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A Guidebook for Integrating Household Production into National Poverty Reduction Policies in Africa

An Overview

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Abbreviations and Acronyms

BPA:	Beijing Platform for Action
CGE:	Computable General Equilibrium
ECA:	Economic Commission for Africa
ESCAP:	Economic Commission for Asia and the Pacific
GDP:	Gross Domestic Product
GEP:	Gross Economic Product
GHP:	Gross Household Product
GMP:	Gross Market Product
GNP:	Gross National Product
GRB:	Gender Responsive Budgets
GSB:	Gender Sensitive Budgets
HP:	Household Production
ICLS:	International Conference of Labour Statisticians
ILO:	International Labour Organization
MDGs:	Millennium Development Goals
MTEF:	Medium-term Expenditure Framework
NTA	National Time Accounts
NANB:	National Accounts and National Budgets
NEPAD:	New Partnership for Africa's Development
NGO:	Non-governmental Organization
NAHP:	National Accounts of Household Production
NMW:	Non-market Work
OECD:	Organization for Economic Co-operation and Development
PRS:	Poverty Reduction Strategies
SAPs:	Structural Adjustment Programmes
SNA:	System of National Accounts
SAM:	Social Accounting Matrix
TUS:	Time-use Studies
UNDP:	United Nations Development Programme
UNSD:	United Nations Statistics Division
VAR:	Vector Autoregressive

Summary

This paper aims to give an overview of a “*Guidebook for Integrating Household Production into National Poverty Reduction Policies in Africa*”. The Guidebook, which is Africa-specific has been prepared by the United Nations Economic Commission for Africa (UNECA), as a compendium of concepts, tools and methodologies used in collection, analysis and integration of gender disaggregated data on household production and services (HPS) into national poverty reduction strategies (PRS) in Africa. Its overall goal is to build the capacities of national statisticians, national accountants, and policy analysts to use National Accounts and National Budget as entry points to integrate HPS into PRS. African women perform most of the labour in households, but constitute about 80% of the nearly 300 million people surviving on less than \$1 per day and their contribution is not adequately covered in official statistics.

Presently available economic and social statistics used in research and policy making to help understand, evaluate and monitor systems, policies and people in African countries are vastly incomplete. For example, 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 2003). The Guidebook addresses this invisibility of HPS.

The Guidebook is divided into 7 parts: the introduction and 6 modules to allow them to be read separately by different types of users. The introduction outlines what the Guidebook is about, why it is Africa-specific and who its users are.

Module 1: summarizes conceptual framework on the household economy based on the 1993 UN System of National Accounts (SNA), on which the Guidebook is based.

Module 2: details two interrelated methods for household time use studies (TUS) to generate gender disaggregated data: (i) detailed nation-wide dairy-based surveys to establish benchmark figures at five-yearly intervals; and (ii) continuous sample measurement of the uses of time yearly or quarterly, to update the estimates of the nation-wide surveys in order to understand the short term dynamics between the household economy and the market economy over the fluctuations of the business cycle.

Module 3: focuses on methods for preparing *National Time Accounts (NTA)* and imputing values on non-market work (NMW) along with estimates of subsistence and informal production to generate *Satellite Accounts of Household Production (SAHP)*. It describes NTA as 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. And that 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 SAHP to be prepared. It also describes SAHP, which belongs to the family of satellite accounts described by the 1993 SNA as accounting statements that are separate from, but conceptually consistent, with the core national accounts.

Module 4: provides guidelines on policy options on HPS.

Module 5: introduces gender-aware macroeconomic modeling to evaluate impacts of policies on poverty reduction.

Module 6: outlines the guidelines for integrating HP into national budget.

What is the Guidebook About?

Scope of the Guidebook

The conceptual framework for the Guidebook is that of the 1993 UN System of National Accounts (1993 SNA) produced by five international organizations (Commission of European Communities *et al.*, 1993). So the scope of the Guidebook is economic production as defined by the 1993 SNA. While this provides a firm basis, it restricts a range of “work”, especially NMW, which is not included in the 1993 SNA.

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

Goal and Aims of the Guidebook

The overall goal of the Guidebook is to build the capacities of national statisticians, national accountants, policy analysts, and development advocates in Africa in the collection, analysis and integration of time-use data and statistics on HPS into PRS.

As also a training document, building the capacity of national experts and advocacy in this regard is a top priority of the Guidebook. In this context, the Guidebook is a compendium of methodologies and tools to integrate Household Production (HP) into national poverty reduction policies based on Time-use studies (TUS), National Accounts and National Budget (NANB) as entry points. Specifically, the Guidebook aims to assist national experts by providing them with practical hands-on guidelines to:

- Establish a conceptual framework to support the measurement of HP;
- Plan and conduct TUS either as comprehensive national surveys as benchmarks, or yearly or quarterly surveys of households to generate, analyze and use gender disaggregated data and statistics for integrating HP in national policies;
- Analyze the status and contribution of women broadly to include women's non-market production within and outside the SNA and informal sector production;
- Prepare NTA and SAHP as a database and tool for advocacy to assist policy makers generate policy options to address HP and poverty reduction issues;
- Evaluate impacts of policies on poverty reduction and welfare;
- Introduce Gender Responsive Budgeting as a key feature of good governance to ensure that public expenditure priorities are consistent with development policies;

Based on the Guidebook, ECA in collaboration with its stakeholders would come up with more detailed documents specific to each of the six modules that could not be included in the Guidebook. These documents would include:

- A handbook on NTA and SAHP;

- A handbook on gender-aware modeling for policy evaluation; and
- A resource kit and training materials on the six modules of the Guidebook.

Why an Africa-specific Guidebook?

Given the relatively new areas covered in the Guidebook, the need for an “Africa-specific Guidebook is urgent to address the continent’s unique problems relating to collecting and analyzing data on the currently non-observed household economy. The following compelling reasons justify the need for an Africa-specific Guidebook:

- Concepts, methods and tools on integration of HP in national accounts and national budget (NANB), preparation of NTA and SAHP as well as formulation, monitoring and evaluation of policies on poverty reduction in the Guidebook are relatively. Hence, the need to tailor these tools to the needs of the continent.
- Available gender disaggregated data are mostly information on labour market employment, and are not collected in any systematic manner because of lack of prioritization in data collection and analysis.
- Time-use studies in Africa are still on trial basis and limited to few African countries largely due to lack of tools and difficulties in measuring time in a rural population not used to “clock time” nor experienced with filling questionnaire.
- The available concept and methodologies employed in time-use surveys are mostly based on those of developed countries and as such are not tailored to address the unique objectives for time-use studies and valuation of HP in Africa. Thus, the Guidebook acknowledges the differences in illiteracy and HP that African countries have as compared to developed countries.
- The procedures for conducting the different surveys including that for the recent time-use studies in Africa are not standardized as to allow inter country and intra country comparisons. The need for standardizing gender disaggregated 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), which are shaping Africa’s development paths.
- During an inventory by ECA in 2002, African countries expressed keen interest to carry out time-use surveys based on a standard guidebook for conducting time-use survey for all African countries, which will 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 NANB.
- The inventory further revealed that no African country currently has developed or uses gender-aware model for evaluating impacts of policies on the productivity of household economy and 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.

Who are the Users of this Guidebook?

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 Guidebook attempts to answer these questions.

The Guidebook 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. The Guidebook will also show that sound data collection is crucial to policy formulation and to public action.
- Policy analysts will find both the NTA and SAHP in the Guidebook 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 good-quality national accounts, which try to cover all levels of economic production including value added as a result of introducing the SAHP.
- The Guidebook will be designed to enable these target groups to use or adopt training materials from the modules for use by national training teams.

How the Guidebook is organized

The Guidebook introduces the context of the issues and concerns related to household production and services. It is organized in six modules and different types of users may wish to focus their attention on different modules. Survey statisticians may find interesting material in all modules - some modules providing guidance on good data collection and practices, others describing how the data are used to prepare NTA and SAHP. Still other modules provide guidelines on policy options and advocacy on HP; gender-aware macroeconomic modeling to evaluate impacts of policies on poverty reduction; and integrating HP into national budget.

MODULE 1

The Concepts of Household Production

The aims of the module are:

- Understand households, household production (HP), and the household economy
- Introduce concepts of Household Production and services (HPS)
- Understand reasons for excluding non-market work (NMW) and opportunities for including it through national satellite accounts of household production and national budgets
- Understand the status and trend in measuring and valuation of NMW
- Understand the rationale for measuring, valuation and integrating NMW into national planning instruments
- Understand the rationale for engendering national accounts of the household sector.

Overview

Module 1 provides a conceptual framework on households and household economy based on the 1993 UN System of National Accounts (SNA), on which the rest of the Guidebook is based. The module describes the concepts, definitions, and accounting rules of the 1993 SNA to enable HPS to be systematically defined and analyzed in Module 3.

Definitions and Concepts

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).

Household production: The term is used to refer to goods and services produced within the household by its members by combining their unpaid labour with purchases of durable and non-durable consumption goods (OECD 1995). The household uses this output without undergoing a market transaction. Hence it is called household non-market production and includes: unpaid, informal help to other households, and own-capital formation (e.g. own-account construction of houses).

System of National Accounts (SNA) household production: is part of the above-mentioned production that is included in the national accounts because it is included within the SNA general production boundary, see Module 3).

Non-SNA household production: is the part of it that is excluded from national accounts (but is within the general production boundary).

Households are characterized by three categories of work: (i) non-market; (ii) subsistence production; and (iii) informal. In sub-Saharan Africa, women comprise 60 per cent of the

informal sector (including informal trade), provide about 70 per cent of the total agricultural labour, and produce about 90 per cent of the food. Households also have the crucial responsibility for making decisions related to savings and investment, education, migration, and labour that affect a country's level of economic performance. Yet, women lack equal access to health, education, finance and other essential resources.

The process of household production involves 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 labor (hours spent in shopping, cooking, laundry and ironing). The total economic value added by households in household production has been aptly named **Gross Household Product (GHP)** (Eisner, 1989; Ironmonger, 1996).

The household economy: describes the collective economic activities of households. Often the household economy is called the household sector as distinct from the business, government and foreign sectors. 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 labor time by the household and the sale of household goods and services by the market.

Households as Producers: With few exceptions, economic textbooks focus on households as consumers and fail to discuss households as producers using their own labor and capital. Households are presented to the modern student of economics at school or university as places of consumption. Economics theory focuses on consumer behavior, 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.

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".

Reid is regarded as the first writer to specify the often-used *third person criterion* to distinguish between productive and nonproductive (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.

A further problem is that production almost always requires a contribution from capital as well as from labor. The 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.

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." Unfortunately both Gilman and Reid had little impact on mainstream economic thinking about household production. Economic theory continued to portray households as places only of consumption and leisure, with production of goods and services occurring only in business or public enterprises.

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

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 new commodities and their usefulness in household production processes.

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 modeling household production.

Recognition of women's non-market work

This is a matter of social justice and relates to human rights. Women – and more generally all those who carry out unpaid work and are not accounted for – are considered for this reason as second-class citizens. They lack paid work, which gives identity and citizenship to individuals. Their obligations towards the society are not looked at as fulfilled, which leads the society to exclude them from public responsibilities, to deny them the rights of citizens and in particular the entitlement to the socio-economic rights that are recognized by international and regional conventions. These rights include, access to and control on economic resources (access to property, to inheritance, to sharing of acquisitions during marital life, etc.). Also the adoption of measures for recognizing women's invisible work is a step towards gender equality and the real entitlement to their fundamental rights.

Importance of measuring household economy

In the 1970s a number of writers drew attention to the macroeconomic magnitude of the household economy. Boulding (1972) conceptualized 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.

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).

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 labor helps drive these technology and policy changes.

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 policies 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.

Deficiencies in the National Statistics of Work and Production

During the last half-century an almost unrecognized statistical revolution has taken place. At its heart has been the System of National Accounts (SNA), which have 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.

With few exceptions, the national statistics of work and production continue to ignore the unpaid labor 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.

Discussion of public issues such as gender equality, labor 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.

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.

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.

MODULE 2

Household Time Use Studies: Concepts and Practices

Aims of the Module

- Understand the concepts and practices in household time-use studies
- Understand objectives of time-use studies
- Provide an Africa-specific guide to methodologies and approaches for collecting time-use data in independent surveys or as part of other surveys.

Overview

Module 2 details two interrelated methods for household time use studies (TUS) to generate gender-disaggregated data:

- detailed nation-wide dairy-based surveys to establish benchmark figures at five-yearly intervals; and
- continuous sample measurement of the uses of time yearly or quarterly.

Nation-wide Time Use Surveys

It is recently that nation-wide surveys (TUS) on time-use 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 NMW and help implement the 1993 SNA (Ironmonger, 1996:38).

Thus, since 1995, time-use studies 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 study 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 realized that national time-use studies are an important statistical tool for the measurement and valuation of market and non-market work.

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 OECD report (OECD, 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.

As for developing countries, time-use surveys are an invaluable tool to help us understand more about how NMW 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).

Continuous sample household surveys

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.¹ 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 in order 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 (i.e., June statistics available by the end of September and December statistics by the end of March, etc.).

What are Time-use Statistics?

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 systematically be described using a classification of activities such as the UN Draft International Classification of Activities for Time-Use Statistics (ICATUS).

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.

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 statistics pertain to a reference population (e.g. 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 analyzing the statistics.

¹ To give some order of magnitude, a national sample survey of 5,000 households might cost approximately \$US100,000. 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 various reasons.

What are the Development Objectives of Time-use Studies?

While the TUS surveys 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 (SAHP)*. 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 SAHP to be prepared.

SAHP 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.

Time-use surveys are invaluable in helping us to understand more about NMW and household production at large. Measures of time-use are measures of “human capital”. 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 work.

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 emphasized 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.

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 characterization 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.

What are the Components of a Time-use Survey?

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 stylized analogue
- Mode of data collection – whether by interview, self-reporting or observation;
- Type of household survey – whether as an independent or “stand-alone” survey or as a component or module of a multi-purpose survey.

Module 3

Guide to Preparation of National Time Accounts and National Satellite Accounts of Household Production (SAHP)

Aims of the Module

- Understand what National Time Accounts (NTA) and SAHP are and how they are linked to national accounts
- Provide methods for preparing NTA and estimating the contribution of NMW to Gross Household Product (GHP)
- Provide guidelines for constructing SAHP

Overview

Module 3 focuses on methods for:

- preparing *National Time Accounts (NTA)*;
- imputing values on non-market work (NMW) along with estimates of subsistence and informal production to generate *Satellite Accounts of Household Production (SAHP)*.

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 35-55% in developing countries (ECA, 2004). 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.

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.

National Time Accounts

What are National Time Accounts?

National time accounts 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.

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 national time accounts aggregates National Time Accounts (NTA) 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.

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. It is my hypothesis that through the business cycle, total work time is more stable than either the paid or the unpaid component.

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).

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 SAHP.

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 SAHP, which the latest revision of the SNA recommends national statistical offices should develop.

Methods of Valuation of Non-market Work

Three methods can be used to value NMW in 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.

Output-based Method

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 method is preferred in national accounts and 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.

Input-based method using the market replacement cost

To value non-SNA activities based on wages, the common approaches are:

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

Opportunity cost method: This relates to the cost of wages forgone 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 for the NMW based on the forgone income of the unpaid household member had this member opted to provide labour services in the market.

Replacement cost (specialist): This approach uses the wage paid to a person who produces similar services in the market (i.e. wage = wage rate * time spent). It is applied to specific household own-account services. For example, cooking would be valued at 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 these occupations are found in the market.

The replacement cost (generalist) approach: This approach values the HP by the equivalent wages of paid domestic help (i.e. wage = wage rate * time spent). The wage depends mostly on the labour market situation in the countries. 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.

Satellite Accounts of Household Production (SAHP)

What is a satellite account of household production (SAHP)?

SAHP is a set of accounts developed as an expanded version of the Household Sector of the 1993 SNA. It follows the general structure of the SNA but includes other transactions that are outside the SNA but still connected with the household economic activities. The SNA generally recognizes that household production is a part of economic activity.

However, SAHP 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.

The Purpose of Satellite Accounts of Household Production (SAHP)

The aim of the SAHP 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.

The main purpose of the SAHP as outlined in the introduction of this report 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 Prof. Ironmonger named **Gross Market Product (GMP)** (Ironmonger 1998).

The SAHP is based on the expansion of the SNA production boundary to include all non-market household production. The SAHP focuses first on the non-SNA part. It then proceeds to integrate it with the core national accounts, thus extending the coverage of production activities. The sum of SNA and non-SNA household production is referred to as "extended production" (the term used by Goldschmidt-Clermont 1995).

SAHP presents 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 analyze the extended economy.

Examples of analyses that can be done with SAHP

- 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 (e.g. 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.

Figure 1: Satellite Accounts of Household Production

1. NON-MARKET PRODUCTION OUTSIDE SNA

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).

Non-SNA production 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).

2. NON MARKET PRODUCTION WITHIN SNA

SNA Household production of goods for own final use

- 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, baskets and mats).
- Other kinds of processing (weaving cloth, dress making and tailoring, the production of footwear, the production of pottery, furniture etc.).

SNA Household production of services for own final use:

- paid domestic services;
- production of housing services for own final consumption by owner-occupiers (imputed rents).

3. MARKET PRODUCTION WITHIN SNA

Production of goods and services by unincorporated enterprises owned by the households:

- Mainly informal sector enterprises.

Figure 2: Guide to Building a National 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. And the GLSS in Ghana can also provide results that may be sufficient for the elaboration of a SAHP (the Nigerian survey was a pilot survey on a small sample).

- In each of these 4 countries, the detailed list of extended SNA 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).
- A 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 survey results or/and enterprise surveys or administrative records.
- 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.
- Based on the levels of details for each of these three lists, some groupings of the activities must be operated in order 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).
- Then has to be decided which wage rate will be applied and imputed to which activity in order 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.
- 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, which requires many assumptions. It is quite a complex procedure: for instance cereals purchased or self-consumed by a household will constitute (for 100%) 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. The entire process of national accounting must be redone for household production.
- 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 of depreciation.
- Taxes on housing, on cars, all taxes on production (except VAT) must also be distributed between extended SNA 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.
- For all the preceding steps, imputation by sex is made on the basis of time-use.
- The sequence of production and generation of income accounts for household production can then be reconstituted and compared with total GDP.

MODULE 4:

Guide to Policy Options and Advocacy on Household Production

Aims of the Module

- Understand the implications of integrating household production and services (HPS) into national policies
- Demonstrate the application of statistics on HPS in national accounts systems
- Identify policy options, responses and advocacy channels to promote equal opportunities by integrating HPS in development process
- Improve skills of statisticians, national accountants and policy analysts in communicating policy recommendations to decision-makers

Overview

Module 4 discusses the integration of market and HPS in national policies through mainstreaming in:

- National statistics system
- Labour market and employment policies
- Policies of social welfare and social protection
- Macroeconomic policies.

Integrating HPS into national statistics system

Inadequate counting of HPS in Statistical system

The module discusses the omission of HPS from official statistics as providing only a partial picture of the total economy or society. Since HPS includes NMW production, subsistence production and informal sector production, the exclusion of these sectors, where women predominate have serious negative impacts on women. Women are thereby denied of time and opportunities to develop themselves and build their own human capital. Furthermore, people can be poor in terms of *time* as well as *money*. Women, especially in rural areas, are subject to heavy time burdens due to their need to balance the demands of their productive, social, reproductive, and community management roles. When women are overburdened at the household level, lower productivity and increased production costs are manifested both in the household and market economies. Time burdens are considered serious causes of poverty.

Policy implications of integrating HPS in official statistics

The gender-disaggregated hours of work statistics derived from time use surveys would correct the distorted view of the work that is usually presented from the census of population where heads are counted according to a priority ranking that puts paid work ahead of 'village

'work' and both of these ahead of child care, 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 and 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.

Official recognition of HPS including 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 – the *gross household product (GHP)*, which can be logically compared across nations, regardless of the extent of market orientation. Such reforms should include:

- Standardization of concepts and definitions;
- Adoption of the revised UN activity classification for TUS;
- Adoption of national satellite accounts of Household Production;
- Continuous or periodic conduct of time use surveys and
- Adoption of a standard methodology for valuation, labor force surveys and time use surveys would probably have to be harmonized to ensure data complementarity and meaningfulness of interpretation.

Another urgent need is to generate the basic statistical information and economic models needed to do the job of leading Africa to a better future. African countries need to put together the expertise and resources in their official statistical organizations to obtain regular, up-to-date information on what is occurring in African households. Official recognition of household production and services, implies reforms in the national statistical system to ensure expanded enumeration and valuation of unpaid work

On the basis of data from these regular surveys, African statistical organizations would have a greatly improved base for their estimates of the Gross National Income (GNI) and the Gross National and Domestic Products (GNP and GDP). These new and more accurate figures of the complete economic system, together with household survey data, would greatly enable improved modelling and forecasting of African economies.

In the emerging studies on valuation of market and NMW, 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.

Integration of HPS in National Policies

Improving women's well-being and quality of life

The integration of market and HPS in national policies can be done through mainstreaming in policy strategies for the enhancement of women's well-being and quality of life, time use 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. People can be poor in terms of time as well as money and definitions of poverty need to consider this as women have overlapping activities.

Official recognition by governments of the value of HPS could enhance women's economic security in several ways:

- Tax credits for individuals caring 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 enabling them to contribute to pension plans and access other government programs - job training and social security benefits.
- Governments could encourage the banking sector to recognize NMW as collateral for loans, thereby enable unpaid workers to move into micro/small-business.
- Measures that would reduce women's time burden should be introduced by establishing community-based child-care centers or elderly centers.

Integrating HPS into macroeconomic policies

Gender bias in macroeconomic policies is still prevalent in African countries. As a result of government cutbacks in education, health and social services as part of economic restructuring and adjustment, unpaid work of care providers, especially of female household members, could intensify. This may have the long-term effect of reducing the capacity of individuals to work in the market and thus to pay taxes, and by 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.

Policy measures to reduce gender bias, he said 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 should promote redistribution of household work more equally between men and women. Public sector policy should ensure that women's paid work is valued equally to that of men's.

The following macroeconomic issues, which need policy intervention for recognizing exhaustive counting of economic activities including HP in the SNA: 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 NMW to adjust to economic crisis, time input effects of budget cuts, privatization of social services; Growth, inequity, human development; Savings and investment; Trade Strategies; and Governance (transparency and accountability).

MODULE 5

Guide to Gender-Aware Macroeconomic and Microeconomic Modeling to Evaluate Impacts of Policies on Poverty Reduction and Welfare

Aims of the Module

- Introduce prerequisites for effective evaluation of impacts of economic policy reforms on non-market work and poverty reduction.
- Introduce qualitative and quantitative tools for evaluating impacts of policies on non-market work and poverty reduction
- Provide guidelines for selecting, constructing and applying a gender-aware macroeconomic model for evaluating impacts of policies on non-market work and poverty reduction.

Overview

Module 5 discusses the problems faced by African countries in terms of external shocks resulting among others from policy reforms. It then discusses potential qualitative and quantitative methods for evaluating impacts of policies on poverty reduction and welfare. The module then provides procedures for building a gender-aware macroeconomic model.

Lack of tools for evaluating impacts of policies

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 policy reforms such as structural adjustment programmes (SAPs) 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.

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 Operationalisable 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 a, monitoring and evaluation. 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.

Qualitative and Quantitative Methods for Evaluating Impacts of Policies

Qualitative approach

Qualitative approach attempts 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.

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. Thus, such studies in spite of being very valuable for in-depth understanding have strong limitations.

Quantitative approach

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.

Computable general equilibrium (CGE) model

The module focuses on computable general equilibrium (CGE) models, which are macroeconomy wide models and are multi-agent, multi-commodity models. Such models have the advantage of responding to shocks while fulfilling the conditions of optimality of agents' behaviour, technological feasibility and resource constraints. General equilibrium analysis has a strong theoretical grounding. In the 1970s there were major advances in solution techniques that permitted application of general equilibrium models to actual data sets. With improvement in data collection and advances in computer technology and software, this has been increasingly used as an advanced methodology of applied policy work. The applied models are treated as representation of reality. Economic theories form the basis to such models, namely, optimization behaviour, budget balance and market clearing.

It is useful to use a multisectoral-modeling 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.

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.

Microsimulation

A second approach would be to integrate individual data directly in the general equilibrium model according to the principles of micro simulations. This treatment provides a more reliable picture of income distribution but is also more complex.

We must appreciate that 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.

How to build a gender-aware CGE model: A Case for ECA

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. The modeler introducing the gender-aware CGE model in the country will provide these.

Step 1: We quantify NMW so as to integrate it into 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 survey and living standard household surveys of a country apart from national account statistics. A social accounting matrix is a linked set of statistical tables which provides a schematic portrayal of the circular flow of income in the economy at a single point in time, including activities and commodities, factors of production, and certain institutions. It 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 modeling work. Standard SAMs do not offer much gender-disaggregated data. At this stage, raw data is 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 and variables are also recognized with gender aware concerns).

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 6.1. 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. His implies that the framework allows for measurement of total activity of a person. Moreover, movement from one type of activity, i.e. NMW to the other such as market related activity 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 dimension. 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_j s 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.

SCHEMATIC GENDER SAM

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Lab Cas - Female										x	x	o				Z1
2 Lab Cas - Male										x	x	o				Z2
3 Lab Reg - Female										x	o	o				Z3
4 Lab Reg - Male										x	o	o				Z4
5 Formal Capital Owner										x	o	o				Z5
6 Informal Capital Owner										o	x	o				Z6
7 NMW-FEMALE													x			Z7
8 NMW-MALE													x			Z8
9 LEISURE										x						Z9
10 HOUSEHOLDS	x	x	x	x	x	x	x	x								Z10
11 FORMAL SECTOR									x	x	x		x	x		Z11
12 INFORMAL SECTOR									x	x	x		x	x		Z12
13 CARE SECTOR									x	o	o					Z13
14 CAPTAL A/C									x	o	o		x			Z14
15 ROW										x	x				x	Z15
16 TOTAL	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12	Z13	Z14	Z15	ZZ

Step 7: Drawing on the results from the scenario analyses, produce a draft report that demonstrates how a gender-aware modeling 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. It would be possible to study the impact of a situation when states increase health and education schemes. As women benefit through reallocating time to market and NMW. The time freed for women could be used for increased leisure meaning improved well-being and welfare gain or/and; shift NMW to market work that would add to statistically measured value added. This would improve overall GDP of the country and also would result in higher resources by the government through taxation, allowing for funds for social sector. In an alternative scenario, policy impacts could lead to expansion of garment industry, which would result in higher demand for women market work. Women would make a choice and move from NMW to MW if they are supported to do so (through state support or family support). As a result value added would again increase and also the cycle of taxing etc follows.

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 modelers and statisticians from private institutions and universities worldwide.

MODULE 6

Guide to Analytical Tools for Integrating Household Production into National Budget

Aims of the Module

- Understand how the principles of Gender Responsive Budgeting (GRB) can be used to analyze allocation of resources for, and implementation of, policies and programmes that affect household production.
- Provide examples of practices from GRB initiatives in different countries that can be used for this analysis.

Overview

Module 6 outlines procedures for integrating household production and services into national budgets using the concept of gender-responsive budgeting (GRB).

Gender Responsive Budgeting

Gender-responsive budgets are tools and processes designed to facilitate a gender analysis in the formulation of government budgets and the allocation of resources. Gender budgets are not separate budgets for women, or for men. They are attempts to break down or disaggregate the government's mainstream budget according to its impacts on women and men.

GRB initiatives differ in their scope: some cover the budget of a particular ministry; some encompass 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 (e.g., women's access to water) and look at relevant programmes across ministries. Most focus on the expenditure side of the budget, but a few have looked at revenue. Some focus on budgets at the national level, but increasingly there are also initiatives at the local level.

The GRB initiatives that have emerged in eight African countries are starting to address gender inequalities in household production. While GRB is sometimes perceived as advocating for "more for women," this tool is not designed to promote special interests. Instead, the initiatives are intended to make visible the invisible. Firstly, they make visible the differences in needs and interests between different groups of people living in the country. Secondly, they represent an improved economic paradigm that recognizes the costs of household work: unpaid, subsistence, and informal.

The two tools included in this module are expected to assist governments in preparing and analyzing gender-responsive budgeting (Figures 1 and 2). These frameworks, which have been used by initiatives in Kenya, Rwanda, South Africa, Tanzania and Uganda, comprise five

“steps” and three “categories” (ECA, 2003a). These frameworks can easily be adapted for budget analysis related to household production.

Figure 1 describes each of the five steps of gender-responsive policy and budget analysis. The steps are very similar to those used in performance-based budgeting (PBB). Gender-responsive budgeting adds value to the PBB approach because it does not assume that all individuals living in the country have the same needs, nor that programmes will affect people in the same way.

Figure 1: The Five Steps for Gender Budget Analysis

Step#	Description of step	Entry point
1	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.	Target population
2	An assessment of the policies, programmes and projects in terms of their gender-sensitivity, i.e. if they address the situation described in step 1.	Policies and programmes
3	An assessment as to whether adequate financial (i.e., budgetary) and other resources are allocated to effectively implement gender-sensitive policies, programmes and projects from step 2.	Inputs
4	Monitoring to assess whether expenditures allocated in step 3 have been spent as planned.	Outputs
5	Assessment of whether the policies and associated expenditures have promoted gender equity as intended, and effected the situation described in step 1.	Impacts

The three-category approach (Figure 2) visualizes the budget as made up of distinct sections that together make up 100 per cent. The categories are as follows:

Figure 2: The Three-category Approach to Gender-Responsive Budget Analysis

Category 1: Targeted gender-based expenditures of government departments. These are expenditures that are clearly for addressing gender or women's issues (e.g., women's health and special business programmes for women, grants for single mothers, and support for widows).
Category 2: Equal employment opportunity expenditures for government employees. These are expenditures that promote equal opportunities for women and men employed by the government. Examples include training for women managers, provision of crèche facilities, and parental leave.
Category 3: General (mainstream) budget expenditures judged on their impact on women and men, girls and boys. This covers all other government expenditures. Analysis of this category asks questions such as who needs particular services, and whom do they reach. It asks how programmes, projects and the associated budgets advance the roles women and men in the society.

In this approach, ideally gender-responsive initiatives should pay most attention to Category 3. Categories 1 and 2 can be seen as representing a type of affirmative action or positive discrimination—i.e., expenditures that fast-track gender equality. Category 3 represents mainstreaming—i.e., using “general” programmes and their budgets to achieve gender equality. Ultimately, when all mainstream expenditures are gender-responsive, there will be no further need for expenditures in Categories 1 and 2.

Reporting on gender in official budget documents

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. This section therefore looks at how different countries have reported on gender in their official budget documents (Budlender et al 2003). The examples below include household production issues fairly explicitly.

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 PBB approach to budgeting. The Budget Review thus included both tables showing budget allocations and more descriptive narratives such as the one below. In both 1998 and 1998 there was a special effort, supported by the Commonwealth Secretariat, to make the narratives gender-sensitive. This example shows sensitivity to gender as well as race, location and poverty issues. It also directly addresses needs and work related to household production.

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

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 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.

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. This example 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.

Gender-aware Modeling

Further to its tools, ECA is also developing a gender-aware macroeconomic model that 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 paid and unpaid work, money and non-money income, leisure time, education, etc. The model is also expected to generate insights into how gender differences in economic behaviour in both the market and the non-market economies impact on various macroeconomic outcomes - growth, trade and poverty reduction.

How does this Guidebook Contribute to Closing the Gender Gap in the Social and Economic Development of Africa?

The gender dimension of poverty is particularly important in Africa, where women find themselves marginalized in the economic and social development process. Expanding Africa's trade and agricultural production as well as the contribution of the household production and services to these sectors including non-market work to which women provide substantial labour, are seen as fundamental to accelerating growth and reducing poverty. Today, over 300 million people in Africa survive on less than \$US 1 a day. Of this population, 80 per cent are estimated to be women. Therefore, the need to address growth issues from a gender standpoint is critical to "pro-poor growth" as there is now a large body of micro-economic empirical evidence and increasing macroeconomic analysis, which show that gender inequality directly and indirectly limits economic growth in Africa.

Women provide most of the labour in African household production and services, which include: the non-market work; the subsistence production; and the informal sector production. Women spend 67 per cent of their labour on non-market work, they provide 70 per cent of the total agricultural labour and comprise 60 per cent of the informal sector. This makes households the biggest sector with crucial responsibility for making decisions relating to savings and investment, education, migration, labour supply demand that affect the level of economic performance. Yet, women lack equal access to health, education, finance and other essential resources, and their significant contribution to the economy is not covered by official statistics.

Hard data and statistics will make household production and services including non-market work of men and women more visible, such that their contribution to the overall economy will not remain marginalized by policy actions that exclude them. The Guidebook offers a roadmap in identifying policy options and advocacy strategies to improve the situation of household workers, especially women. Such informed policy action can make a difference in the lives of women and men who have the existing potential to increase their contribution to national productivity.

Given the rather dire prospects for poverty reduction in Africa, under any scenario, it could be argued that the continent needs to exploit all the available opportunities for reducing poverty, through higher pro-poor growth, as well as by reducing inequality—particularly gender inequality. According to recent analysis, reducing gender inequality in Africa has greater effects on poverty alleviation than reducing the income gap (UNCTAD, 2002). These actions therefore deserve high priority in the policy agenda if the continent is to reduce poverty systematically and to accomplish the MDGs. Hence, development of a compendium of tools and methodologies such as in this Guidebook is one crucial way forward towards this end.

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