women to GHP and GMP for sound policy and budget formulation.

291. In many countries, labour force statistics not only underestimate the number of women but also the number, the variety and the importance of their economic activities: female participation rates in the market economy are still very low in various regions (Middle East, North Africa, India, Latin America). The present labour statistics record women as relatively more numerous than men in the informal sector, informal employment, and production for own final use, as own-account workers or as contributing family workers. Moreover, women are usually more involved than men in secondary activities and multiple jobs. As a consequence, not only their contribution to production is likely to be underestimated but also their share of money income. In other words, a great number of women are invisible on the production side and on the income side as well. This means that in the SNA, the production and the income approach fail to fully estimate women’s contribution. A part of the value added is missing on both sides of the national income and expenditure accounts.

292. Currently the production of the household economy comprises both market and non-market production - all production for own final use - of all individual entrepreneurs as well as imputed
Tents. These components of household production are included in the central framework of the SNA. A satellite account of household production has to deal with the unpaid domestic services of the care economy to which it can be limited. But an extended satellite account can also include the part already measured and identified in the SNA.

293. It must therefore be decided whether the satellite account will be only comprised of the ‘unpaid work’ or if it will also include ‘paid work’, that is to say both the non-market production of households (which is called ‘paid work’ because shadow wages are imputed to the contributing family workers and income for work are imputed to the own-account workers as part of their ‘mixed income’). It must also be decided to include or not the household market production of individual entrepreneurs. In the current practice of national accounts across Africa, many non-market SNA activities (included in ‘paid work’) are not actually measured in the GDP (fetching water and firewood for instance are not even mentioned in some countries while they are included in some other countries such as Burkina Faso and other Francophone countries).

294. Because satellite accounts of household production result from the simple extension of the production boundaries, the types of accounts needed remain the same as in the central framework: production account and generation of income account, according to the following sequence where the components in bold are obtained by balance:

Table 4.2: Components of the Production Account and of the Generation of Income Account

<table>
<thead>
<tr>
<th>Uses</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production account</td>
<td>Output</td>
</tr>
<tr>
<td>Intermediate consumption</td>
<td>Mixed income</td>
</tr>
<tr>
<td><strong>Gross Value Added</strong></td>
<td><strong>Value added</strong></td>
</tr>
<tr>
<td>Consumption of fixed capital</td>
<td>Generation of income account</td>
</tr>
<tr>
<td><strong>Net Value Added</strong></td>
<td>Compensation of employees (labour)</td>
</tr>
<tr>
<td>Generation of income account</td>
<td>Taxes on production</td>
</tr>
</tbody>
</table>

295. The availability of time-use data suggests that the various components of the two accounts above be calculated from the compensation of labour: a number of hours per year are known for each activity and they are evaluated by imputing wages (an issue which is treated in the next paragraphs below). Some countries have based their estimates on this single figure: compensation of labour is taken as a proxy of value added and the resulting value added is taken as a proxy for production; similarly the same figure will be taken as a proxy for disposable income. The exercise then consists of adding up the same estimate on both sides (uses and resources) of the three accounts (including the ‘use of income’ account).

296. Building a full satellite account for household production requires estimation of intermediate consumption, consumption of fixed capital and taxes falling into the process of household production. This is a much more difficult exercise. In the SNA, all household consumption (except for individual entrepreneurs) is final consumption and the only fixed capital in the household is housing (purchase or self-construction). As soon as provision of nutrition, of clothing, of care and education and of housing are defined as ‘household production’, then a part of final consumption becomes intermediate consumption and another part becomes purchase of fixed capital, subject to consumption of fixed capital and depreciation. Consequently, all household final consumption
must be disaggregated into three parts: final and intermediate consumption and fixed capital, following the classification of products and of activities.

297. The ways in which the various intermediate inputs, labour and capital components need to be treated are extensively discussed by Ironmonger and Sonius (1989), Thoen (1993), Ironmonger (1996) and Eurostat (1999/2000) Varjonen. The availability of data is not a real issue as budget-consumption (or income-expenditure) surveys provide detailed results of expenditures and consumption by products, with market prices.

**How Do We Do It?**

### 4.6 Methods of Valuation of Household Production

298. Three methods can be used to value household production for constructing satellite accounts:
- the output-based method,
- the input-based method using the opportunity costs,
- the input-based method using the market replacement cost.

#### 4.6.1 Output-based Method

299. In this method, production is valued on the basis of the output and from the output are derived the value added and the other significant components of the national accounts. This **output-based method** is preferred in national accounts. One needs:
- household output measured in physical units;
- intermediate consumption, measured in either physical or monetary terms; and
- market prices for physically measured items in either of the above two methods to be able to convert them into monetary measure.

300. The number of prepared meals can be calculated using the value of similar meals in a restaurant, but the number of shirts washed or ironed is more difficult to calculate and the computation of each detailed unpaid service may lead to resort to too many assumptions and complications: the number of square meters of floor to be cleaned for instance. The argument is even stronger for developing countries where the equivalent goods and services may not all exist on the market. Then, estimates of intermediate consumption and consumption of fixed capital have to be calculated in order to generate an estimate of value added. It must be noted however that the other methods do not exempt proceeding the other way round to get the same estimates, because national accounts cannot be limited to the unique estimation of value added.

301. The output-based method of satellite accounts can be summarised as being consisting of the following elements:
- Value of outputs \( (\text{quantity} \times \text{price}) \)
- Intermediate Consumption
  \[ \text{Gross value added} \]
- Consumption of capital – Taxes on production + Subsidies on production
  \[ \text{Mixed income (residual, including compensation of labour and capital).} \]
4.6.1 Input-based Methods

302. The input-based method of satellite accounts can be summarised as being consisting of the following elements:

\[
\text{Value of labour (time unit from time-use studies valued at suitable wages/time)} + \text{Taxes on production} - \text{Subsidies on production} + \text{Consumption of capital} = \text{Gross value added} + \text{Intermediate consumption} = \text{Total output}
\]

303. The input-based methods, which most time-use studies in the recent period used, involve application of the costs of inputs to value household production. The approach is also used as one method in conventional national accounts as an alternative to output-based methods. The input-based method for valuating household production is similar to that for the valuation of non-market government services or non-profit institutions services, that is, by summing up costs of labour inputs, net taxes on production and intermediate consumption. In all these, value added is equal to the costs of labour inputs. Such valuation is based on time spent in the various activities multiplied by the corresponding salaries. Time and salaries are supposed to be easier to obtain than volumes and prices. But the issue of wages is more complicated because it raises several questions.

304. To value unpaid work based on wages, the common approaches are:

- opportunity cost,
- replacement cost (specialist), and
- replacement cost (generalist).

(i) Opportunity cost:

305. The cost of wages forgone is viewed as a result of opting to offer services in the market. The valuation will change depending upon who is engaged in the unpaid work. The approach values the time spent on unpaid work based on the forgone income of the unpaid household member had this member opted to provide labour services in the market. For example, if a mother with a post-graduate degree, opted to stay at home to take care of her children and manage the household, her unpaid work would be priced according to her compensation in paid employment. This method requires data on the occupation of the worker that will match with the occupation in the market and the compensation rate. Moreover, the method also implies that there are always opportunities in the labour market for the person. In countries where there is excess supply of labour, this method would tend to overestimate the price for unpaid labour.

306. The main argument against the opportunity cost method is that very different values can be imputed to the same activity depending on who performs it, within the same household or in different households: painting a house will be valued more if done by an engineer than if done by a house painter. Moreover the reservation wage (that is the wage rate for which a person will accept the job and leave their present situation) can be higher than the "offered" wage to explain why the house-worker prefers to stay at home: a disputable issue, actually.
Opportunity Cost Approach (OCA)

OCA computes the wage lost from performing unpaid work. In order to measure the value of unpaid work:

$$EV = HUP_{ik} \times HW_{ik} \times P_{ik}$$  (1)

- $EV$: Economic value of unpaid work
- $HUP$: Total hours of unpaid work
- $HW$: Hourly wage rate
- $P$: Number of housekeepers
- Letters $i, j, k$ refer to sex, age and educational level respectively

307. In the opportunity cost method the value of housework time equals the market wage rate of that person; it is his or her opportunity cost of time. Average wages have also been used for valuing the opportunity cost. The most apparent problem with this method is that it yields different values for similar products depending on who performed the task. Therefore, the method has been widely rejected by researchers.

(ii) Replacement cost (specialist)

308. This approach uses the wage paid to a person who produces similar services in the market (that is, wage = wage rate * time spent). It is applied to specific household own-account services. For example, cooking would be valued at the wage rate of employed cooks, laundry of paid laundry workers, caring of children to paid nanny, etc. This method assumes that the quality of the same services would be the same and that these occupations are found in the market.

(iii) Replacement cost (generalist)

309. This method values the unpaid work by the equivalent wages of paid domestic help (that is, wage = wage rate * time spent). The wage depends mostly on the country’s labour market situation. In some countries, where wages of domestic help is legislated, the price would be available; in others pricing would require additional statistics from labour and employment or household income and expenditure surveys.

310. The replacement cost method provides three options:

- The first option is to use the wages of specialised workers in market enterprises. Specialised workers in certain occupations perform similar activities as are done in households, for example, a cook in a restaurant. The problem is that working conditions differ between households and market enterprises: capital investment is higher and production is organised differently (for example, specialisation of tasks and skills). These circumstances have an impact on productivity. In housework, several tasks are performed simultaneously, whereas in enterprises the work may resemble line production. On the other hand, housework may be combined with leisure activities, resulting in less intensive working.

- The second possibility is to use the wages of specialised workers at home. One can buy services of a specialised worker (for example, a cleaner or a nurse) who comes to work in a household. These workers may use tools and materials of their own or those available in the household. These specialised workers focus on one task at a time. These kinds of services require a different type of product. 

- The third option is to use the wages of specialisation at home. This option is based on the assumption that the quality of the work performed at home is the same as that performed in market enterprises. The problem is that working conditions differ between households and market enterprises: capital investment is higher and production is organised differently (for example, specialisation of tasks and skills). These circumstances have an impact on productivity. In housework, several tasks are performed simultaneously, whereas in enterprises the work may resemble line production. On the other hand, housework may be combined with leisure activities, resulting in less intensive working.

- The fourth possibility is to use the wages of specialisation at home. This option is based on the assumption that the quality of the work performed at home is the same as that performed in market enterprises. The problem is that working conditions differ between households and market enterprises: capital investment is higher and production is organised differently (for example, specialisation of tasks and skills). These circumstances have an impact on productivity. In housework, several tasks are performed simultaneously, whereas in enterprises the work may resemble line production. On the other hand, housework may be combined with leisure activities, resulting in less intensive working.
specialised workers are generally available only for a limited number of activities performed by households.

- The third alternative is to use the wages of generalist workers (polyvalent substitutes). One can hire a person to work in the household doing all the tasks that the normal running of the household requires. In some countries there are institutionalised household substitutes who do most of the tasks required to manage a household. Most often they are responsible for visiting elderly people or helping when the mother is ill. However, domestic employees do not usually undertake all household tasks, particularly those related to management, as well as volunteer and community work.

311. The market replacement cost method with a specialised worker is quite complicated because several wages and wage levels have to be examined to find an appropriate combination of wages for different tasks. There are some activities for which no specialised market substitute can be found.

312. For satellite account purposes, this third option is to be preferred (Varjonen, 1999). It can be noted that values obtained through the opportunity cost method are generally twice as high as the values obtained by the replacement cost method using the wage of generalist workers.

313. The market replacement cost method with a generalist’s wage seems to be the most appropriate basis for valuing household labour. The advantages of this method are as follows:

- The working conditions are similar to those of household work, including the simultaneity of activities, the quality of capital goods, the amount of intermediate consumption, etc.; this means that productivity is similar to that of housework in general
- The contents of the work are rather similar to the contents of housework
- The method of valuation is simple and straightforward.

314. The question of net or gross wages is critical, as taxes and social contribution can represent more than half of the total wage bill. It is generally recognised that statistics on net wages (after payment of income tax and social contribution) are not available, while those on gross wages (including or not social contribution of employers) are available; compensation of employees is the overall total corresponding to the actual cost of labour and should be preferred for this reason.

315. Two basic assumptions lie behind the choice of gross or net wages or total compensation of employees (depending respectively on inclusion or not of income tax and social contribution paid by the employee and by the employer). If households were to buy the service from the market, they would have to pay the compensation of the employee. On the other hand, if it were thought that households earn the money by producing the services themselves, then the net wage would obviously be more appropriate because the household do not have to pay taxes or social security contributions for themselves.

316. The recommendation is to use gross wages or compensation of employees for valuation purposes for the following main reasons:

- The solution is consistent with the method used for non-market services of general government and non-profit institutions serving households
- If households sold their services on the market, or if the services had to be purchased on the market, the price would cover all costs of production, including social security costs
Wage statistics are based on gross wages. Comparable figures for net wages are not generally available.

317. Table 4.3 summarises the alternative methods for valuation of household production. The number of possible estimates may be great and with a large scale of variations. Goldschmidt-Clermont (1982) is a good starting point for an extensive review prior to the recent reflections, and Sousa-Poza et al. (1999) is helpful for the latest literature in this area.

### Table 4.3 Methods of Valuation of Household Production

<table>
<thead>
<tr>
<th>Output-based Value Added</th>
<th>Services output quantities x market prices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less cost of intermediate inputs</td>
</tr>
<tr>
<td></td>
<td>Labour input hours x market wage rates</td>
</tr>
<tr>
<td></td>
<td>Generalist wage rate or</td>
</tr>
<tr>
<td></td>
<td>Net wage</td>
</tr>
<tr>
<td></td>
<td>Gross wage</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
</tr>
<tr>
<td>Input-based Value Added</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist wage rate</td>
</tr>
<tr>
<td></td>
<td>Net wage</td>
</tr>
<tr>
<td></td>
<td>Gross wage</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
</tr>
<tr>
<td></td>
<td>Opportunity cost wage rate</td>
</tr>
<tr>
<td></td>
<td>Net wage</td>
</tr>
<tr>
<td></td>
<td>Gross wage</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
</tr>
<tr>
<td></td>
<td>Plag cost of capital inputs</td>
</tr>
</tbody>
</table>

318. The recommendations made by Varjonen et al. (1999) in the perspective of the implementation of systematic and complete satellite accounts for household production are clearly for the replacement cost method using the generalist workers' gross wage. Moreover, Sousa-Poza et al. (1999) distinguish between paid working hours and actual hours worked, which lead to other variations in the estimates (see Table 3.4). And it is necessary to recall that whatever the wage rate finally chosen, it will re-introduce within the household production the gender gap which exists in the market economy.

319. When replaced in the context of developing countries, these debates usually disappear in view of the weaknesses of available statistics but also because of market limitations. In rural areas, it is clear that the only generalist or specialised worker’s wage is the agricultural worker’s wage, which is usually very low. And in urban areas, the domestic worker is very often low paid, if even paid; many receive their payment in kind (food and shelter).

### 4.7 Contribution of the Household Economy to Gross Economic Product

320. Depending on the methods used for the valuation, it is generally agreed that the household economy, excluding the production of goods (that is, activities which are, or should be, already in the GDP) would represent between 35 to 55 percent of the GDP in various countries. Higher estimates do exist as shown in Table 3.4 below.
For 12 OECD countries where time-use surveys have been carried out, the average number of hours and minutes of unpaid labour per week for women (31.9 hours) is twice that for men (16.1 hours). These time-budgets resulted in the estimates shown in Table 3.4 of the value of the unpaid labour component of GHP in comparison with the combined labour and physical capital components of GDP.

Table 4.4: Value of labour component of GHP in comparison with GDP in various countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Value as a percent of GDP obtained by Input-based methods</th>
<th>Market replacement cost method</th>
<th>Output-based method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Opportunity cost method</td>
<td>Generalist method</td>
<td>Specialist method</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average wage net</td>
<td>Offered wage</td>
<td>Reservation wage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average wage gross</td>
<td>Reservation wage</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>1992</td>
<td>52</td>
<td>69</td>
<td>54</td>
</tr>
<tr>
<td>Austria</td>
<td>1992</td>
<td>138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>1992</td>
<td>31</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>1990</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>1975</td>
<td>44</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Germany</td>
<td>1991</td>
<td>46</td>
<td>100</td>
<td>68</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1990</td>
<td>108</td>
<td></td>
<td>82</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1990</td>
<td>68</td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>Norway</td>
<td>1992</td>
<td>39</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Switzerland (1)</td>
<td>1997</td>
<td>58.3</td>
<td>63.3</td>
<td>54.0</td>
</tr>
<tr>
<td>Switzerland (2)</td>
<td>1997</td>
<td>38.2</td>
<td>37.6</td>
<td>34.3</td>
</tr>
<tr>
<td>United Kingdom (3)</td>
<td>1999</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>United Kingdom (4)</td>
<td>1999</td>
<td></td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

Notes: (1) Using gross actual salaries (2) Using net paid salaries (3) Compensation of employees (4) Wages and salaries. Bracketed figures for United Kingdom are obtained by differentiating wages by gender.

Source: Based on Sousa-Poza et al. (1999), and Fouquet and Chadeau (1981) for France, and Short (2001) for the United Kingdom.

4.8 Building Satellite Accounts of Household Production: A Case for Benin, Madagascar, South Africa and Ghana.

In Africa, only three countries have carried out national surveys on time-use: Benin, South Africa and Madagascar. The GLSS in Ghana can also provide results that may be sufficient for the elaboration of a NSAHP. However the Nigerian survey was a pilot survey on only a small sample.

1. In each of these four countries, the detailed list of household production activities, and more widely, the detailed list of non-market activities, with the number of hours spent per day, by sex, and where possible by urban/rural areas, extrapolated to the year is available (the least detailed is for Ghana, and the most detailed is for South Africa).

2. Detailed statistics of average wage rates by detailed occupation in the formal and in the informal sector by sex must be prepared based on household surveys, enterprise surveys or administrative records.
3. A detailed list of agricultural, food and manufactured products as well as services must be prepared on the basis of the most recent budget-consumption or income-expenditures survey, with the annual value consumed or spent per person for each of these products.

4. Based on the levels of details for each of these three lists, some groupings of the activities must be operated so that the list of activities become more consistent with the list of occupations for which a wage rate is available and with the list of products (where groupings must also be operated).

5. Which wage rate will be applied and imputed to which activity must be decided to obtain the amount of compensation for labour per person. By applying the result to the number of corresponding persons having performed the activity in the time-use survey, total compensation for labour is calculated by sex.

6. Total consumption (or expenditure) per year and per person for each product is then calculated for the entire population and distributed between final consumption, intermediate consumption and assets in each activity. This is a step that requires many assumptions. It is quite a complex procedure: for instance cereals purchased or self-consumed by a household will constitute (for 100 per cent) the intermediate consumption of the activity of crushing. Once evaluated, the crushed cereals will in turn constitute the intermediate consumption of the activity of cooking or preparing meals. In fact, the entire process of national accounting must be redone for household production.

7. For the share of these products which has been imputed to assets, other assumptions must be made for the number of years of their depreciation: the amount imputed to consumption of fixed capital is equal to the amount of this share divided by the number of years for depreciation.

8. Taxes on housing, on cars and all taxes on production must also be distributed between household production activities and other activities such as leisure: in principle a part of these taxes has already been imputed to the activity of individual entrepreneurs in the households.

9. The sequence of production and generation of income accounts for household production can then be reconstituted and estimates made of GHP.
Overview and Aims

323. A major challenge facing the whole human development process is how to make women's (and men's) unpaid work count in a world dominated by financial calculus. Because of this and other challenges, women's unpaid work has been identified as a key area for policy intervention by the United Nations through its Beijing Platform for Action (1995). Some countries such as Canada and international agencies have initiated time studies to identify and measure the linkages between economic and social policies (e.g. subsidies and transfers) and household production.

324. In Africa, the United Nations Economic Commission for Africa (ECA) and other agencies have initiated work to promote policy options, responses and advocacy towards recognizing household production and Gross Household Product (GHP). This initiative is timely because ongoing work on gender has largely concentrated on advocacy of gender mainstreaming in development, while focus on the analysis of policy implications of time-use statistics has received little attention. Thus, there is certainly a wide scope for further development of interpretation of time-use data for policy making.

325. The development of policy analysis needs to include guidelines on policy options, responses and advocacy strategies and how to sharpen skills of national statisticians, national accountants and policy analysts in communicating policy recommendations to decision-makers and other stakeholders.

326. In the emerging studies on valuation of non-market work and household production, the task ahead is how to ensure appreciation of time-use statistics — the implications to policy makers, and the kind of policy recommendations to be made. Although this initiative is relatively new, collection of time-use data remains the only valid method of capturing previously invisible women's activities: effective policy-making depends on accurate data and statistical indicators.

327. Over the last thirty years developing countries, especially in Sub-Saharan Africa, faced major macroeconomic shocks associated with among others, fluctuations in the world price of raw materials and agricultural exports or economic reforms such as structural adjustment programmes (SAP) and the liberalization of commercial trade. These shocks have had significant repercussions on the economies of these countries in particular, in terms of income distribution and poverty levels. Moreover, though, it has been generally observed that reforms have led to overall growth, there has been evidence that growth is not distributed evenly to different sections of society.

328. There has also been a growing recognition of the importance of macroeconomic policy in influencing women's welfare and their prospects for economic empowerment. Reforms could worsen or improve the living standards of women and contribute to narrowing or widening gender gaps in incomes, health, education, nutrition etc.
329. In his paper entitled: "Towards a More Comprehensive Knowledge of all Forms of Work", Duncan Ironmonger (1998) identified three areas that should receive a thorough understanding for the development and monitoring of the progress of social and economic policies:

- how social and economic systems operate
- the past, current and future evolution of systems under present and proposed policies
- the impacts of policies on households and people (women, men and children).

330. There has also been increasing concern on how gender inequality can constrain the outcomes of macroeconomic policy. For example, recent work (Haddad et al, 1995, Çağatay, Elson and Grown (eds), 1995; World Bank, 1995; Palmer, 1995) shows that economic reforms with decreased incentives can reduce women’s output or restricted access to education, can hinder women’s ability to develop their human capital resources. The chapter in the Beijing Platform for Action (PFA) entitled Women and Poverty reports that “the number of women living in poverty has increased disproportionately to the number of men, particularly in the developing countries. The feminization of poverty has also recently become a significant problem in the countries with economies in transition.

331. Although these gender-related development issues have prompted serious debate, the absence of appropriate gender-aware macroeconomic analytical tools has penalised quantitative analyses. More generally, it must be recognised that operational tools are lacking, especially in Africa, to relate macroeconomic policy and microeconomic behaviour, and to evaluate the implications of gender and macroeconomic variables of different policy scenarios. A related constraint is the inadequate data and statistical indicators for effective policy-making, monitoring and evaluation (ECA, 2004).

332. Yet there is increasing need for African governments to assess impacts of their economic policies on welfare and the macroeconomy to ensure transparency and accountability. Gender equality advocates also underline that when states reorganize to serve the interests of market forces, these interests do not necessarily coincide with those of the dispossessed. Further, assessing the reality for poor women across developing countries reveals that the process of economic reform bears hardly any relation to the process of social transformation.

333. As women are the largest providers of the large essential volume of unpaid labour in the household, the on-going research by ECA and other institutions on engendering macroeconomics points to the need to increase our understanding of the ways in which macroeconomic policies impact on or interact with the household economy.

334. Household production consists of three relatively distinct components:

(i) unpaid services for own final use (domestic and care-giving services);

(ii) Informal sector work, where household members produce for the market, but the expenses and earnings from their ‘business’ are not separate from the rest of the household’s accounts (subsistence production and other kinds of informal enterprises);

(iii) unpaid volunteer/informal domestic and care-giving services to other households; and

(iv) production of housing services for own final consumption (imputed rents of owner-occupied housing).

- Subsistence work, especially in agriculture, where the household produces goods primarily for its own consumption;
- The unpaid reproductive or ‘care’ work involved in rearing and caring for household members, where members provide services for the household’s own members; and
335. There are important differences between these three components. But the boundaries between them may sometimes be fuzzy. For example, it is sometimes difficult to know how to classify the activities of a young woman from rural areas who is living in an urban household, doing the housework, and receiving board and lodging but no money in return. Is the work this young woman does unpaid reproductive work? Or is it domestic work, and thus part of the informal sector, with payment in kind rather than in money? Collection of fuel and water also gives problems with classification. According to the 1993 System of National Accounts (SNA), this activity should be considered as part of subsistence production, and included in calculations of the gross domestic product (GDP). However, this is done in very few countries to date. Instead, national accountants, policy makers and the general public usually see this work as part of unpaid reproductive work.

336. As discussed in module 5, policy makers often overlook household production. One of the reasons for this is that, at least in the case of the first two components, there is no money involved. As a result, household production can seem to have no or very little value if no effort is made to estimate the value of replacing household production with goods and services that are paid for.

337. Another reason that household production is often overlooked is that those who do this work are usually among the more marginalised members of the society. Subsistence and informal sector work is generally done by poorer people. Women generally do unpaid reproductive work. The voices of these groups are not 'heard' as loudly as those of other groups because of their marginalisation. In addition, household production is often not 'seen' by policy makers because it happens in the private space of the home, rather than in the public space in which policy is made. Household production, and those who do it, thus remains largely unseen and unheard in the processes of formulating, implementing and evaluating economic and social policies.

338. Overlooking household production ignores the burden that the work places on individual household members - especially women and children. It can also subvert key objectives of government. In particular, the burden of household production can undermine initiatives to reduce poverty because the time and energy spent on this work prevents people from taking up more profitable economic opportunities or even from attending school. Ignoring household production can thus have negative effects for the individual, the household and the nation.

339. Module 7 takes Module 5 further by looking at how household production is, or should be, reflected in government budgets. It shows, on the one hand, how to see whether and how budgets cater for household production. On the other hand, it discusses how policy and budget makers could better hear the voices of the household producers by making their activities more visible. Module 7 builds on work in the field of gender-responsive budgets (GRB). This makes sense because it is the unequal burden of household production - and particularly of unpaid reproductive work - that underlies much of the gender inequality in Africa and other parts of the world.

340. Many GRB have recognised this link. While GRB are sometimes perceived as advocating for 'more for women', this approach is not the most effective. GRB initiatives are not (or should not be) about promoting 'special interests'. Instead, they are about making visible the invisible, and including the excluded. Firstly, they make visible the differences in needs and interests between different groups of people living in the country. Secondly, they are about an 'improved' economic paradigm which recognises that the cost of reproducing and maintaining the people who drive the society and economy is heavily dependant on the unpaid economy. As a consequence, policies and budgets that do not ensure efficient production within the unpaid economy will harm the society.
and economy. Such policies and budgets will also place an unfair burden on the people (mainly female) who do the recognised work.

341. The aims of Module 5 are to understand the implications of integrating household production and GHP into national policies, demonstrate the application of statistics on household production and GHP in national accounts systems, identify policy options, responses and advocacy channels to promote equal opportunities by integrating household production and GHP in the development process and improve skills of statisticians, national accountants and policy analysts in communicating policy recommendations to decision-makers.

342. The aims of Module 6 are to provide a guide to improving national policies on welfare and poverty reduction. The Module examines the constraints on effective evaluation of policy impacts, introduces qualitative and quantitative tools for evaluating policy impacts and provides guidelines for selecting, constructing and applying a gender-aware macroeconomic model for evaluating policy impacts.

343. The aims of Module 7 are to understand how the principles of GRB can be used to analyse allocation of resources for, and implementation of, policies and programmes that affect household production and provide examples of practices from GRB initiatives in different countries that can be used for this analysis. The module is aimed primarily at government officials. However, some of the ideas and approaches could easily be adapted for use by parliamentarians and civil society activists.
Module 5
Policy Strategies on Household Production

5.1 Integration of Household Production in National Policies: Why Now?

344. The integration of household production and GHP in national policies can be done through mainstreaming in:
- National statistics systems
- Labour market and employment policies
- Policies of social welfare and social protection
- Macroeconomic policies.

345. Until now the full contribution of both women and men to the economy through household production and of women through subsistence agriculture is generally ignored or poorly estimated in official statistics in African countries. Today most of these countries formulate their policies based on only paid work, which represents only part of the economy. Thus, discrepancies exist between women’s (and men’s) economic contributions and their control over economic resources.

346. Women’s (and men’s) unpaid work in household production has remained invisible, but when valued and presented in the form of National satellite Accounts of Household Production (NSAHP), it can reflect more realistic estimates of total economic production by taking into account all household activities. This would enhance women’s relative economic status in a positive direction and would contribute to long-term endogenous growth strategies by opening up capacity/capabilities in areas such as agriculture, health and education.

347. Emerging research shows that the household economy underpins the market economy with a significant contribution to income generation, long-term growth and poverty reduction by supplying human and social capital labour to the private sector and the public service sector economy. Women’s (and men’s) domestic chores and child-care prepare children to become future workers as part of building human capital. However, women still have less access to money income and assets, less wealth and less control over the economic processes to which they contribute.

348. This household economy is not included in the national accounts. However, the SNA 1993 recommended compilation of satellite accounts to provide a framework linked to the central accounts, and it enables focused attention on an aspect of economic or social life (e.g. unpaid work) in the context of the national accounts. Since 1993, there is increasing understanding of the contribution of the household economy to the total economy. These studies in developed countries as well as pilot studies in Africa are now helping to show the need for policy intervention to increase the visibility of household production and to boost the contribution of women and men to both market and non-market economies.

349. But a major challenge still remains and that is the need for more data and statistics that will ensure that the concerns of both paid and unpaid work are considered in policy formulation for all groups of the society. Hence, the need to focus on policy implications of measurement, valuation and integration of household production into national planning instruments through time-use studies, satellite household accounts and national budgets.
5.1.1 Linkage of Household Production to Macroeconomic Policy

350. The exclusion of unpaid women's work assumes that these have little or no effect on most micro- and macro-economic activity. But the consequences are immense. For example, in Nepal, the World Bank has estimated that 8 million tons of dung are burned as fuel each year. The use of dung as fuel (instead of a fertilizer) is a major instance of import substitution, and represents a national saving in terms of debt that would be incurred through the importation of commercial fuels if resourceful women had not processed the alternative.

351. During periods of economic recession and crisis, declining real incomes and rising unemployment and underemployment, the increases in the unpaid work performed by women intensifies gender inequalities, restricting women's access to economic opportunities and the benefits of development relative to men.

352. Research undertaken in several economies, including Australia and Canada, has attempted to assess the implications of measures in national budgets for household time budgets. Cutbacks in social services, for example, may have the effect of increasing time spent on care work; reductions in subsidies for food stuffs may result in women, who are usually responsible for provision of food, spending more time looking for cheaper substitutes.

353. Research in Kenya, Bangladesh, Ecuador, Philippines, Canada and Australia have shown that macroeconomic policies tend to assume that women's labour supply is elastic and that increases in household production (performed largely by women) will counter the effects of cuts in employment, income or services in the market and public sectors. Under structural adjustment policies in developing countries, cuts in health, family planning and other social services increases the burden of unpaid home care and services on women. In some OECD countries, the attempt to make hospitals more efficient through the earlier discharge of patients, with convalescence taking place at home, transfers the burden of care to unpaid female household members. Thus, what may be regarded as an increase in productivity or efficiency for the market economy is actually a shift of costs from the paid work sector to the unpaid work sector.

354. Unpaid labour is a resource that can be depleted, with potentially negative impacts on the macro- economy. These include the cost to those who provide the unpaid work, in terms of loss of education, health and well-being. Second, unpaid work may compete with paid work: meeting greater demands for unpaid work may jeopardize ability to supply more paid work. This may be one explanation for poor supply response to some adjustment programs. Economist Diane Elson argues that a hidden factor in many episodes of stabilization and structural adjustment is the intensification and extension of unpaid labour. Unpaid labour may assist in absorbing the shocks of adjustment: for example, unpaid labour may be substituted for paid labour in the production of food and clothing, which are produced in the home instead of purchased from the market. Voluntary labour may be mobilized in community self-help schemes when public expenditures are cut.
Example 1:

In countries which have adopted international labour migration as a measure to promote employment, the impact on women differs according to the culture of the sending and receiving countries. In the conservative male-dominated cultures of South Asia, international migration has been almost exclusively male, much of it from rural areas. This has had a marked impact on female labour force participation in agriculture, both directly through the need to replace out-migrant male farmers, and indirectly through the need to replace out-migrant male farmers, and indirectly through the need to replace other farmers drawn into off-farm employment by increasing non-agricultural employment opportunities in rural areas for male non-migrants. In Pakistan, for example, labour force participation rates for females engaged in agricultural work on own farm increased from 39 percent in 1972 to 54 percent in 1980.

In countries of predominantly male out-migration, cultural pressures largely restrict the increased female labour force to unpaid work on the family farm, typically under the control of other men. Unlike paid work, which usually requires a minimum level of education, this largely unrewarded economic activity does little to raise the status of women and provides almost no incentive for families to educate daughters. Where women themselves comprise a substantial proportion of international out migrants, most migrate to work as domestic servants in countries where the status of women is low, and in situations where economic and personal exploitation is rife. Although the incomes they earn may increase their status within the family, the women often experience great personal hardship and the social costs for their families and their communities may be higher.

Example 2:

In the 1960s, the export-oriented policies of Asian countries like Hong Kong, Taiwan and South Korea have created many new employment opportunities for young women. A number of heavily-indebted Asian nations were pressured to adopt export-oriented strategies by international development lending agencies as part of the stabilization and structural adjustment measures, while others did so voluntarily in the face of mounting external imbalances.

Although, overall, export-led development have been generally associated with expanding employment opportunities for women, these are not always in the formal wage sector. In a number of countries, the expansion of female employment has occurred in manufacturing in the informal rather than the formal sector. In Pakistan, women’s representation among regular industrial employees is very low and measured urban female labour force participation rate has shown only a negligible increase. However, micro-studies of urban areas point to an increasing influx of women workers in the urban informal sector, where they are employed as temporary, casual or contract labour. Many are also in home-based piece rate employment, particularly in countries such as Pakistan and Bangladesh where cultural systems restrict women’s mobility.


5.2 Perspectives in Analysing Policy Implications of Household Production

In analyzing time use data, Luza (2000) identified three perspectives, which appear to be particularly useful relating to Non-market Work (NMW) or household production:

- promoting gender equality;
- employment, income; social benefits and well-being and
- linkages to macro-economic policies.

These are not mutually exclusive policy domains and each has a bearing on the others.
5.2.1 Promoting Gender Equality

356. In the global movement for women's equality, there is a general feeling that women have been left out in the societal allocation of benefits from development and this is believed to arise from the unfounded "consensus" that women's contribution to development has been marginal. The flaws of such an argument has been shown by the findings of time use surveys as will be discussed further.

357. A closer look at household economies, especially in developing countries, has revealed that this is a myth. Women do contribute to the economy just like men but their contribution have either been ignored, uncounted or underestimated. Time use data have shown that women's unpaid work has been consistently higher than that of men. Reproductive activities have been classified as non-economic, non-productive and therefore it is "unvalued or unmonetised".

358. Gender equity is the process of being fair to women and men. To ensure fairness, measures must often be available to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field. Equity leads to equality.

359. Gender equality means that women and men enjoy the same status. Gender equality means that women and men have equal conditions for realizing their full human rights and potential to contribute to national, political, economic, social and cultural development and to benefit from the results. It acknowledges that different treatment of women and men may sometimes be required to achieve the sameness of results, because of different life conditions or compensate for past discrimination.

360. Gender equality is therefore the equal valuing by society of both the similarities and differences between women and men and the varying roles they play. Time use survey data can help reveal the presence or absence of gender discrimination, which may not be obvious without such data. Such data can be generated from:

- Measuring women's and men's contributions to total work in the economy; and
- Measuring the time spent on SNA and on non-SNA activities by men and women.

5.2.2 Measuring women's contribution to total work in the economy

361. We need to measure and understand both women's contribution to the total marketed work (conventional definition of work) and women's contribution to total work. Emerging time-use surveys will help in:

- improving labour market/workforce data under the conventional definition as well as under wider definitions of work and workers and
- shedding light on diversification of economic activities of men and women as well as their paid and unpaid work time.

362. Exclusion of unpaid work in the national accounts perpetuates the incomplete and inaccurate picture of national income, especially in developing countries. For example, the gross domestic product (GDP) does not include non-monetary production, it records shifts in productive activity from the household and non-market sectors to the market economy as economic growth, even though total production may remain unchanged.

363. Paid child-care, hired domestic help and restaurant food preparation all add to the GDP, while the economic values of parenting, unpaid housework, home food preparation and all forms of

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volunteer work remain invisible in economic accounts. Productivity gains may result in greater output or increased leisure, but the GDP only measures the first, thereby masking longer working hours. Both omissions have implications for the changing role of women in the economy, who have entered the paid workforce without a corresponding decline in their hours of unpaid work.

364. A more comprehensive description of the economy would incorporate inputs from the formal sector (production activity, market transactions); the informal sector (volunteer activity, the underground economy); the household sector (household production, caring, leisure) and reproductive activity (conception and birth education and value imprinting).

Example 1: South Africa
South Africa, like most countries, does not yet include household production in the national accounts. Its time-use survey of 2000 was the first of its kind at a national level. According to the TUS (Table 5.1), women spend more time in non-SNA production than men and men spend more time in SNA production than women – an almost universal feature of how time is allocated throughout the world.

On average, the total work time of South African women with a paid job is 55 hours per week (including almost 25 hours of work in household production). Her male counterpart has a total work time of only 48 hours per week (including 10 hours of household production).

Table 5.1: Time spent on productive and non-productive activities, by employment status and sex (Minutes per person per day)

<table>
<thead>
<tr>
<th>Activity</th>
<th>In Paid Work</th>
<th>Looking for Paid Work</th>
<th>Not in Labour Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>SNA production</td>
<td>328</td>
<td>260</td>
<td>121</td>
</tr>
<tr>
<td>Non-SNA production</td>
<td>82</td>
<td>210</td>
<td>119</td>
</tr>
<tr>
<td>Total work</td>
<td>410</td>
<td>470</td>
<td>240</td>
</tr>
<tr>
<td>Non-productive</td>
<td>1030</td>
<td>970</td>
<td>1200</td>
</tr>
<tr>
<td>Total</td>
<td>1440</td>
<td>1440</td>
<td>1440</td>
</tr>
</tbody>
</table>

Source: Statistics South Africa

Example 2: Bangladesh
Women spend more time in unpaid work than men. Non-market production, which includes both subsistence production and housework, is a major sector in the Bangladesh economy. In fact it contributes 23% to the revised GDP being second only to the agriculture sector, which contributes 33%.

General
- Non-market work increases conventional GDP estimates by 29%.
- Under the 1993 UN SNA production boundary definitions, 95% of non-market production of Bangladesh is excluded.
- Opportunity cost is 64% of formal wage rate; informal wage rate is 80% of formal wage rate. This indicates self-exploitation of the rural labour force and perceived non-value of NMW.

Gender-related Production
- Conventional GDP estimates capture 98% of men’s production but only 47% of women’s production.
- Women’s contribution to national income using conventional estimates is 25% and men’s contribution is 75%.
- Including NMW in national income estimates, increases women’s contribution from 25% - 41%.
- Women’s contribution to market work is 25% and to non-market work is 97%. Under the proposed recommendations of the revised SNA, 38% of men’s NMW and only 4% of women’s NMW will be accounted for in GDP estimates.

Time allocation
• Of the total time spent on work in rural areas, women contribute 53%.
• Of the total time spent on market work, women contribute 25%.
• Of the total time spent on nonmarket work, women contribute 89%.
• Men have 12% more leisure time than women.

Wage rates

• Female: male wage ratio is 0.50 in the informal sector, 0.60 in the non-agriculture sector, and 0.66 in the agriculture sector, indicating under-valuation of women's skills in all sectors of the economy.
• There is only marginal difference between wage rates of women and that of children, indicating that women's skills are valued at par with that of children.

Source: Sharmin Hamid

365. In both examples from South Africa and Bangladesh, time-use data shed light on the relative contribution of men and women in the national economy because it takes into account all activities within the household and attaches appropriate value to women's reproductive roles. This lays the ground for policy makers to review these contributions against the benefits from development that actually accrue to women in their respective societies.

366. Work performed in households such as domestic chores and childcare prepare children for school and to become future workers and citizens. This is in fact part of the process of building human capital or human resources development. In this sense, the unpaid work of caring for human resources underpins the functioning of the market economy and the household economy itself.

367. If women's reproductive tasks are considered important, for example caring and tutoring their children, what kind of "social compensation" do women get for performing these tasks? Do women get social services and resources to facilitate the performance of these roles? Are they given assistance to reduce time for their routine tasks so that they have more time to perform these roles? Are women given the time to develop and educate themselves? Do husbands share in the domestic chores? Does society encourage or give incentives for men to share in the housework? Or does the culture sanction men's sharing of household chores?

368. The caring functions of women in the household help ensure the health and education of all members of society. These are necessary inputs into the production of output, but they are also valuable in their own right. In fact, they are the most important output of our economies. Prioritizing the production of human capabilities implies prioritizing the production of goods and services that contribute to health, education and welfare. In almost all African societies, care labour is in the hands of the women. Yet they get much less social benefits than men.

369. The policy responses of these may lie in the area of educating men and women in society and measures to reduce negative values to men's sharing in domestic activities and allowing their spouses to build their human capital.

370. The policy impact of time-use data in this case is the provision of better information to policy makers which is hoped to lead to better understanding and appreciation of women's contribution to the economy. Accordingly, there will be adequate grounds for policy makers to initiate and advocate policies that will give women a better share of the gains from development. And this is where the equity issue can be addressed.
5.2.3 Measuring the time spent on SNA and non-SNA activities by men and women

371. This intervention aims to analyze:
- the respective shares of women and men in both these activities and
- the time burden that women carry while entering the labour market.

372. Comparisons of time spent on SNA and non-SNA productive activities can shed light on inequities in work sharing by men and women in our society. This should be analyzed in terms of time spent as well as:
- drudgery of work
- productivity and remuneration of work
- decision making powers and hierarchy of work
- prospects of upward mobility in work and
- prospects of accessing development opportunities in life.

373. Current labour statistics provide a distorted image of how countries utilize labour resources to achieve their standard of living because they record only those labour inputs involved in the production of goods and services covered by the 1993 SNA. However, time-use studies in both industrialized and developing countries have shown that labour inputs into non-SNA (household production) activities are of a similar, if not greater, order of magnitude. These labour work inputs are unpaid.

374. The amount of labour spent in market and non-market activities can only be obtained by means of time-use data. Measurements in units of time are valuable in the economic assessment of non-SNA activities. Time use surveys provide data on the participation of women and men in the activities (such as work, child care, domestic chore, leisure, travel, personal care, and sleep) defined for the particular survey.

375. Time-use data can shed light on the following questions: Do women get less rest than men? Do women have less time than men for education and self-improvement? Do women have less time for relaxation and socio-cultural activities?

5.3 Unpaid Work in Labour Market and Employment Policies

376. Women’s "employment" is generally low because employment is construed to mean work in the labour market. The reproductive functions of women hold them back from joining the labour market as it is often culturally expected that women would perform this role more than men. Thus, household production tends to constrain women's participation in the formal, paid labour market.

377. However, poverty and financial crises often compel women to engage in remunerated activities and earn income outside the formal sector, now popularly known as the informal economy. Thus women may thus perform both subsistence and livelihood activities and engage in micro-enterprises to generate money income for the household. But there are two issues:
- women’s informal activities do not reduce their unpaid work; in fact, they continue to perform unpaid household production work along with their informal economic activities and
- household production does not enter the national accounts; there are no estimates of GHP to cover this productive activity. This implies that women’s employment and productive
activity is in fact high but this necessitates broadening the notion of "employment"; the more appropriate concept is "work".

378. Time-use survey data can help detect the extent of women's involvement in the informal sector which can either be paid or unpaid. Where these activities are done as part of a family enterprise, then the work could be done as an unpaid family worker. In cases where the activities are done as an own account worker, the person may earn money from her informal activities.

379. Since the informal sector is also invisible in national accounts, there is little support and institutional assistance to the sector to facilitate its growth from subsistence undertakings to viable and sustainable economic undertakings. Labour institutions are often designed to cater for wage employees or the formal sector. Hence, the informal sector, which consist of mostly women and children, falls outside the mainstream economy and participants are not able to enjoy social protection. In developing economies institutionalized safety nets are scarce and in times of economic crisis, this renders the informal sector very vulnerable.

380. The informal sector is therefore invisible, vulnerable, and unprotected. During the financial crisis in developing countries including Africa, there are evidences that the informal sector has become the "catch basin" for those who fall out of the mainstream or formal economy. Retrenched workers due to downsizing of enterprises seek alternative employment and income from the informal sector.

Example: Bangladesh

In Bangladesh, the 1984 population census reported that 90 per cent of the active age rural female labour force were housewives (a category which was excluded from the survey's definition of economic activity); although a questionnaire conducted the previous year found that the vast majority of rural "housewives" were involved in food processing and other agricultural duties. The 1992 Bangladesh labour force survey continued to exclude housework from its revised definition, although it did include unpaid agricultural work. What is clear is that when women are not counted, there is no recognition at all.

The extent of a woman's participation in SNA and non-SNA productive activities can show her economic involvement in both paid and unpaid work. If her involvement is shown to be high, one wonders what she gets out of it in terms of benefits in cash or in kind. Parallel analysis is therefore needed to determine the wages, conditions of work and social protection benefits that women derive from their paid and unpaid work. This would provide the full picture as to what women contribute and what they gain from their economic contribution to society.

Source: Sharmin Hamid

5.4 Policy Strategies for Household Production

5.4.1 Reform of Statistical Systems

381. Official recognition of unpaid work and making visible women's contribution to the national economy implies the institutionalization of reforms in the national statistical system to ensure the enumeration and valuation of unpaid work. "As a policy, governments should introduce time use studies as part of their normal official data collection efforts such as the census operations or price statistics. Reworking the official statistical systems is needed to arrive at an alternate measure of
domestic product, which can be logically compared across nations, regardless of the extent of market orientation" (ECA 2004).

382. Among such reforms are:
- the standardization of concepts and definitions
- the adoption of the revised UN trial activity classification
- the adoption of national time accounts and national satellite accounts of household production
- continuous or periodic conduct of time-use surveys, and
- adoption of a standard methodology for valuation of household production.

Labour force surveys and time-use surveys would need to be harmonized to ensure data complementarity and meaningfulness of interpretation.

383. Information collected through time-use surveys provide a "better" picture of the economy than for example, labour force surveys, which omit significant portions of the population. Time-use data makes apparent men and women's participation in non-SNA production and, with time-use data for those below 15 years of age, the work of children and the existence of child labour can be readily established. These data can supplement standard gross national product estimates to give estimates of gross household product.

384. Time-use data provide empirical evidence of women's actual contribution to the total economy. When appropriately valued (in money terms), the magnitude and the economic significance of unpaid work of both men and women can be established.

385. Time-use data are useful for revealing linkages between a government's budget and household time budgets. A gendered analysis of the government budget can reveal the effect of expenditure and revenue policies on women and men, girls and boys. The process tends to reveal the gender bias in national budgets. For example, cutbacks in social services may increase the need for unpaid work, the bulk of which is carried out by women.

386. As a prerequisite to the reform of the statistical system is the need to sensitize policy makers and economists on the importance of time use surveys and to build the capacity of statisticians in the conduct of time use surveys as well as in the use of time-use data in policy making.

387. Capacity building among statisticians, economists, enumerators, planners on the concepts, methods and uses of time-use data, data on unpaid and underpaid work is strongly recommended. On-going work by ECA in assisting African countries establish NSAHP is an example of capacity building. Equally important is the understanding about the critical linkages and interdependencies between market and household production. This should not only be at the national level but also international.

388. Sensitizing policy makers and decision takers regarding gender differences in costs, burdens and benefits of work, disseminating data on time use can enable them to come up with practical policy options with budget support, legislation. Interdisciplinary workshops are one way to make a beginning.

5.4.2 Enhance Women's Employment and Income

389. Time-use data have shown the disproportionate involvement of women in unpaid work (especially in care labour and volunteer work), and in underpaid work in the informal sector as
well as in low skills, lowly paid wage jobs. Reproductive work deprives women of opportunities to build their human capital but this is often not factored into policy making. For instance, childbearing and - rearing, and, caring for the sick and the elderly constraints or obstructs women's employment or participation in paid work. These workers become ineligible for workplace-based training.

390. Reversing this trend over the long term necessitates policy measures that would upgrade the labour market options of women. This means the need for skills upgrading of women and facilitating access to information, markets, credit sources, technology and other productive inputs needed in self-employment and own account work.

391. Long-term measures should be taken to move women out of unpaid work as far as possible without jeopardizing household welfare. Unpaid household work will continue because the household economy is very competitive with the market economy. The household is better than the market in many services, particularly with regard to location and timing of services and providing better quality outputs than the market. The objective of policy should be to allow society to maximize total welfare provided by the total production system, both household and market.

392. Programs on capacity building must be accessible through both formal and non-formal delivery mechanisms and should aim at facilitating women's access to information and communication technology, participation in internet education and if possible, involvement in home-based e-based business.

393. Community-based mechanisms to facilitate women's access to information on paid job opportunities can be established. Local government units can be encouraged to set up labour market information services with accompanying outreach to the women. In addition, local governments can systematically address the barriers to women's entry into the labour market and formulate remedies for it. Home-based money income generating undertakings through linkages with market outlets and market information as well as to technology and credit can be facilitated through the establishment of community- based services.

394. There is a need for policies to recognize the importance of the informal and unpaid sector. Policies are needed to provide for training of women in the informal sector and the self-employed in entrepreneurial skills, management skills and training in appropriate technologies in industries considered to be the growth sectors in the respective economies. This could include the expansion of capacity building programs to provide on-site services in skills development; link skills training to existing job opportunities; promote growth-oriented micro-enterprises.

395. Partnerships between the private sector and community-based groups of women engaged in micro and small enterprises can be brokered or mediated by NGOs to help the women gain greater access to information and technology. This should be used as a tool for fostering "big sister, little sister" relationships to help the women incubate their micro and small and medium scale enterprises into sustainable undertakings. In this regard, government can consider giving tax incentives for participating private firms in such a scheme.

396. A related policy measure involves the establishment of institutional windows for the informal sector to ensure women's access to information and productive inputs. This implies the need to reform labour administration machineries at national level.
5.4.3 Enhance Women’s Well-being and Quality of Life

397. Time-use data, such as the length of paid and unpaid work and the intensity of work, convey important information on the quality of life that existing measurements of living standards overlook.

398. People can be poor in terms of time as well as money and definitions of poverty need to take this into account. For example, time-use surveys in the United States, Australia and Bangladesh have revealed the unhealthy pattern of paid work and unpaid domestic work, particularly for women. In other words, women have overlapping activities and a consequent high work intensity.

399. The combination of market work and domestic activities (cleaning, cooking and child care) have been shown to be prevalent in Bangladesh, Mexico, United States, India, Germany and Spain. What this implies is that policy reform must look into the work burden that women bear as well as the health risks that are borne by high intensity work.

400. Official recognition by governments of the value of unpaid work could enhance women’s economic security in several ways:

- Tax credits for individuals who care for a disabled person in the home and child tax credits for stay-at-home parents to look after children are one form of recognition
- The introduction of reimbursable tax credits to recognize the work of unpaid caregivers could be a mechanism that would enable them to contribute to pension plans and access other government programs, including job training and social security benefits.

401. Measures that would reduce women’s (and men’s) time burdens should be introduced. These workloads include both paid and unpaid work. Care activities could be aided by the establishment of community-based child care centres or elderly centres as well time-saving technologies such as in food processing. This could free some of a woman's unpaid time so she could spend more of her time in paid activities or be able to have rest and leisure to recharge herself.

5.4.4 Reduce the Gender Bias in Macro-economic Policies

402. As a result of government cutbacks in education, health and social services as part of economic restructuring and adjustment, unpaid work of care providers, specially of female household members, could intensity. But this may have the long-term effect of reducing the capacity of individuals to work in the market and thus to pay taxes, and increasing demand for remaining social services. In some cases, serious long-term costs may be incurred in terms of the negative impact on the quality of human resource of both care providers and children deprived of education and health care.

403. Responses could include support measures such as child care and elder care that would see household or caring responsibilities shared by the individual and the public sector. Other policies address the gendered nature of the division of labour in households, seeking ways to redistribute household work more equally between men and women.

404. Public sector policy can enhance the value to households of women's participation in the paid labour market through measures to ensure that women's paid work is valued equally to that of men's. These measures included provision of equal social security benefits (pensions, for example) and employment equity legislation. Family-friendly employment practices, provisions for parental leave, and social security benefits for part-time workers are other examples of possible measures.
Some analysts suggest that such innovations may be "too expensive." However, a cost-benefit calculation that includes the loss to the economy of women's non-participation would likely produce a different result.

405. Schemes for the extension of social protection to workers in the informal sector can be developed. This can include the collection of good practices such as the savings mobilization schemes and other rotating savings and credit schemes.

406. In many African economies, women, through their unpaid and informal activities, and the agriculture sector, provide social safety nets for families. Specific measures are needed in economic reform programmes to address the needs of vulnerable groups, including women, migrant workers, the elderly.

407. The following are some of the macroeconomic areas, which need policy intervention for recognizing exhaustive counting and integration of economic activities including household production into the system of national accounts:

- Macroeconomic stability, cycle and household labour and gender differences in unemployment rates
- Stabilization, Adjustment and Restructuring Programme
- Interaction of the market economy with the household economy
- Buffer effects – intensification of household production to adjust to economic crisis, time input effects of budget cuts, privatization of social services
- Growth, inequity, human development
- Savings and investment
- Trade Strategies
- Governance (transparency and accountability)

5.4.5 Monitor Impacts of Policies and Programs on Household Production

408. Any assessment of economic policy reform requires a more comprehensive evaluation not only of output or levels of (money) incomes, but also of resulting changes in the work burden and intensity of work. The removal of food price subsidies or, for example, is usually analyzed in terms of shifts in money income and consumption levels, which serve as indicators of the impact on living standards. However, changes in household income and consumption do not adequately convey the other important changes that may also have resulted from such policy - longer hours, reducing sleep or combining work activities. The invisibility of such increased unpaid work and overlapping tasks and their impact on health is likely to give a false impression of the effectiveness of the policy reform. Existing welfare indicators do not take into account the serious consequences of prolonged periods of work intensity and long working hours, particularly for women who maintain their families and for those who are likely to be both time-poor and cash-poor.

409. Governments and institutions need to develop mechanisms that will monitor and evaluate the impact of policies and programs on unpaid work. African Ministers of Finance, Planning and Economic Development in 2002 endorsed ECA's initiative to develop a common framework for African countries to conduct time-use studies to generate data for evaluating impacts of macroeconomic policies on welfare and poverty reduction.
Module 6

Impacts of National Policies on Poverty Reduction and Welfare

6.1 What are the Constraints to Effective Evaluation of Policy Impacts?

410. Recent attempts to increase the visibility of women’s unpaid work in national statistics have encountered several problems, not only for policy formulation but also for monitoring and evaluating policies in this area:

- Engendering macroeconomics is a new area whose credibility is yet to be carefully established
- Inadequate financial resources to support national statistical work on unpaid work
- Lack of gender-disaggregated data (from time-use studies) to measure unpaid work
- Little understanding of the contributions of men and women to market and non-market economy
- Lack of tools to evaluate impacts of policies
- Low national capacity to design, monitor and evaluate policies on unpaid work.

411. Effective policy-making, monitoring and evaluation depend on accurate data and statistical indicators. Such data must reveal what type of activities are carried out and why, but most importantly what type of outputs they produce and what is their contribution to the national economy. It is only then that adequate policies can be designed, monitored and evaluated.

412. The presently available statistics that are used to help understand, evaluate and monitor systems, policies and people are inadequate. This is because the main economic statistics used in research and policy-making - the national accounts and the official statistics of work - are vastly incomplete and in some cases non-existent. Gross National Product (GNP) covers at best about 60 per cent of all valuable production and labour market employment statistics cover less than 50 per cent of all work performed each week. On a gender basis, the regularly published labour statistics cover perhaps 75 per cent of men’s work and 33 per cent of women’s work.

413. The diagram inside the cover of the UN 1995 Human Development Report dramatically shows the undermeasurement of women’s work. But it also shows the undermeasurement of men’s work! The main point is not the gender inequity in the measurement of work (though this is very important). The main point is that the employment statistics cover less than half of all valuable work done in the total economic system. Much of subsistence work and production and all of household work and production escape regular statistical measurement. Consequently, our understanding of the working of the total economic system is gravely limited by this deficiency of data availability.

414. To understand the economy properly, knowledge is needed of activities that take place beyond the current, arbitrary, boundaries of the 1993 UN System of National Accounts (SNA) and of market work. All forms of work and production need regular measurement. But not all forms of work are the same; the various forms need separate measurement so that the interaction between the various systems of production can be studied and understood. This was clearly recognized in the 1993 revision of the SNA. This suggested that the measurement of economic production
outside the present boundary of the SNA should be done in a set of "satellite" accounts, which are separate from, but consistent with, the main core national accounts (see also Module 3).

415. There are in reality two major parts to the economic system – the market part and the non-market part. It makes sense to measure them both separately and to study both parts of the system. For African countries with relatively large "subsistence and informal enterprise" sectors it would make sense to consider the economy as comprising three parts:

a. the formal market economy,
b. the subsistence and informal economy and
c. non-market economy (household economy).

416. On this basis, the production and employment in each sector are then measured separately. Only then will the trends and interactions between the sectors be understood properly.

417. In all countries, developed or developing, the delivery of final goods and services for consumption by people requires the operation of a productive household which adds value to the commodities provided by the market or by "subsistence" activities. In other words, the unpaid work of women and men adds value to the commodities purchased from the market or obtained from subsistence agriculture, fishing or hunting. In most countries this household work and this household value added is of the same order of magnitude as the work and value included within the production boundary of the SNA. In developing countries it is often assumed that the omitted work (and value) is relatively more important than it is in developed countries. Research has yet to show whether this is true or not. To date, most of the nation-wide time use surveys and all of the satellite accounts of household production relate to a handful of developed countries.

418. So the first priority is to move to a wider screen; to enlarge the scope of our vision to include all work and all valuable production, not just that covered at present by the production boundaries of the main national accounts. National accounts of household production are needed; national time accounts are also needed to provide a better, more comprehensive, picture of how time is used. In passing it is well to note that measures of "time use" are really measures of the use of human capital. "Work" is really use of human capital to produce valuable outputs. Thus economic statistics of work should cover all paid work and all unpaid work (See also Module 1).

6.2 Approaches for Gender-aware Macroeconomic Policy

419. Policy makers make use of three traditional instruments to pursue macroeconomic objectives: fiscal policy, monetary policy and exchange rate policy. Of the macroeconomic policies, engendering fiscal policy, and especially, national budgets is considered to be the most promising entry point for the following reasons:

- Gender concerns are more visible in fiscal policy than in monetary policy;
- As budgets have an annual cycle, it allows the processes of analysis, including monitoring and evaluation of impacts to be completed within a relatively short time;
- Gender analysis of budgets can be implemented at the country level with a relatively small amount of resources;
- National budgets are key instruments of economic policy, directly affecting individuals through taxation and public expenditure policies, and affecting their economic environment through impacts on the levels of national output, employment and prices;
- Because men and women play different economic roles and have different economic responsibilities, the same budgetary policies have different implications for them.
• Gender differences and inequalities can also restrict the ability of budgets to achieve national economic goals (e.g. expansion of outputs and jobs)

• A budget often has projections of its outcomes and macroeconomic performance for future years, in a medium term expenditure framework (MTEF). This makes MTEF also an appropriate entry point for mainstreaming gender into fiscal policy, as it is the basis for a clear and systematic national planning process and demands that issues that exist at the micro level (e.g. gender concerns) can be prioritized and met by the projected funds.

420. The rationale for engendering fiscal policies, especially national budget is also a poverty reduction strategy that allows:

• Better public expenditure management consistent with development policies
• Overall budget is pro-poor, especially, pro-women
• Resource allocation is prioritized to the needs of both men and women, and
• Impacts across all sectors benefit both men and women through budget tracking and realistic sustainability testing of a budget deficit.

421. Given that engendering of macroeconomics is a relatively new concept, national statisticians, policy analysts and national accountants need to be guided on the collection, analysis and integration of women’s (and men’s) household production in these instruments. This is crucial because an appropriate handbook does not exist, which is responsive to the unique opportunities, needs, constraints and capabilities of the people of Africa. To fill this gap, ECA is in the process of developing the following tools to engender poverty reduction strategies:

• An Africa-specific Guidebook that would help African governments in collection, analysis and integration of women’s household production in national accounts and national budgets. This New Guide for Africa will also cover guidelines and methodologies for:

  analyzing impacts of national budgets on time-use, and
  imputing value to household production and estimating GHP.

• A gender-aware model to evaluate impacts of fiscal policies on growth and poverty reduction.

422. A very critical instrument that a government can use is fiscal policy. It is important to examine econometric techniques that are suitable to analyze questions that address issues of development and poverty. Through fiscal policy governments can change the structure of an economy, generate revenue and undertake expenditure. The impacts of fiscal policy changes on women and on poverty reduction need to be examined carefully. This should lead to suggestions about how such policies should be designed, modified and implemented. Impact analysis can be carried out through many approaches but most can be classified as either qualitative or quantitative.

6.2.1 Qualitative approach

423. Studies and surveys can be undertaken to collect and analyze information about the nature of reforms, the exact way such reforms are implemented and the resultant impact on different groups of people within the area surveyed. The studies attempt to build reasonable linkage between the reform and the changes in the welfare of different groups such as women labourers and non-market workers. With such an approach a very detailed understanding of the focus of the reforms, the exact implementation procedures and the changes experienced by the group in which the researchers are interested can be obtained.

424. Several studies have analyzed impacts of policy changes in developing countries on poverty and inequality. Squire (1991) and Van der Hoeven (1995) have conducted reviews of the linkage between adjustment and poverty during the 80s. The findings of qualitative analysis between the
relationship between reforms and poverty are presented in a short review by Killick (1995), and White (1997) provides a more recent review on this. Such work describes methodically the reforms undertaken in a country and the changes in a variety of welfare indicators among different household and socio-economic groups. Studies have been also reported in a series of Background Papers on “Globalisation with Human Face” prepared for the Human Development Report 1999 (UNDP, 1999). Similarly Cornia (1999), Handa and King (1997), McCulloch, Baulch and Charell-Robson (2000) provide similar analyses for different African countries.

425. This approach however cannot identify the exact linkage between for example, trade or fiscal reforms and the welfare changes, as these cannot be tested. The result seen after a policy change could be due to other reasons or mixed outcomes and no direct linkage can be traced without any quantitative connection. Moreover in case there is no impact observed after a policy change this could be really due to some countering factors, even though policy changes have had a direct impact on the stated objective. And, conclusions through analyses using qualitative study cannot be taken as general and should be limited only to the specific group interviewed. Such studies in spite of being very valuable for in-depth understanding have strong limitations. The inability of descriptive studies to provide a robust causality between impact and result has made research in quantitative approaches more demanding, hence the initiative of ECA to embark on gender-aware modelling to policy evaluation in African countries.

6.2.2 Quantitative approach

426. Policy makers are interested in studying the impact of particular policy measures, like change in income tax, on welfare of people below poverty lines and other socio-economic categories of households. It is possible to study impact of policies that are targeted and are not likely to have major indirect impact on other variables of an economy. However, economy wide analysis is essential when indirect impact of policy changes are wide and other groups and other markets are affected as a result of a trade or financial policy.

427. Over the past 20 years vector autoregressive (VAR) analysis has become a standard tool in empirical research. For several reasons the VAR approach is attractive for the questions we seek to answer:

- It is a flexible way of modelling since it allows all past variables to effect any present variable. Thus it does not force a given theoretical structure upon the data (as far as past values are concerned).
- It is a systems approach that takes into account the interaction of variables. In particular the impulse responses calculated from the VAR trace an innovation to one variable through the entire system.
- It is has desirable time series properties. In a seminal paper Sims, Stock and Watson (1990) have shown that "...the common practice of attempting to transform models to stationary form by difference or co-integration operators whenever it appears likely that the data are integrated is in many cases unnecessary".

428. Any coefficient that can be written as a coefficient on an I (0) variable, and in a VAR model these are all estimated coefficients other than those on the constant and the trend, are consistent and have standard distributions (see also Watson 1994, Hamilton 1994). Thus VAR analysis is a convenient tool, when one has doubts about the order of integration of the variables, as is often the case with macroeconomic data.

429. Time series techniques have been applied extensively to economic data analysis. Useful applications using frequency domain techniques can be found in Granger and Engle (1981). The
most obvious, and oldest, application is to model a single series to provide what are termed "naive" forecasts against which the forecasts from full-scale econometric model can be compared. More recently, the economic models have performed relatively better, although a more stringent criterion was suggested by Granger and Newbold (1977). It will be interesting to continue to compare forecasts from the two types of model. More natural comparisons are between econometric models and multi-variate time series, although the best way to specify the latter is still uncertain. No complete comparison of relative forecasting abilities is available at this time. Multivariate time series techniques can also be used to measure the importance, in terms of improved forecasting ability, by adding further variables to the model.

430. The ARCH model has been used in a number of applications. Engle (1980, 1982) has shown that there are significant ARCH effects in U.S. and U.K. inflation data, and Engle and Kraft (1981) derive conditional multi-period forecast variances from an autoregressive model where the disturbance follows an ARCH process. Robbins (1981) estimates a model in which the conditional variance of excess returns for short rates affects the liquidity premium for long rates. Engle, Granger And Kraft (1981) use a multivariate ARCH model to compute optimal time varying weights for forecasts of inflation from two competing models.

431. The obvious application of univariate spectral analysis is to investigate the presence or not of cycles of data. A related application is to compare the estimated spectral shape with that suggested by some theory. Estimated spectra of a wide range of economic series give no evidence of strict cycle except for the seasonal component.

432. Howrey (1972) calculated the spectra of major variables implied by the Wharton model and compared them to the typical spectral shape and generally found the econometric model did produce the correct spectral shape. The power spectrum is obviously useful both to find out if series contains a seasonal component to measure its strength and also to investigate the effect of seasonal adjustment. The spectral technique has been used also by Sargent and Sims (1977), the Guweke (1975, 1977) and Singleton (1980) to examine unobserved variables in a group of series. The way econometric has developed in the recent year the difference between time series method and the rest of econometrics has become fuzzy. The textbooks on econometrics such as that by Maddala (1977) confirm this view.

433. The policy makers would provide the model builder with alternative policy options whereas the modeller would provide the findings of their result using this policy option. This would make it possible at the governmental level to choose a set of desirable policies depending on the outcome. It is interesting to note that in such simulation exercises on policy maker's alternative policy option can be incorporated into a macro econometric model if the policy maker can explicitly formulate the steps to be taken. Therefore, this process brings a communication between policy makers and economic modellers so as to formulate the desirable set of polices for improving the condition of the economy.

434. Unsurprisingly, these advantages of time-series econometric models come at a price. First, the number of variables that can be included in the VAR is limited because due to its unrestricted nature the model runs out of degrees of freedom quickly. "In practice, VAR modeling for more than four variables is rarely feasible" (Charemza and Deadman 1997). Second, since it is a systems approach that rejects the standard endogenous-exogenous distinction, it is against the grain of the model to include exogenous control variables. Thus we do not have control over variables other than the ones in the system except for a time trend. The standard VAR approach regresses all variables on its own lags and the lags of all other variables. Thus, VAR analysis may be inappropriate for gender-aware evaluation of fiscal policies.
6.2.3 Approaches to Gender-aware Macroeconomic Models

435. The modelling approach has been used for economic analysis for a long time. A model is a simplified representation of the real economy. Econometric models are generally algebraic models that are stochastic in including random variables (as adopted to deterministic models, which do not include random variables). The random variables are generally included as additive stochastic tends to account for human measurement error of data and omissions of variables, etc. Such models can be either linear or non-linear.

436. The Economic Commission for Africa has developed a gender-aware macroeconomic model, which could provide a formal framework for gender-aware evaluation of fiscal policies in African economies. It aims to demonstrate to policy makers with numerical precision, how gender inequalities in national accounts and fiscal policy might have differentiated impacts on women and men in terms of, for example, employment, income, leisure time, education etc. The model is also expected to generate insights into how these gender differences in economic behaviour impact on various macroeconomic outcomes (e.g. growth and poverty reduction).

437. In 1994 a series of workshops were held at the University of Utah to discuss ways in which macroeconomic models could incorporate gender. In 1995 the papers that resulted from these workshops were published in a special issue on “Gender, Adjustment and Macroeconomics” of the journal *World Development* Vol 23, No 11. In their introduction to these papers, the editors, Nilufer Cagatay, Diane Elson and Caren Grown, suggest there are four approaches to gender-aware macr oeconomic modelling.

438. The first approach is the “gender disaggregation” method that involves disaggregating existing variables of the macroeconomic models. This method does not involve incorporating unpaid household labour into the analysis. It does however involve distinguishing the separate employment and income streams of men and women. Thus, to the extent that men and women have different investment, consumption and saving behaviour, different inter-gender income distribution patterns would be associated with different macroeconomic outcomes.

439. There is evidence to suggest that women have a higher marginal propensity than men to spend on goods and services that benefit children and enhance their capacities. Hence, in models that take investment in human resources as a crucial determinant of long-run growth, greater income distribution toward women would increase the long-run growth rate of the economy.

440. As the gender disaggregation approach does not explicitly incorporate the household as a production sector of the economy into the macroeconomic model, it cannot show the interactions between market production and household production. Cagatay, Elson and Grown also observe that the gender disaggregation approach may be more applicable to economies where there are large informal production sectors dominated by women.

441. A second approach is the “gendered macroeconomic variable” method that captures the structure of gender relations by incorporating variables such as the degree of gender inequality in the labour and credit markets. In this approach it is suggested that such parameters of the macro economic models as capital-output ratios, savings ratios, and import ratios are partly determined by the degree of gender inequality in the economy.
442. The third approach is the "two sector or two system" method, which ECA is adapting. This entails a binary or twin economic system that conceptualizes the total economy of a country as consisting of two interacting systems, similar to the binary or double stars of the astronomical universe. One system comprises the traditional variables of the market economy and the other, twin system, comprises the variables of the unpaid household non-market economy. This method analysis focuses on tracing the feedbacks between the variables in these two systems. To construct a working model of the twin system economy we shall need the full data from a set of satellite accounts of household production.

443. The fourth approach outlined by Cagatay, Elson and Grown involves a combination of the other methods.

444. The ECA has adapted the third approach of a gender-aware model based on Social Accounting Matrices (SAMs) using data from time-use and household surveys and integrating it into a computable general equilibrium model (CGEM). It is useful to use a multisectoral modelling framework for policy analysis of non-market work. Such a model can be used for analyzing impact of macro policies on women’s welfare. It is important to recognize that gender neutral policy is blind to critical outcomes impacting the welfare of women, who form the majority of poor in a developing country.

445. Such models have been used by several governments in Africa and are now being used also by OECD countries for evaluating policy impacts on poverty reduction, but without considering gender component. The need to integrate the gender differences into policy advice, design and implementation is important to achieve gender equity and poverty alleviation. Without gender analysis, the policy decisions would be based on untested assumptions which could cause high risk on the welfare of women.

446. CGE models are powerful tools to capture, in a general equilibrium framework, all direct and indirect effects of macroeconomic policies on market, and non-market activities. It is an excellent tool to capture specific African socioeconomic characteristics, as well as interactions between male and female market work, domestic work and leisure time activities.

447. Such a model would provide a useful vehicle for generating initial null hypothesis on the impacts of policy changes where none previously existed such as in most African countries, or challenge the prevailing view. They also provide for assessments of the impacts of policies, which may challenge the new perspectives gained as a result of using the model to guide policy making (Box 6.4.1). The model will make it easier to demonstrate to policy makers the rationale to adjust their macroeconomic policies. Besides, the models will help us identify new research areas that will be needed to improve engendering macroeconomic policies. And a similar approach can be used to identify linkages with other crosscutting issues such as the environment and natural resources, all of which pertinent to poverty reduction efforts.

448. However, models are not without problems. They all pose challenges for users of existing models and builders of new models including the choice of the model, but done in an intelligent and focused way and in the context of contemporary debates on policy issues such as gender inequality, the rewards can be large. In particular, a good understanding of the underlying structure of each model and the degree of simulation results is specifically needed if we are to assess how well a specific model captures the underlying economy.
6.3 Expected Outcomes of Modelling Work

449. Like formal models used by governments including central banks in Africa, the proposed model is expected to fulfil several useful functions.

- It can help an institution organize its body of knowledge and state its arguments with theoretical precision, isolate key gender-related variables, specifying in an unambiguous way the nature of interaction between these and thereby improve its policy analytical and advocacy work.

- It can ease the difficulty of communication with those economists who have little knowledge of how gender matters in the way the macroeconomic functions. For example, it can reveal how gender inequalities in national accounts and fiscal policy might have differentiated impacts on women and men in terms of, for example, employment, income, leisure time, education etc.

- The model is also expected to generate insights into how these gender differences in economic behaviour impact on various macroeconomic outcomes (e.g. growth, poverty reduction etc.).

- Given that the proposed model is expected to be quite effective in demonstrating the potential effectiveness of gender aware policies to policy makers, it will be a powerful tool for facilitating policy choices and investment priorities (Box 6.4.1).

- The models will also help us identify new research areas that will be needed to improve engendering of macroeconomic policies including budgetary policy.

Box 6.4.1 IMPACT ANALYSIS THROUGH A CGE MODEL

Through the use of the CGE model it is possible to study the impact of policy changes on the industrial output resultant income distribution and hence on poverty. Most the impact analysis works through the formation of prices in the model as the first shock. For example, tariffs are a part of the import price so that domestic sales price is import price \((1+\text{tariff})\times(1+\text{sales tax})\times\text{Exchange rate}\). The production price again depends on excise tax so that it is value added price \((1+\text{excise tax})\). The term price of value added is generally only used by CGE modellers. This could be defined as value of gross output in production prices minus the value of intermediate cost. Now we see that many variables have entered the price equations. The policy variables are the exogenous variables that can be changed in the model. The prices are an outcome and are endogenously determined.

In the above equations the policy variables are:
- Tariff
- Excise tax
- Sales Tax
- Exchange Rate

If any of the above are changed then the relevant prices will change. If tariff rate was 40% and this is then reduced by 10 percentage points to 30%, then naturally the domestic price which depends on import price would get affected and get reduced. The lower prices would generate an increase in demand for the commodity and production would increase to match this demand. This is so because in CGE all markets clear and demand equals supply in all markets. (Rigidities can be built in as wedges and then markets will clear again taking after accounting for these wedges). Now an increase in production would necessitate an increase in employment according to the structure of employment in the sector/sectors. There will be an increase in demand for labour by types. Then wages would clear the labour market. If there is an increase in demand for women workers then the wages of such workers would rise. Accordingly the households who have such workers as members would have an increase/decrease in income. So it would be possible to see what types of households and what types of market workers gain due to a change in tariff rate.

Same is true for sales tax. The impact would trickle down to the households in the same manner. However the choice whether government tackles the sales tax or tariff depends on the resource management of the government. Moreover, in case customs are not reduced then consumers would not be exposed to better qualities of products. Also domestic players would keep their profit margin up without any competition and generally demand for goods would not rise as much. There will be generally a slack economy which would not be able to generate higher production and people would not be able to improve their standard of living. At the same time tariffs cannot be reduced very much at one go because then the domestic producers would collapse creating chaos. So the policy choice lies with the strategy of the
government. However, it wants to examine how the different policy choices would impact the economy and the different types of income earners. Hence an economic model as the CGE is useful to examine these choices.

Source: Anushree Sinha, 2003

6.4 Features of a Gender-aware Macroeconomic Model

450. Various institutions including the University of Laval in Canada, UK's Department for International Development (DFID) and the National Council for Applied Economic Research (NCAER), India have initiated work using standard Computable General Equilibrium (CGE) models. The “two sector or two system”, which is being adapted by ECA follows a neoclassical structuralist modelling tradition presented in Marzia Fontana (2000) and Anushree Sinha (2001). The model’s accounting framework will be extended by (a) treating men and women as separate factors of production, and (b) by treating household production activities and leisure activities as additional sectors, in addition to the usual market-economy sectors.

451. Improvement in data collection and advances in computer technology and software has enhanced advanced methodology of applied policy work. Most of the equations in CGE models are microeconomic and specify exactly how the quantities supplied and demanded in each market respond to price changes, but there are also a few macroeconomic equations to make everything add up correctly such that for example, saving equals investment. Such equations used in CGE models are now standard.

452. Data on household factor (labor and capital) endowments are collected by activity so that the same factor might have different returns according to market activities performed by the household.

453. According to the characteristics of the labor market in developing countries and the short and medium term prospects for this modeling exercise, labor mobility is restricted within three aggregate sectors: agriculture, industry and private services (private non-agriculture), and government services (public services). Therefore, the return to labor is determined by the supply and demand in three different sub-markets related to the aggregate sectors. There is no labor mobility between these sub-markets.

454. CGE models traditionally are limited to the market sphere of the economy, and make at least three hypotheses relatively to gender:

455. First, they assume that men and women face the same labor market and are perfect substitutes, i.e. there is no difference for households (firms) to supply (hire) male or female labor, whereas employment surveys in Africa shows significant gender bias in the labor market. The 2002 report on men and women in South African shows that the unemployment rate is higher for women than for men within each population group, and in both urban and rural areas; Formal sector work is far more common for men than for women; Employed women tend to cluster into a small number of industries compared to men; women are significantly more likely than men to be employed in clerical jobs on the one hand, while men are far more likely than women to be employed as operators on the other hand; and mean hourly earnings are higher for men than women across all population groups. Therefore, the first step of the modeling exercise will consist in the segmentation of the labor market into male and female workers to highlight the gender bias observed in the South African economy.

\[\text{Discussion on labor market segmentation in developing countries is given in Agenor et al. 2001.}\]
456. Second, it is assumed that male and female labor and leisure time are affected in the same way by shocks and policies, allowing therefore the use of a single representative agent for them. While most computable general equilibrium (CGE) models do not incorporate a labor-leisure choice, a number of studies have included endogenous labor supply in their model. Although the majority of these studies focused on issues other than gender, they have shown the importance of household’s allocation of time between work and leisure for the welfare impact in tariff analysis. Mayer (1991) derives the effect of a change in tariffs on labor supply. Roussland and Tokarick (1995) show that welfare gains on tariffs removal is higher in work-leisure models than traditional exogenous work models. We introduce work-leisure choice of the household members who make a trade-off between working outside (market work) and performing household work or personal activities (leisure).

457. Third, home production and leisure activities are non-separable by assumption whereas the 2000 South African survey for time use shows that men are more likely to be producing market goods and services and take more leisure time. Women, meanwhile, are more likely to do the work of rearing and caring for children, caring for other household members, cooking, and cleaning. Also the ICRW (1980) stated that it is not likely that home production and leisure activities will be affected in the same way by changes in technology, wage rates or socioeconomic variables and it is therefore important for empirical analysis to separate these two activities.

458. We relax this assumption by broadening time use to include not only market production but also domestic production and leisure. One consequence is that both male and female labour supply (to home and market production) is endogenous. Both male and female leisure enter the household utility function. Male and female time allocation changes in response to changes in relative marginal returns in different uses, making it possible to study trade-offs between male and female market work, domestic work, and leisure.

459. The “core” model used by ECA is adapted from the “Exter-Plus” archetype. It incorporates the principal characteristics of most of the models used in income distribution and poverty analysis of macroeconomic policies. Of course, models may vary from country to country according to the degree and nature of disaggregation (households, factors, sectors, commodities) and in the specific functional forms chosen. However, the gender macro-modeling presented in this paper can be easily adapted to different macroeconomic frameworks.

460. The starting point is the standard CGE model where workers are not distinguished by gender. A computable general equilibrium (CGE) model is a system of equations, which simulates the working of a market economy. The prices and quantities of all goods and factors are determined simultaneously in every market (hence G for “general”) by the need to equate supply with demand (hence E for “equilibrium”). The system of equations is simultaneously solved using a numerical database ranged in a matrix format called a Social Accounting Matrix (SAM), and a computer with appropriate software (hence C for “computable”).

461. “A SAM is a square matrix in which each transactor or account has its own row and column. The payments (expenditures) are listed in columns and the receipts are recorded in rows. As the

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9 Kemp and Jones (1962), Mayer (1991); De Melo and Tarr (1971); Ballard (1984); Whalley and Piggott (1996); Bovenberg, Draafland and Mooij (1998); Etc.

10 Roussland and Tokarick (1995) incorporate leisure as a substitute for certain goods and services, and a complement for others.

11 Fofana, Cockburn, and Decaluwe (2004).
sum of all expenditures by a given account (or sub-account) must equal the total sum of receipts or
income for the corresponding account, it follows that row sums must equal the column sums of the

462. Round (2001) mentioned that “the main features of a SAM are threefold. First, the accounts
are represented as a square matrix; where the incomings and outgoings for each account are shown
as a corresponding row and column of the matrix. The transactions are shown in the cells, so the
matrix displays the interconnections between agents in an explicit way. Second, it is
comprehensive, in the sense that it portrays all the economic activities of the system (consumption,
production, accumulation and distribution), although not necessarily in equivalent detail. Thirdly,
the SAM is flexible, in that, although it is usually set up in a standard, basic framework there is a
large measure of flexibility both in the degree of disaggregation and in the emphasis placed on
different parts of the economic system.”

463. The detail in the SAM might not be limited to the real economy; it is sometime extended to
incorporate financial sectors and the flow of funds (Decaluwe, Martens and Souissi, 1994,
can be a useful bridge between markets and non market activities. As a flexible accounting
framework it might incorporate non-market activities with comprehensive links to market
activities and household and other institutional sectors. Extending a SAM to include non-market
activity does not necessarily result in modifying the standard structure of the framework;
household and personal activities may be incorporated using so-called “satellite accounts” that are
comprehensively linked to the rest of the framework. In the next sections, we briefly describe the
basic structure of a SAM, and then propose an extension to the non market activities.

a) - Structure of the standard social accounting matrix

464. There are six types of accounts in a SAM (Table 6.4.1): factors account (labour and capital),
the current accounts of domestic institutions (households, firms and government); the rest of
the world account, production activities accounts; commodity accounts; and the capital account (see
Table 1).

- Factors of production accounts typically include labour and capital accounts. They receive
income from the sale of their services to production activities in the form of wages and rents
(rows 1 and 2). In turn, these revenues are distributed to households, in the form of labour
income and distributed profits, and to firms, as retained profits (columns 1 and 2).

- Domestic institutions include households (usually broken down by socio-economic groups),
firms and the government. The household account receives factor income as well as transfers
from firms, government, and the rest of the world (row 3). Household expenditures consist of
consumption of goods, transfers, and direct taxes with residual savings transferred to the
capital account (column 3).

- Firms receive gross profits, and transfers from other domestic institutions and the rest of
the world, and spend on taxes and transfers (interest, dividends and direct taxes payments to,
respectively, owners of financial assets, shareholders of corporations, and the government)
with their residual savings imputed to the capital account (row and column 4).

- On the income side the government receives tax revenues (net of subsidies) from a variety of
sources (direct taxes; indirect taxes including production taxes, and taxes on products, e.g.
value added taxes; and taxes on exports) and transfers from domestic institutions and from abroad (row 5). The government account allocates its expenditures on buying the services provided by the commodities' account, mainly public and administration services. Other government expenditures are transfers and subsidies to households and companies; the remaining savings are transferred to the capital account (column 5). Tax sub-accounts collect taxes from activities and institutions and channel them into the government account (rows and columns 5.1, 5.2, 5.3 and 5.4).

- The receipts (row 6) of the production activities are derived from sales on the domestic market, and foreign market (exports). The expenditures of production activities (column 6) include the purchase of raw material and intermediate inputs with the remainder constituting value added, which is distributed to factors of production in the form of wage payments and rent, and indirect taxes payable to the government (e.g. a production tax).

- The commodity accounts buys (column 7) products from domestic producers and foreigners in the form of imports and sells them (row 7) to households, government, production activities (intermediate inputs), the capital account (investment) and the rest of the world (exports).

- Account 8 is a combined capital account. On the income side (row 8) it collects savings from households, and companies, and the government as well as foreign savings. It, in turn, channels these aggregate savings into investment (column 8).

- Finally, transactions with foreign residents are recorded in the rest of the world account. These transactions include, on the receipt side (column 9.a), the commodities' account expenditures on imports (final goods, as well as intermediate goods and raw materials), factor payments and current transfers to the rest of the World. The domestic economy, in turn, receives income from the rest of the World (column 9.a) for its exports, as well as factor income and transfers. The difference between total receipts and payments with the rest of the World is, by definition, the current account balance. The export sub-account is a part of the rest of the world account; it receives income from the rest of the world (row 9.b) and spends it on home produced goods and services (exports), as well as taxes to the government (column 9.b).

b) - Engendering the standard social accounting matrix

465. The standard SAM presents a single labour account that is usually disaggregated by skill, region and/or other non-explicitly gender criteria (Table 6.4.1). Most standard CGE models make the implicit assumption that male and female workers are perfect substitutes in market production, although many studies mention segmentation in the labour market between men and women, and different levels of market work flexibility according to the domestic tasks they perform.

466. In a gendered SAM (Table 6.4.2, the labour accounts (which might include more than one category of workers) are disaggregated into male and female labour accounts. Workers receive income from services provide to industries in the form of wages (rows 1a and 1b). Male and female wages then constitute labour income for households (columns 1a and 1b).
c) - Extending the Gender-aware Social Accounting Matrix

467. In this section (Table 6.4.3), we incorporate non-market activities (household production and leisure activities) in the standard structure of the SAM using satellite accounts as suggested by the SNA93 in the national accounts. Non-market activities are integrated into a SAM-based framework without interfering with market activities.

468. We assume that non-market home goods are produced using only male and female labour and do not directly require intermediate inputs or capital. Alternatively, Gronau (1973) and Graham and Green (1984) incorporate market intermediate inputs in home production activities. Practically, it is difficult to follow this approach using a CGE-based framework, because national surveys do not usually distinguish intermediate and final consumption of market goods by households. This hypothesis is not likely to influence our model results as intermediate inputs are generally considered to be a fixed proportion of production and their consumption is implicitly captured in the household direct utility function.

469. Male and female domestic work (rows C10 and C11) serves in home production activities. We impute a wage value for this work, which is paid to households (columns C10 and C11). Home production activities use factor services to produce home commodities (row C12). Because there is no market for home made commodities, the household sells home-produced goods and services to itself (column C12).

470. Personal activities (or leisure) use only male or female time whether the activity is performed by males and females, and are exclusively consumed by the household (rows C13 and C14). These services are implicitly "purchased" by the household using imputed "wages" for labour time devoted to these activities, as discussed in section IV (column C13 and C14).

12Gronau (1977) and, Solberg and Wong (1992) use similar hypotheses.
13Performing an approach in which home production activities use intermediate inputs and capital, we need to know which goods purchased by the household are used for final consumption, which for intermediate consumption and which are fixed assets. Budlender et al. (2002) mention that some European countries are attempting to use the Classification of Individual Consumption by Purpose (COICOP) to help with this decision. Schafer and Schwarz (1992) and Varjonen et al. (1999) suggest an allocation of different categories of goods. As stated by the authors it is difficult to follow this approach in South Africa as the country has not yet developed the COICOP system in sufficient detail. The analysis might even go beyond these approaches and introduce Gronau's concept that individuals or households only consume services. Goods purchased by them are used to produce services, e.g., agriculture and food are used in meal preparation. In this case home equipment is used either in home production or personal (leisure) activities. Although expenditures on durable and non-durable goods are usually recorded in the standard SAM, additional data, such as the return to households' assets and unpaid labour used in non-market activities, is required in this approach.
14As we will see later, the "price" of these goods is simply equal to their average cost of production in imputed wages, such that household income from domestic work exactly covers the cost of its consumption of home commodities.
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<th>TABLE 6.4.1: STRUCTURE OF A STANDARD SOCIAL ACCOUNTING MATRIX</th>
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<th>Table 6.4.3: Structure of an Extended Gender-Aware Social Accounting Matrix</th>
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<td><strong>SNA Production of Non-Market Activities</strong></td>
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<td><strong>SNA Male Labour (C1)</strong></td>
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6.5 Steps for Constructing a Gender-aware Computable General Equilibrium Model: a Case for ECA

471. The basic steps followed in gender-aware modelling are outlined below and the summary of the report on the first gender-aware modelling work by ECA is presented in Box 6.4.1.

472. In its simplest form, the application of CGE simulation techniques is identical to the procedures followed in disaggregating household categories in a standard CGE model. The steps outlined below are basic in that the step-by-step instructions using computer software such as “Exterplus” are omitted. These will be provided by the modeller introducing the gender-aware CGE model in the country.

Step 1: We quantify household production so as to integrate in our analytical tool. Build a framework where total activity of a person is quantified. This requires classification of different types of activities accurately so that it is possible to account how much time a person spends a particular activity. The information would be used in developing a base data set for constructing the gender-aware CGEM in the form of a social accounting matrix (SAM). The data for such a SAM would be based on time-use surveys, living standard household surveys and national accounts statistics for the specific country. A social accounting matrix makes possible the determination of balances for all commodities and budget constraints for all agents. A SAM could be used to assemble the data for a computable general equilibrium model of an economy, for example, in the gender and international trade modelling work. Standard SAMs do not offer much gender-disaggregated data. At this stage, raw data are analyzed and cleaned up for building the SAM.

Step 2: Develop a specification for the Social Accounting Matrix (SAM) that incorporates non-market activities (work and leisure) and is gender-aware (meaning variables are distinguished by sex).

Step 3: Construct a SAM, containing information about its economic and social structure. An example of such a SAM containing only three factors of production (female labour, male labour, and capital) is presented in Table 6.4.2. This is not a detailed customary SAM but simplified to illustrate the principle of a gender-aware model.

Step 4: Specify a list of stylized macroeconomic policies and exogenous shock scenarios that are relevant to African economies and from which simulations with the model will be selected.

Step 5: Construct a gender-aware model based on the gender aware SAM. The model should incorporate both market and non-market activities. This implies that the framework allows for measurement of the total activity of a person. Moreover, movement from one type of activity, i.e. household production to another such as market production should be a possibility and is to be accounted for. This implies a 24 hours time allocation model. A CGE model allows formulations to distinguish such aspects and the SAM base of a CGE model should define the structural linkages in the economy, including the gender dimensions. The Schematic SAM below describes the structure of a gender SAM. The cells that have X are the ones that report values and have linkages. The other cells do not have mutual linkage. The row totals and column totals (represented by $Z_{js}$ in the following SAM) are equal.
Step 6: Carry out a series of policy simulations that illustrate the nature of the insights that such a model can provide under different scenarios. A CGE model can be used to decompose the effects of policy changes. This can also evaluate feasible policies or “policy packages” in a systematic fashion. Such a model can assist in policy formulation by permitting comparisons across the set of compatible policy combinations. Further, CGE models are useful in tracking the distribution consequences of policy choices. And more importantly, CGE models can be used for poverty analysis by formulating poverty indicators.

Step 7: Drawing on the results from the scenario analyses, produce a draft report that demonstrates how a gender-aware modelling exercise can be used to quantify the impacts of macroeconomic policy shocks upon men’s and women’s time allocation, welfare and poverty in Africa. Counterfactual analysis can be carried out with the use of CGE models. A CGE model, extended in this way to include the household economy and leisure, and with suitable re-action functions, offers possibilities for determining the trade off between Gross Market Product (GMP) and Gross Household Product (GHP). Some policy adjustments could increase GMP to the detriment of GHP with a net reduction of Gross Economic Product (GEP), the sum of GHP and GMP. Potentially the model should also be able to consider effects on leisure time. Women and men would probably respond in different ways to particular macroeconomic policies. Policy shifts would also be likely to produce interactions between husbands and wives to re-allocate the divisions of labour within households.

Step 8: Present the draft report on the results of gender-aware model tests for a review and validation to an expert group meeting to be attended by African countries, as well as modellers and statisticians from private institutions and universities world-wide.

Ismael FOFAHA15, Bernard DECALUWE1, John COCKBURN1, Alfred LATIGO16 and Omar ABDOURAHAMAN2.

This paper reports on the development and testing of a gender-aware Economic Commission for Africa (ECA) computable general equilibrium model for South Africa to analyze the impact of fiscal policies and exogenous shocks on poverty reduction. The analysis of fiscal policy and its differentiated impacts on women and men’s poverty is of crucial importance because of emerging evidence. Over the past decade, there has been a growing recognition that fiscal policy is a key policy instrument in influencing men and women’s welfare and their prospects for economic empowerment. It can contribute to narrowing or widening gender gaps in time use, incomes, health, education, nutrition etc. Although gender-related development issues have prompted serious debate, the absence of appropriate gender-aware macroeconomic analytical tools has penalized quantitative analyses.

We address this deficiency by first incorporating non-market activities (household production and leisure activities) in the standard structure of the South African Social Accounting Matrix (SAM) for 1998 using national satellite accounts of household production (NSAHP) as suggested by the UN 1993 SNA in the national accounts described in detail in Part I of this report. Previous work on CGE models in Africa and elsewhere had not formally prepared and integrated NSAHP into SAM based on time use data and Sectoral data.

We then use the extended gender-aware SAM as a database to construct a gender-aware CGE model based on the “Exter-Plus” archetype that incorporates the principal characteristics of most models used in income distribution and poverty analysis of macroeconomic policies. No quantitative analysis has been made before on the differentiated impacts of fiscal policy on women and men in African countries in terms of its effect on poverty reduction and welfare other than earlier study on modeling effects of trade policy on women in Zambia (Fontana, 2002). Our model is used to simulate the economy-wide impacts decomposed by gender and population group of the elimination of tariff barriers in national budget with a compensatory increase in direct taxes for lost tariff revenue on poverty reduction and welfare.

This work is consistent with recent findings that WTO agreements and trade or custom union Trade liberalization processes impact differently on men and women due to the fact that men and women have different roles in production (Cagaray, 2001). South Africa is a member of World Trade Organization (WTO) since 1995 and since 1969 participates in the Southern Custom Union.

The study demonstrates that a gender-aware modeling exercise can be used to quantify the impacts of macroeconomic policy shocks upon men’s and women’s market and domestic work activities, leisure time and wage rate, as well as the poverty and welfare consequences for their households. The analysis has generated important results and intuitions for policymaking in poverty reduction strategies that would be unnoticed in standard non-gender-aware CGE model in encapsulating the full interaction of the market economy with the household economy – the “binary or twin economy”.

Firstly, through the gender decomposition of labor, combined with the hypothesis of imperfect substitution, we note that trade liberalization in South Africa would have a much more positive effect on male real wages than on female real wage rates. A complete elimination of import tariffs appears to generate a strong gender bias against women with a nominal wage reduction that is more than double that of their male counterparts. This is due to the fact that male workers derive substantially more labor income from the mining sectors where labor demand increases. Women workers are more concentrated in textiles and certain service sectors, where value added prices and production fall and consequently, labor demand.

Secondly, trade liberalization is shown to increase the labor market participation of all workers, particularly in the case of male workers. Indeed, the three export-oriented mining sectors where male workers

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are dominating, experience the greatest increase in labor demand as a result of trade liberalization. Thus, our results indicate that the gender bias in labor market participation would increase. Furthermore, we find that workers adjust primarily by reducing their leisure time, although domestic work time also falls. As male workers increase their labor market participation proportionately more, they also reduce their domestic work participation more, which accentuates the existing gender bias toward women performing domestic work. At the same time, male workers also experience a much greater reduction than female workers in their pure leisure activities. All these strong results would go unnoticed if the model was not gender disaggregated.

These results suggest a direct welfare loss for all workers, particularly male workers, resulting from the fall in leisure time and the increase in market work time. However, this is counteracted in part by an increase in real wages, once again primarily for male workers. As male labor market participation and real wages increase more than for their female counterparts, their income share increases, which is likely to reduce the bargaining power of females in their households, although this is not modeled explicitly in this exercise. Finally, at the household level, we note that trade liberalization brings about revenue losses for government that, in this case, we assume to be compensated through an increase in direct taxes, which explains the very small net negative impact on welfare.

Although the overall net negative effect impact of elimination of import tariff on national welfare is small, two key issues would need Government attention regarding policy on women time use and compensatory taxation. Firstly, the simulations showed that because of the many competing demands, women continue to suffer from heavy time burden – they spend roughly three times as much time in household production and services as men. It is therefore important to design complementary policies to reduce the time burden on women due to many competing demands on their time through measures that save time or improve productivity of time use, such as women’s access to education, land, credit, information, and technology. Secondly, the simulations showed that at the household level, trade liberalization brings about revenue losses for government. While revenue loss on the part can be offset by through an increase in direct taxes, compensatory taxation that benefits poor households, especially women should put in place to ensure for example, equitable income distribution among women and men.

The model simulations showed how important time use studies are to African governments for preparing NSAHP so that household production and services (non-market production and leisure) are integrated into macroeconomic framework. Thus this initiative attempts for the first time in Africa to bring together economic and household information in a common framework to measure the contribution of household production to the economy and to assess the impact of the economy on household production. Overall, the development of this model and its potential applications demonstrates one practical approach for mainstreaming gender perspectives and household production at large in national accounts, budget and policies.

The paper concludes by highlighting areas of gender-aware macroeconomic analysis that might benefit from more detailed application of this framework for poverty and welfare analysis. The conclusion also outlines some of the limitations of this model. It then reviews the need to explore the potential of microsimulation approach, which is based on individual-level welfare and poverty analysis, as alternative to this model that is based on household-level approach.
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Module 7

Integrating Household Production in Government Budgets

Some important concepts

7.1 What is the government budget?

473. Many people see government budgets simply as economic policy instruments. This is a narrow, and incorrect, view. Government budgets affect all government policies—economic, social and protective. The budget is, in fact, the most important government policy tool of all because without money no policy can be implemented.

474. However, while the budget is the most important policy tool of the government, policy making should not start with the budget. In the past and still today, in many countries it seems that budgets drive policy in that budgets determine what can and is done. In truth, causation should go in the other direction. Budgets should be part of a broader planning process. Government should first analyse the situation of the people in the country, then determine the policies and programmes that will best address the needs and interests of the people. Only then should they decide how to raise the revenue and allocate the money to implement the policies and programmes.

475. This conception of budgets is in line with what is being promoted in budget reforms in many African countries at present. The approach provides a solid and sensible basis for GRB work as well as for work on budgets and household production.

7.2 What are gender-responsive budgets?

476. Because men and women, girls and boys play different economic and social roles and have different economic and social responsibilities, the same policies and associated budgets have different implications for them. GRB therefore advocate that policies should be designed and budgets drawn up in a way that addresses the different needs and interests, and pays most attention to the needs and interests of those who are least able to fend for themselves. GRB initiatives also, ideally, recognise that gender is not the only determinant of needs and interests. In particular, gender intersects with ethnicity, location (urban-rural), class and income differences, and age. As this module shows, gender also intersects with the different types of production in which the women, men, girls and boys engage.

477. GRB initiatives involve analysis from a gender perspective of the policies and programmes funded through the budget. The main question asked in this analysis is: In what ways are the policies and their associated resource allocations likely to reduce or increase gender inequality?
478. The ultimate aim of a GRB initiative is to produce a GRB. However, a GRB is a relative concept – the budget of a particular country or ministry will sometimes increase gender inequality, sometimes leave it the same, and sometimes lessen gender inequality. Often it might increase gender inequality in one aspect, but lessen it in another. There is thus no easily verifiable measure of whether or not a particular budget is gender-sensitive. Instead, we need to do a detailed analysis of the budget’s components and their effects.

479. Different writers have used the terms 'gender-sensitive' and 'gender-responsive'. There are no important differences between the two terms. To complicate matters, sometimes different people will not agree about whether a policy or programme is gender-sensitive or not. The disagreements happen because there are different ideas as to what gender equality means and to the roles women and men should play in society. Similar differences of opinion are discussed further below in relation to budgets that affect household production.

480. Different GRB initiatives involve different actors. In some countries, government officials have taken the lead. In others, it has been parliamentarians. In yet others it has been civil society organisations. The aims and form of a GRB initiative will differ according to the actors involved. If officials are involved, the aim will usually be to draw up, implement and manage budgets in a gender-responsive way. If civil society organisations or parliamentarians are involved, the analysis is usually post-hoc – an examination and evaluation of existing budgets, and monitoring of how they are implemented.

481. Ideally, a wide range of actors should be involved in GRB work. For example, government officials should use gender analysis when drawing up their budget, and government should publish a 'gender budget statement' when it tables the annual budget. Parliamentarians and civil society should read the gender budget statement to see what government says it is doing to promote gender equality, and engage in advocacy to change the approach if they feel it is lacking. At the end of the financial year, government should report against the gender budget statement at the same time as it reports on implementation of the overall budget. Again, parliamentarians and civil society can use these reports to check whether government has implemented what was planned.

482. GRB initiatives differ in their scope. Some cover the budget of a particular ministry; some cover key ministries chosen for the size of their budget or because of their importance from a poverty reduction or gender perspective; and some cover all ministries. Some start from a particular gender issue – such as violence against women – and look at the programmes relevant to this across ministries. Most focus on the expenditure side of the budget, but a few have looked at the sources of revenue. Some focus on budgets at the national level, but increasingly there are also GRB initiatives at local level. This module gives examples that illustrate some of this diversity in scope.

7.3 What is programme performance budgeting?

483. Above we noted that many countries in Africa are undertaking budget reforms. Often these reforms include a move towards programme or performance based budgeting (PPB). (This approach is also sometimes called activity-based budgeting). PPB is an approach that tries to get a better match between policy and budget and – in particular – between the overall objective of a policy or programme and the associated budget. PPB also provides for measurement of outputs (deliverables) and outcomes (impact) in addition to money spent.
PPB thus promotes attention to delivery rather than simply seeing the budget as an accounting tool. In countries with poverty reduction strategies, PPB allows government to build targets into their budgets and monitor whether they are being achieved. It also allows for more meaningful public expenditure reviews – another commonly used tool in Africa – which go beyond checking whether money has been spent to what has been delivered.

484. The focus on deliverables is important because the aggregated amounts shown in budgets often do not reveal how the money is going to be used. We can give an example related to the informal sector here. In some countries, local government has a budget for police. As budget analysis we are not only interested in how much is spent on police salaries. We are also interested in knowing whether the police are spending their time forcing street traders off the street or whether, instead, they are spending time protecting street traders from thieves and those who harass them in other ways.

485. The introduction of PPB is often accompanied by the introduction of a medium-term economic framework (MTEF). The MTEF means that instead of budgeting for one year at a time, governments each year draw up budgets for several years (usually three). The budget for the first year is voted on by parliament and becomes the budget law. The budgets for the second and third years are not voted on, but give an indication of what direction government plans to go. The following year, the second year becomes year 1, the third year becomes year 2, and a new year 3 is added. Government can make some changes to the numbers it tabled the previous year, but must explain any large differences from the previous plans.

486. Multi-year budgeting has advantages for both government and outsiders. For government, it helps planning changes to achieve longer-term objectives. For outsiders, it gives a clearer idea of government’s plans. This facilitates advocacy and gives more time to debate and influence government’s direction. Rhonda Sharp (2003) has produced a publication for UNIFEM, the United Nations Development Fund for Women, which discusses in more detail the potential for PPB to promote gender-responsive budgeting.

How do we do it?

7.4 The five steps and three categories of gender budget analysis

487. Two frameworks that have been used by GRB initiatives in many countries are the five ‘steps’ and three categories have been discussed adequately by Budlender and Hewitt, 2003. These frameworks can easily be adapted for budget analysis related to household production.

The five steps

488. The table below describes each of the five steps of gender-responsive policy and budget analysis. Anyone who knows about PPB will see that the steps are very similar to those used in PPB. The table therefore also shows, in the last column, what each of the steps might be called in the PPB approach. GRB adds value to the PPB approach because it does not assume that all people living in the country have the same needs, and that government will affect all programmes in the same way.
A description of the situation of women and men, girls and boys (and different sub-groups, such as rural/urban, age-based, etc) in the sector

2. An assessment of the policy, programmes and projects in terms of their gender-sensitivity, i.e. whether they address the situation described in step 1

3. An assessment as to whether adequate financial (budget) and other resources are allocated to implement the gender-sensitive policy of step 2 effectively

4. Monitoring as to whether the expenditure allocated in step 3 is spent as planned

5. An assessment as to whether the policy and associated expenditure has promoted gender equity as intended, and changed the situation described in step 1

Adapting this approach to analyse the impact of the budget on household production should not be difficult. In step 1, we would describe the producers of the particular type of production that we are interested in and their situation. In step 2, we would assess how the policy, programmes and projects would affect the amount and nature of work that the producers do. In step 3, we would assess whether adequate resources have been allocated to reduce the burden of unpaid care work, to make particular types of household production more efficient and more profitable, or to make the life of household producers better in some other way. In step 4, we would monitor whether the money was spent as planned and delivered the expected outputs. In step 5, we would see whether the situation of the household producers had changed for the better as a result.

The three categories

The three-category approach visualises the budget as made up of three slices or categories, which together make up 100 per cent of the budget. The categories are as follows:

Category 1: Targeted gender-based expenditures of government departments: These are expenditures that are clearly 'labelled' as addressing gender or women's issues. Examples include women's health programmes, special entrepreneurship programmes for women, grants for single mothers, and support for widows.

Category 2: Equal employment opportunity expenditure on government employees: These are expenditure items that promote equal opportunity for women and men employed by government. Examples include training for women managers, provision of crèche facilities, and parental leave provisions.

Category 3: General (mainstream) budget expenditure judged on its impact on women and men, girls and boys: This covers all other expenditure of government. Analysis of this category asks questions such as who needs particular services, and whom they reach. It asks how programmes, projects and the associated budgets take forward government's vision of the roles women and men should play in the society.

Ideally, GRB initiatives should pay most attention to category 3 rather than categories 1 and 2. Categories 1 and 2 can be seen as representing a type of affirmative action or positive discrimination — expenditures that fast-track gender equality. Category 3 represents mainstreaming — using 'general' programmes and their budgets to achieve gender equality.
Ultimately, when all mainstream expenditure is gender-responsive, there will be no further need for expenditures in categories 1 and 2.

495. For budget analysis that focuses on household production, category 2 is not relevant. Category 1 would cover expenditures that directly address household production, for example expenditure allocated to conduct a time use study. Category 3 involves all other expenditures. For example, expenditure allocated to provide electricity to rural households is not explicitly allocated to address household production. However, the expenditure should reduce the time and effort spent by (mainly female) household members collecting fuel. It might also make home-based household production such as hairdressing services and sewing more efficient.

7.5 Deciding what government should be doing

496. Step 2 of the five-step approach involves assessing whether government policies, programmes and projects are gender-sensitive (or sensitive to issues involving household production). Government officials as well as advocates outside government might sometimes struggle to determine whether the policies are gender-sensitive, and/or to decide what government’s role is in addressing particular problems.

An analytical tool

497. The causes-consequences-solutions analytical tool helps in finding the answers to these questions. This tool assumes that you have identified a problem that you want to address. For example, in the gender field the problem might be that the rate of maternal mortality is very high, or that female adolescents are performing worse than male adolescents in the secondary school examinations, or that many women are beating their wives. In the household production field the problem might be that women and children are spending long hours collecting water, that people are not producing enough on their plots to sustain themselves, or that informal economy workers have low incomes.

498. The first step is to determine the causes of the problem. This step is important to avoid basing policy on fuzzy thinking. By insisting on a clear explanation of how this causation happens, this step also avoids a tendency to blame everything on concepts such as ‘globalisation’, or ‘gender bias’, or ‘culture’ without specifying which aspect of these big concepts cause the problem.

499. The second step is to describe the consequences. This is important so that policy makers are aware of the consequences of not addressing the issue. In this step, it is again important to avoid big concepts, such as ‘poverty’ as the consequences. By specifying the consequences more exactly, the analysis will show the link between the problem and the consequences more clearly.

500. The third step is to suggest the solutions to the problem, and determine who is responsible for implementing the solutions. Ideally, solutions should address the causes, or root, of the problem. But sometimes this is not possible, at least in the immediate future. In these cases, government might want to address some of the consequences so that they are less severe.
501. Often the causes-consequences-solutions exercise comes up with a fairly long list of solutions. From a budget perspective, it might be impossible for government to implement all of these solutions. And from a practical perspective, government might not be the most appropriate implementer. For example, with gender problems ‘awareness-raising’ is often offered as a solution. Government is usually not the best implementer for this action. Community groups, religious leaders and institutions, and others might be better. This step therefore helps in prioritising where government should allocate resources, and whom it should work with to do what it will not itself do.

502. You can refine the analysis further by suggesting which part of government should be responsible for particular solutions. When you do this, you might find that a range of agencies have a role to play. Many other approaches to budget analysis start with the budget of a particular ministry or agency and proceed from there. The agency-focused approach tends to miss the inter-agency linkages and synergies. These linkages and synergies are very important in areas such as violence against women and HIV/AIDS. Work on household production will probably also show that there are many problems that require inter-agency efforts.

503. The box describes how to facilitate the causes-consequences-solutions exercise in a workshop setting.

**Causes, consequences and solutions**

Objective: To analyse a problem by making the links between causes, effects and solutions. To encourage discussion of a range of solutions, and think about which solutions are best undertaken by government.

**Doing an example in plenary**
The facilitator first leads an example of this analysis in plenary. Participants are then divided into three groups. Each group is asked to choose a problem that is relevant for the area in which they are active and to conduct the analysis. Groups then report back in plenary.

- **Step 1:** Write the problem at the top of a piece of flipchart paper. Underneath this heading, divide the paper into three columns for (a) causes, (b) consequences, and (c) solutions.
- **Step 2:** Identify the causes of the problem. Write each cause in a separate line in the first column. Encourage participants to be as specific as possible. ‘Poverty’ is too big an issue to name as a cause (or consequence). If the link between the cause and problem is not very clear, ask participants to explain the link.
- **Step 3:** Repeat the process for the consequences, or effects, of the problem. Again, encourage participants to be as specific as possible, and to explain the links.
- **Step 4:** Repeat the process for solutions. Sometimes the solutions will address the causes of the problem. Sometimes they will address the consequences.
- **Step 5:** For each solution, discuss who the most appropriate actors are who should be responsible for this solution. If government is named as an appropriate actor, ask which level of government, or which department.
- **Step 6:** If government is named as responsible for many of the solutions, ask participants to prioritise which solutions are most important i.e. where government should spend its money first, or spend the most money.

**Plenary report back**
Ask each group to report back. Allow time for discussion after each group has reported.

(90-120 minutes)
An example from education illustrates some of the strengths of the causes-consequences-solutions approach, as well as how gender and household production issues interface.

Several countries in Africa have a problem that girls perform worse than boys in secondary examinations. Some might have observed that in recent years the problem seems to be getting more severe. Our problem statement is then: Girls are performing worse than boys in secondary education.

When looking at the causes, we might observe that one reason for poor performance is that girls attend school less often than boys, or seem to do less homework. Thinking further about this cause, we might realise that girls’ burden of household work is preventing regular attendance at school or attention to their studies. This burden might have increased in recent years because of the burden of care for household members who have AIDS.

When we move on to the solutions, one might be provision of home-based care services to lessen the work of the young girls. Another might be provision of taps in or near the homes, so that young girls spend less time collecting water. This could be especially important if part of the cause is AIDS-related care for a sick person increases significantly the amount of water needed each day. These two examples already illustrate that a problem identified by the Ministry of Education requires intervention by at least two other ministries – Health and Water.

The solution depends on our vision of the future

Up until now, we have assumed that everyone will agree on what constitutes a problem, and what the ideal situation looks like. This is not always true.

Gender analysts distinguish between ‘practical’ and ‘strategic’ gender needs. Practical gender needs relate to what women and men require to accomplish the roles and functions that society assigns to them. Strategic gender needs relate to what women (and men) require to shift the current assignment of roles and functions and, in particular, the power relations between them.

We can give two care-related examples, one simple and one more complicated, of how solutions can address the practical or strategic aspects of problems related to household production.

The first, simple, example looks at care for babies. In all countries, women are more likely than men to be responsible for changing babies’ diapers. In some cases, public toilets for women provide a special space where women can do this task. These special spaces address a practical need of women that makes the diaper-changing role easier. However, if these spaces are only found in toilets for women they will do nothing to encourage men to share this unpaid care task.

The second example involves care for people living with AIDS. Many countries in Africa are currently promoting some form of home-based care. These programmes are intended to address the fact that people with HIV-related illnesses now fill up to 60 per cent of hospital beds in some countries. This situation strains government budgets, which were already over-stretched to meet needs. Home-based care is thus proposed as a ‘cheaper’ and ‘more efficient’ approach than institutional care in the hospital or clinic. In some countries,
the government provides some financial and other support to the caregivers who visit the homes or to the organisations that employ them. In other countries, the government relies on the resources of non-governmental, community-based and faith-based organisations.

513. The home-based care programmes can be seen as a practical solution to the increased need for care caused by the HIV/AIDS pandemic. However, many will argue that this solution is not based on a full understanding of the consequences and costs. While home-based care is cheaper for government in terms of money spent, it imposes time, money and opportunity costs on the caregivers in the home, who are usually women. It also imposes costs on the care-givers (again, usually women) who visit the homes as they are usually only paid stipends, and often incur expenses, for example in providing food to the households they visit.

514. Budgets always involve prioritisation and making choices, as there is never enough money to do everything. GRB initiatives aim to make these choices more explicit. GRB initiatives and those that focus on household production will also encourage consideration in the decision-making process of the less visible concerns.

7.6 Reporting on gender in official budget documents

515. Above we noted that government-based GRB initiatives usually involve production of a ‘gender budget statement’ of some sort by government officials. A government-based exercise that looked at how budgets affected household production would probably also require a similar statement. Some readers may wonder what such a statement looks like. The answer is that there are many different forms of gender budget statements.

516. This section therefore looks at how different countries have reported on gender in their official budget documents. The examples include the following:

- The South African Department of Water Affairs and Forestry provides an example of where gender was integrated into the main body of the text rather than having a separate gender budget statement. The example is also the only one in this section that is not based on PPB.
- Gauteng province in South Africa provides an example where each department prepared a short gender budget statement, which appeared at the end of the ‘standard’ budget statement for that department.
- Rwanda provides an example where five pilot departments prepared gender budget statements, which were collated and tabled as a separate document.
- Malaysia provides an example of a very sophisticated PPB format, showing how easily it can be used to reflect gender issues.

517. The first three of these examples include household production issues fairly explicitly. Each example includes a brief description of how the gender budget statement was compiled. This gives some indication of what level of effort is involved in producing the statements.

Department of Water Affairs and Forestry, South Africa

518. The narrative on the South African Department of Water Affairs’ spending appeared in the Budget Review, which was tabled by the Minister of Finance in 1998. At that time, South Africa had not yet adopted a PPB approach to budgeting. The Budget Review thus included both tables showing budget allocations and more descriptive narratives such as that below. In both 1998 and 1998, there was a special effort, supported by the Commonwealth Secretariat,
to make the narratives gender-sensitive. The example below shows sensitivity to gender as well as race, location and poverty issues. It also directly addresses needs and work related to household production.

519. Although the narrative does not follow a PPB format, it implicitly adopts the five-step approach. The first paragraph describes the problem situation to be addressed. The second paragraph describes the programme to address the problem. The second paragraph also states how much money was allocated to the problem. Subsequent paragraphs describe outputs of the programme. The final paragraph – on the Working for Water public works programme – is primarily of interest in showing how commitment to gender equity can make a difference. The same Department manages both the Working for Water programme and the water provision described in earlier paragraphs. However, in the latter over half of workers employed are women, whereas in the former women account for only 14 per cent of workers.

520. A consultant in close consultation with the departments concerned prepared the GRB additions to the 1998 and 1999 national budgets in South Africa.

Department of Water Affairs & Forestry in South Africa

In late 1995, only a third of African households and fewer than three-quarters of coloured households, compared to 97 per cent of Indian and white, had running tap water inside their dwellings. Outside of urban areas only 12 per cent of African households had an inside tap and 21 per cent had a tap on the site, while 28 per cent were collecting water from a river, stream, dam or well and 16 per cent from a borehole. One in six (17 per cent) of African households who had to fetch water from an off-site source were forced to travel at least a kilometre to do so. In 1993, the average time spent on the task by members of rural African households forced to collect water was 100 minutes – over an hour and a half. The average time spent by individual women who collected water was over an hour, at 74 minutes. Just under half of all rural African women over the age of 18 were spending part of their time collecting water.

A programme to supply water to those previously denied this facility was one of the Presidential Lead Projects of the Reconstruction and Development Programme. One thousand days after the 1994 elections, more than a million people had benefited from the ready availability of fresh, safe water for the first time in their lives. By the end of October 1997 the programme had provided basic water supply and sanitation to approximately 1.2 million people and spent approximately R800 million on the more than 1,000 projects initiated since 1994. Of the 195,878 jobs created by the twelve Presidential Lead Projects initiated in 1994/5, 25,750 (13 per cent) were reported to have been taken up by women.

In late 1997, based on available information the Department estimated the involvement of women in various roles as follows:

<table>
<thead>
<tr>
<th>Role</th>
<th>Percentage women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees on schemes</td>
<td>14</td>
</tr>
<tr>
<td>Trainees on schemes</td>
<td>16</td>
</tr>
<tr>
<td>Contractors</td>
<td>None</td>
</tr>
<tr>
<td>Consultants</td>
<td>25</td>
</tr>
<tr>
<td>Steering committee members</td>
<td>20</td>
</tr>
</tbody>
</table>

The Department has initiated the Working for Water Programme as part of its national water conservation campaign. The programme provides for the employment of local people in the clearing of invasive alien plants. In May 1997 7,400 previously unemployed people, of whom more than half were women, were working on the Working for Water Programme. Meanwhile the Forestry division of the Department has encouraged the planting of trees in community woodlots. Women’s groups manage many.

521. The next example comes from the Gauteng province of South Africa. Gauteng is the wealthiest of the country’s nine provinces, and the second most populous. In 2003, the government started a GRB initiative in which each department was required to include in their budget statement tables, which reflected:

- Outcomes and outputs which specifically target women/girls;
- Outcomes and outputs which will benefit women/promote gender equality;
- Outcomes and outputs which will benefit women employees within the Gauteng Provincial Government (GPG);
- Procurement targets; and
- Number of women employed at different levels within the GPG.

522. In Gauteng, the Premier’s Office bears primary responsibility for ensuring that all parts of the government promote gender equality and women’s empowerment. The GRB in Gauteng was therefore led by the Premier’s Office together with the Treasury.

523. The following page shows an extract from the Premier’s Office gender budget statement in the 2003/04 budget book. The Premier’s Office and other departments prepared these statements after receiving only a half-day’s introduction and training to GRB. The budget overview in the budget book of 2003/04 noted that the GPG saw the GRB as an ‘incremental process’ aiming towards a ‘fully fledged gender budget’.

524. The Gauteng government had recently adopted a PPB approach to budgeting when the GRB was introduced. The gender budget work was thus done within this framework. The gender budget statement starts with the outcome – the overall impact that the government is aiming for. From there, it moves to the output, the deliverables of this particular sub-programme. The ‘gender issues’ represent the ‘value added’ of the GRB approach. In this example, there are two very explicit references to household production, namely the discussion of the informal sector and promotion of food gardens. (Italics added in the example.) As with the previous South African example, the Gauteng one discusses gender alongside race and poverty, as well as other cross-cutting issues such as HIV/AIDS.

### OFFICE OF THE PREMIER

Outcomes and outputs that will benefit women/promote gender equality

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Growth and development priorities of the province monitored and implementation appropriately supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>Support given to departmental growth and development related programmes which have a gender dimensions</td>
</tr>
</tbody>
</table>
| Gender issue | 1. Black economic empowerment: Ensure that the province’s BEE programme targets women in a way that removes them from exclusion from financial and economic resources.  
2. Informal Sector: Ensure that support is provided to the informal sector with a special focus on women in a way that allows them to create their own jobs. Also, support programmes that lead to the integration of the informal sector to the mainstream of the economy.  
3. Food Security: Encourage programmes of establishing food gardens for poor households, especially women headed households. This will lead to job creation as well as address the problem of hunger and can help to mitigate the negative effects of HIV/AIDS/  
4. Skills Development: Support programmes aimed at increased investment in Human Resources development and training for women |
and the girl child as well as empowering women to be the builders and architects of their own learning and self-development.

5. Poverty Alleviation Programmes: Support short term employment programmes that target women such as Zivuseni

<table>
<thead>
<tr>
<th>Programme</th>
<th>Policy Development and Co-ordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-programme</td>
<td>Growth and Development</td>
</tr>
<tr>
<td>Indicator/output</td>
<td>High quality applicable reports of assessment of targeted programmes with gender impact.</td>
</tr>
</tbody>
</table>

525. The next example comes from Rwanda. The GRB initiative there started in early 2002, when the Prime Minister in the presence of virtually the full Cabinet launched it. The Rwandan GRB is a joint initiative of the Ministry of Gender and Promotion of Women and the Ministry of Finance. In its first year, it focused on five ministries that included both the biggest spenders and those which had been prioritised in terms of the country’s Poverty Reduction Strategy (PRS).

526. As in Gauteng, the Rwandan GRB was introduced very soon after the country took its first steps towards a PPB and MTEF approach. The Rwandan GRB therefore also built on the PPB format for the gender budget statements. As the example below shows, the ‘added value’ in Rwanda was obtained through adding a column to describe the ‘gender dimension’.

527. In the Rwandan GRB, each of the five pilot ministries was asked to identify the five largest sub-programmes in terms of allocation. This approach was intended to promote mainstreaming of gender, rather than having ministries select small, gender-targeted programmes for analysis. The example below shows what the Ministry of Energy and Water Affairs wrote in respect of water supply and sanitation, their second largest sub-programme. The fact that this sub-programme is one of the largest suggests that, implicitly at least, Rwanda is focusing on a key aspect of household production. The GRB statement makes this focus, and the gender-related reasons for it, explicit.

528. In Rwanda, the budget officials in each ministry prepared their gender budget statements. They were supported through an initial three-day training session, followed by one-on-one sessions with the Gender Adviser in the Ministry of Gender and Women’s Empowerment. The example below shows good use of data from household surveys to back up the statements in the gender dimension column. The indicators include one related to participation – to getting the voice of household producers heard.

MINERENA
2. Water supply and sanitation

Gender dimension
Because of their different gender roles and responsibilities, men and women, girls and boys have different water needs and use it for different reasons.

Women and girls are mainly responsible for collecting water to satisfy common needs of the family: prepare food, wash clothes, but also for the personal needs of family members.

Having easy access to drinking water would substantially diminish women and girl chores and therefore would enable them to take up other activities: activities of functional literacy and that can generate income to women; better performance in school education for girls that can decrease school failure. Indeed, the Household Living Conditions Survey estimates that 15.2 per cent of school failures by girls are because they support their mothers in domestic activities such as water collection.

The average distance to access drinking water is 703 metres. Many households resort to water from rivers and lakes, which is harmful to health.

17 Zivuseni is a public works programme.
Similarly, sanitation is considered as an activity for women and girls. The objective of MINAGRI is to bring the average distance for access to drinking water to 250m and to promote a culture of hygiene amongst men and women and the involvement of men and boys in sanitation activities.

**Outputs**

The sector policy on water and sanitation is engendered and updated by the end of 2003.

**Activities**

Involves women in data collection and reporting.

Collect and analyse disaggregated data on access, sanitation and usage of water by different users, men and women.

Finalise and disseminate the document to men and women.

**Indicators**

Number of women and men who have participated in data collection and reporting.

Disaggregated data reports on access, sanitation and usage of water by male and female-headed households.

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529. The fourth example comes from outside Africa, from Malaysia. It is included because Malaysia has one of the most developed PPB formats in the world. The example thus illustrates what is possible with this approach to budgeting.

530. The example shows the headings used in one of the budget planning documents for the operating budget. Unlike the previous examples, it does not show what a completed GRB ‘product’ looks like as Malaysia is currently still preparing its first gender budget statements. Also, unlike the previous examples the reports written using this format are not public documents and are not tabled as part of the budget. One reason for this is that the reports are very long and would make the budget even more unwieldy than it already is. Nevertheless, if planners and budget makers take completion of reports according to this format seriously, it should influence the budget that is summarised in the public documents.

531. The 14 items listed below were already used in Malaysia before the GRB initiative began. The GRB initiative has not added any further items, except for a single sub-item under Output Specification. However, in the GRB the four pilot ministries are being asked to build gender into all the italicised items. A budget initiative that focused on household production could utilise these same italicised items.

**Malaysia: Programme/project format for operating budget**

<table>
<thead>
<tr>
<th>1 Maksud bekalan (Purpose)</th>
<th>Vote number as per Budget Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Agensi (Agency)</td>
<td>Name of Ministry/Department</td>
</tr>
<tr>
<td>3 Program</td>
<td>Name of programme</td>
</tr>
<tr>
<td>4 Aktiviti (Activity)</td>
<td>Name of activity</td>
</tr>
<tr>
<td>5 Kod (Code)</td>
<td>Accounting code of activity, to facilitate reference</td>
</tr>
<tr>
<td>6 Panca kuasa (Source of Authority)</td>
<td>Cabinet decision, Parliamentary Act or Treasury directive which gives authority</td>
</tr>
<tr>
<td>6 Objektif (Objective)</td>
<td>Previously agreed objectives for the activity. Focused on the problem that needs to be solved based on achievable impact.</td>
</tr>
<tr>
<td>8 Analisis keperluan/dasar (Needs analysis)</td>
<td>Specify the following:</td>
</tr>
<tr>
<td></td>
<td>(i) clients’ problems/needs that need to be resolved. Include empirical data to support the seriousness of the needs.</td>
</tr>
<tr>
<td></td>
<td>(ii) main reasons for the problems/needs;</td>
</tr>
<tr>
<td></td>
<td>(iii) strategy to solve the problems/needs. Include (a) alternative policies and government activities to solve the needs and (b) short- and long-term strategy</td>
</tr>
<tr>
<td>9 Pelanggan (Clients)</td>
<td>Clients who will benefit directly or indirectly from activity</td>
</tr>
</tbody>
</table>

125
10 Fungsi (Functions)
Main functions that must be executed.

11 Sumber-sumber
Information regarding resources allocated to each activity.

12 Spesifikasi output
Final output that has been produced. Information on:
(i) quantity of output
(ii) quality of output
(iii) timeliness of output
(iv) cost of output
(v) equity (gender addition)
For each of the above, include data on:
- agreement/achievement/variance
- proposal for next year

13 Petunjuk impak
Indicators of activities, according to specified system

14 Rancangan penilaian program (Programme evaluation plan)
State:
(i) year of commencement of programme/activity
(ii) when last done and proposal for next evaluation
(iii) main criteria that will be assessed in future reviews
(iv) proposed methodology to obtain data for assessment.

** The system for impact indicators includes the following:
- Isu-isu yang dinilai (Issues to be evaluated)
- Methodologi (Methodology)

7.7 Finding data

532. All GRB and similar work requires relevant statistics and other related information. Other parts of this guide have described the use of information about time use. Time use surveys are usually the best source of information on unpaid household production. However, the absence of such information does not prevent household production budget work.

533. All countries probably have some statistics available, and the efforts to prepare a GRB can, in fact, encourage the production of better statistics. The South African example from the Department of Water Affairs and Forestry in this section provides estimates of the participation of women in a range of activities related to the water schemes. The estimates were published in the 1998 budget. The following year the Department provided estimates that were very different. When this was queried, a departmental official explained that the previous year’s estimates had been thumb sucks, as they did not have the necessary data at the time. However, the GRB initiative had alerted them to the importance of collecting gender-disaggregated information and they had therefore set up systems to do so. The estimates for the second year were thus more accurate.

534. There is a range of sources beyond time use surveys that can be useful. In particular, labour force and general household surveys usually provide information on the economic activity of all (adult) household members. Often the information about work in subsistence production and other informal sector work is less reliable and comprehensive than information about formal waged work. Again, however, exercises that use the results from such surveys for GRB estimates might highlight the weaknesses and encourage improvements.

535. General household surveys usually include information such as access to, and use of, water and different fuel sources as well as other household and social services. These are
useful for determining both the needs in respect of unpaid care work and impact of past programmes and policies.

536. Child labour surveys are useful for showing the activities of younger people in household production.

7.8 Beyond budget day and the budget documents

537. Gender budget statements are usually tabled with the other budget documents on budget day. Both the budget itself and these statements are the outcome of a long process. Theoretically, the budget is tabled in parliament for discussion and only becomes law once voted on by parliament. In practice, parliaments rarely make changes to the budget. Often they do not have the power to do so. Where they have the power, they often do not use it. For effective democracy, advocating for greater influence over the budget by elected representatives is important. This could be a long struggle. Meanwhile it is important that budget initiatives try to engage as early as possible prior to budget day if they are to have impact.

538. Tanzania is among the countries that have gone furthest in taking GRB work into a range of budget-associated processes. GRB work in Tanzania started in 1997, when the Tanzania Gender Networking Programme, a non-governmental organisation (NGO), formed an alliance with other NGOs to establish the Gender Budget Initiative. About a year later, inspired by this example, the Tanzanian government itself embarked on GRB work. A year or two later, the Ministry of Finance engaged TGNP as consultants to assist it with its GRB work.

539. TGNP was asked, in particular, to assist four pilot ministries in mainstreaming gender into their MTEFs. Tanzania does not have a fully-fledged PPB approach to budgeting. Nevertheless, the MTEF planning approach considers overall goals and objectives, situation analysis and setting of targets. All of these provide opportunities for including gender and other considerations and monitoring implementation.

540. TGNP compiled a checklist of issues to consider in each step of the process that ministries used for drawing up MTEFs (Rusimbi et al, 2000). The organisation then provided training and backstopping to the four pilot ministries to assist them in using the checklist. The box summarises the contents of the checklist. The checklist could fairly easily be adapted to ensure that considerations relating to the different types of household production are taken into account.

Steps for mainstreaming gender into a Ministry’s MTEF

- Step one: Analysis of national goals and policies from a gender perspective (i.e. what will the impact be on gender gaps?)
- Step two: Sectoral environmental scan with a gender perspective (strength-weaknesses-opportunities-threats analysis to highlight factors which will help or hinder initiatives to address gender equality concerns)
- Step three: Stakeholders’ analysis from a gender perspective (ensuring that grassroots women are included among the stakeholders)
- Step four: Develop/preview Ministry’s visions and missions (Do the core values focus only on efficiency? Do they include equity and equality perspectives?)
• Step five: Setting the Ministry’s objectives with a gender perspective (Check if specific gender objectives necessary; look at ranking of objectives; ensure both efficiency and other considerations)

• Step six: Setting targets for the Ministry with a gender perspective (quantitative and qualitative targets as the basis for monitoring and evaluation of progress and impact)

Source: Adapted from Forum for Women in Democracy, 2003

541. The Tanzanian government’s GRB work has focused on four ministries. The Planning Commission has, however, also included a paragraph in the budget call circular, which goes out to all agencies asking that they consider gender-related issues when determining their needs and motivating for them.

542. TGNP has also engaged in other budget-related processes. It participates in meetings of the group that plans and overseas the annual public expenditure reviews (PERs). It has also provided experts to contribute the gender perspective in particular studies, such as the study on revenue carried out in 2003 and a water sector study in 2004.

543. TGNP has tried to raise the awareness of government of the importance of incorporating gender into its macro-economic modelling. Largely as a result of pressure from TGNP, the social accounting matrix (SAM) recently developed by government together with the International Food Policy Research Institute and others disaggregates the labour factors by both sex and level of production. It also includes a factor (not disaggregated) for subsistence production. The National Bureau of Statistics has agreed to include a time use module in the labour force survey of 2005. This will provide the possibility of including the care sector in future versions of the SAM. In the mean time TGNP commissioned a study that used the SAM to simulate the impact of a range of policy changes on women and men and rural and urban households at different poverty levels.

544. TGNP and actors in other countries, such as Kenya and Uganda, have also linked gender budget work with their advocacy around the poverty reduction strategy papers. This is an important link because the PRS paper sets the priorities for the country, which should then determine the direction of spending. Health and Education are always among the priority sectors. Also common are sectors such as water and transport/roads. In the latter, in particular, there are a range of unpaid care and household production-related issues. These issues might not, however, always be seen by government planners unless their attention is drawn to them. This might therefore also be a useful arena for budget work around household production.

7.9 Participation in the budget process

545. The previous section discusses how GRB actors in Tanzania, Kenya and Uganda have got involved in various stages or processes related to the budget. Many NGO GRB initiatives have, in fact, begun by researching the budget process to determine at which points they can most effectively intervene.

546. This research generally confirms two things. Firstly, most work involved in compiling a budget happens within the government bureaucracy. Secondly, virtually all this work is done before the tabling of the budget.

547. Some of the research has, however, also revealed that there are informal processes in which government consults, or is lobbied by, various actors. In addition to influence by
donors and the multilateral institutions, government often consults or is lobbied by the private sector. The representatives of the private sector rarely, if ever, include representatives of household producers. Usually it is done through bodies such as the Chamber of Commerce or Industry. One possible area of activity is therefore to explore ways in which the voices of different types of household producers can be ‘heard’ in the earlier stages of the budget process.

548. The World Bank and International Monetary Fund require that the process of drawing up PRS papers includes public participation. Some governments – especially at local level – have introduced public participation elements to their budget processes. The question for us would be whether the way the public participation is structured allows for – or encourages – the voices of household producers to be heard.

7.10 Avoiding over-simplification

549. The main aim of this module is to show the possibilities of GRB-type approaches. We also hope to show that using these approaches is not difficult. Nevertheless, there is a danger of over-simplification.

550. In ORBs, over-simplification often takes the form of conceiving the challenge as being to ensure that the budget is ‘good for women’. This approach assumes that all women are the same, and therefore have the same needs and interests. This is clearly not true. Such an approach in fact contradicts one of the main reasons why ORBs are necessary – to end an assumption that all citizens are the same, and therefore have the same needs and interests.

551. Budget work on household production must also avoid assuming that all forms of household production, and all household producers, will be harmed or helped by similar policies, programmes and budgets. Household production is diverse – and so are the needs of producers. In some cases, there may be a direct conflict between the interests of two household producers. We can take the example of an employer (female) of a domestic worker (female). If the government establishes a minimum wage for domestic workers, and allocates resources to enforce it, we can say that the policy and budget are sensitive to the needs and interests of the domestic worker, who is part of the third component of household production. However, the policy and budget might have negative effects for the employer. On the one hand, she might be forced to spend more for the services. On the other hand, she might be forced to do more of the work herself. If the second result happens, the woman – as an unpaid reproductive worker – will be disadvantaged in terms of her burden of work.

552. In some cases, the interests of different household producers need not necessarily conflict. Nevertheless, particular programmes and the associated allocations will be helpful to some, and irrelevant for others. This is illustrated in the following extract of a summary report prepared for local government in Durban in South Africa.

553. In the later 1990s Durban local government recognised the importance of the informal economy if it was to address poverty and promote development in the area. It therefore set up a task team and commissioned studies on different aspects of the informal economy. The aim of the task team was to integrate (mainstream) the informal economy into overall economic policy. The extract below is from a study of how the local government’s budget did, or could, address the needs of informal economy workers. In recognition of the diversity of the informal economy, it starts with pen-sketches of a range of informal economy workers, and
speculates what they might want from local government. The speculations are specific to South Africa to the extent that they match the functions assigned to this level of government in the country. (There are three levels of government in South Africa). In other countries, the possible ways in which local government could address the needs of these workers would differ if the assigned functions were different.

**Budgeting for informal economy workers in Durban, South Africa**

Different sectors of the informal economy have different incomes; different potential for growth; differences in how easy it is to start doing the activity; different relations with formal business; different conditions for forming organisations and associations; and different demographic (race, gender, location) characteristics. Because of all these differences, they also have different needs.

The following examples do not cover all types of workers, but they give some idea of the role of local government. For each type, we show the service unit and departments that could help them. Sometimes we see that metro rather than the local council is responsible. With other functions, the province or national is responsible.

A home-based worker on contract to the leather industry might want:
- Electricity to work late at night, to work efficiently – supplied by metro;
- Water to allow easy cleanliness – supplied by metro;
- Zoning which permits this type of work in a residential area – Development Planning department of the Development and Planning service unit;
- Public transport for easy transport of raw materials and finished products – Traffic and Transportation department of the City Engineer service unit;
- Housing within easy access of industrial areas – Housing Department of Corporate Services unit for rental housing; other housing is supplied by metro or the province.

A home-based childcare worker might ask for:
- Health regulations which are not too difficult, and simple material which explains the requirements – Health department of the Corporate Services unit;
- Water to facilitate hygiene and promote efficiency – supplied by metro;
- Electricity to allow efficient, quick and safe preparation of food – supplied by metro;
- Traffic control to promote safety of children – Traffic and Transportation department of City Engineer service unit;
- Public transport for easy access of customers – Traffic and Transportation department of City Engineer service unit, as well as metro.

A home-based worker, self-employed, producing cooked food for sale in the neighbourhood might ask for:
- Health regulations which are not too onerous, and simple material which explains the requirements – Health department of the Corporate Services unit;
- Water to facilitate hygiene and promote efficiency – supplied by metro;
- Electricity to allow efficient, quick and safe preparation – supplied by metro;
- Cheap, accessible markets where raw materials can be obtained – Development Facilitation department of the Development and Planning service unit.

Workers in local construction, who are small, black self-employed operators might ask for:
- Tender regulations and practices that promote small, black businesses – Architectural Department of City Engineer service unit.

**7.11 Thinking about expenditure**

554. As noted above, there has been far more GRB work on the expenditure side of the budget than on the revenue side. At heart, though, the question on the revenue side remains the same as on the expenditure side: How does a particular revenue measure promote or hinder gender equality?
555. If we are interested in household production, as usual we want to look at both the visible and the invisible revenue streams. At the visible level, we would be interested, for example, in the user charges that are levied on water and electricity. In most African countries, there is widespread awareness of the importance of making safe water available to households, and of avoiding the need for households to have to collect fuel. Sometimes, however, the awareness does not recognise that access involves not only the creation of water schemes and electricity grids, but also affordability of use of the water and energy.

556. If user fees are too high, women and children will still have no choice but to spend energy and time collecting water and fuel as in the past. The choice is not simply between having or not having user fees. There is a range of ways in which user fees can be structured that make covering basic needs more affordable. For example, in some countries, a basic minimum is provided free and this subsidy is financed by higher unit charges on large users. This approach would assist those responsible for collecting fuel and water. It might be of less assistance to household producers such as hairdressers and subsistence agriculturalists who need larger quantities of water for their income-generation activities.

557. At the invisible level, Ingrid Palmer has suggested that unpaid care work can be understood as a 'reproductive tax' that women pay before engaging in market-related economic activity (Quoted in Bøkker, 1994: 5). Thus while men tend to pay more personal income tax than women, women contribute more than men through their unpaid care work. Other modules of this manual suggest how this contribution could be valued for use in advocating for ways of lowering the invisible tax.

7.12 Costs and benefits

558. A lot of GRB work involves comparing costs and benefits of particular government policies and programmes and to whom these accrue. Previous sections of this module have pointed out that particular policies may benefit one group of household producers but impose costs on others. As so often, this raises questions about prioritisation of needs.

559. There are, however, also times when analysis of budgets from the viewpoint of household production will reveal ways in which there are multiple benefits that are not being acknowledged. For example, when speaking about household access to safe water, discussion usually focuses on the health benefits this will bring as well as the reduction in time spent collecting water and fuel. We hear less often about the way in which access to water will assist with informal production in the home.

560. A second example involves childcare. Discussions around provision of early childhood education and care usually point out how this will reduce repetition in the first years of school by preparing young children from deprived backgrounds for schooling. The discussions also sometimes note that provision of childcare could 'free' their mothers and older sisters up for income-generation or continuing with their own schooling. The discussions seldom point to the job creation proposal that larger-scale childcare schemes provide for less educated women. (Indeed, sometimes the ways in which the childcare is set up provides jobs at such low pay that the benefit is small.) Revealing these benefits and interlinkages can help in advocacy for measures that benefit household producers.

561. At the macro level, most governments are concerned to reduce the budget deficit to low levels. They argue that having a budget deficit of more than a few percentage points is
unsustainable'. If, however, cutting back on social services contains the budget deficit, the strategy might be self-defeating. For example, if health services provide inadequate services because of the cutbacks, it is likely to impose an extra burden of unpaid care work on women caregivers in the home. This will reduce the time that women have available for income-generating work. This, in turn, will limit economic growth, and thus the potential for more revenue and reduction of deficit in the future. Being alert to these issues can avoid 'false economies'.

Conclusion

562. We do not know of any work to date that explicitly looks at the impact of budgets on household production. However, some GRB initiatives have implicitly looked at household production and budgets. And there are enough overlaps between GRB work and the concerns that those interested in household production would have to be confident that lessons could be learnt from GRB experience.

563. Nevertheless, even GRB work is a relatively new area of research and action. This module should therefore not be seen as providing fixed models or 'tools'. Instead, it offers ideas to stimulate creative thinking about possible ways of looking at budgets and household production.

564. The methods discussed in this module have implicitly shown that this type of work cannot rely only on the skills of economists and statisticians. At the least, seeing what is often invisible to policy and budget makers also requires gender analysis skills, knowledge of the situation of the (poor) women and men in the country, and the imagination to see how things could be different. At the same time, examining household production from a budget angle allows us to move beyond discussing unpaid labour and household production as theoretical constructs to looking at what governments can do to address the specific problems which household producers currently face.
Annex 1

REFERENCES

Introductory Notes

References in this Guidebook are listed under the different modules in which they are cited. The idea of duplicating some references in this way is to allow users interested in a particular module, for example, “National Time Accounts and Satellite Accounts of Household Production”, to readily identify all the references made in this module.

The 1993 SNA, on which the conceptual framework of this ERG is based is provided in the first part of the references under General. The list also includes some references that are not specifically cited in the ERG but that provide useful background material or elaboration of the text.

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