

# 1. Time Poverty: A Contributor to Women's Poverty?

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## **Abstract**

*Inequality is a major challenge to development and an obstacle to achieving the MDGs. It takes many different forms, including income inequality, unequal access to and control over property and resources, unequal access to civil and political rights, and unequal access to social, cultural, and economic rights. All these forms of inequality possess inherent gender dimensions. One form of inequality that has received much less analysis but which has major adverse implications for accessing economic rights relates to gender-differentiated time-use. The allocation of time between women and men in the household and in the economy is a major gender issue in the evolving discourse on time poverty. This article, in analyzing the allocation of social roles between men and women, shows first how this allocation leads to time poverty among women; second, how this has an impact on achievement of the MDGs; and third, how by using time-use survey methodologies and tools, it is possible to collect sex-disaggregated time-use data. Such data will help policymakers to incorporate time poverty analysis as one of the component of the overall poverty reduction strategies and MDGs assessment and monitoring.*

**Key words:** Poverty reduction, time poverty, gender inequality, time-use survey methodology, MDGs assessment and monitoring

## **Résumé**

*L'inégalité constitue un défi de développement majeur et un obstacle à la réalisation des OMD. Elle se présente sous une multitude de formes, dont les disparités de revenus, les inégalités en matière d'accès et de contrôle des propriétés et des ressources, l'accès inégal aux droits civiques et politiques, ainsi qu'aux droits sociaux, culturels et économiques. Toutes ces formes de disparités ont une dimension sexospécifique intrinsèque. L'une d'elles a été beaucoup moins étudiée que les autres, et pourtant elle a de graves répercussions sur l'accès aux droits économiques. Il s'agit de l'inégalité du temps disponible. La répartition du temps disponible entre les hommes et les femmes dans les ménages et dans l'économie est une importante question de genre dans l'évolution de la réflexion sur la pauvreté en temps. En analysant la répartition des responsabilités sociales entre les hommes et les femmes, cet article montre d'abord comment la différence de temps disponible cause la pauvreté en temps chez les femmes. Ensuite, il analyse les effets de cette situation sur la réalisation des OMD. Enfin, il démontre comment, en ayant recours aux méthodes et outils d'enquêtes sur l'utilisation du temps, il est*

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*possible d'obtenir des données désagrégées selon le genre. Ces données permettront aux décideurs d'intégrer l'analyse de la pauvreté en temps dans l'évaluation et le suivi des stratégies de réduction de la pauvreté et des OMD.*

**Mots clés :** *réduction de la pauvreté, pauvreté en temps, inégalités entre les genres, méthodologie d'enquête sur l'utilisation du temps, évaluation et suivi des OMD.*

## 1. INTRODUCTION

Inequality is a major challenge to development and an obstacle to achieving the MDGs. It takes many different forms, including income inequality, unequal access to and control over property, civil and political rights, and social, cultural, and economic rights. All these forms of inequality possess inherent gender dimensions. One form of inequality that has received much less analysis but has adverse implications for accessing economic rights is that relating to time. The allocation of time between women and men in the household and in the economy is a major gender issue in the evolving discourse on time poverty. This article, in analyzing the allocation of social roles between men and women, shows first how this allocation leads to time poverty among women, and second, how this impacts the achievement of the MDGs.

Women's time does not belong to them. It is well known that patriarchal systems still prevail in many regions of the world, including Africa, and that these have defined and perpetuated gender roles that allow men to control women's time and labor. In most African societies, women and girls are allocated critically important and time-consuming responsibilities, which overburden them with work in the reproduction, production, household, and community spheres.

An analysis of "who does what and when" within the normal African household shows that women and girls are responsible for collecting water and firewood, cooking, cleaning, taking care of the children, the infirm and the sick, producing food, and marketing any surpluses. They also dedicate a lot of their time to maintaining social cohesion within the community. All these tasks are considered to be low-status activities, unremunerated and unrecognized in the national statistics. Women who spend all their time performing these tasks are often considered as "not working."

The 1995 *Human Development Report* used time-use data from 31 countries to highlight women's status in the world and to measure their contribution

to economies. The main finding of this report is that if both paid and unpaid work are considered, women perform a larger share of work than men in both developing and developed countries. This women's work, which is important for human well-being, is to a large extent unpaid and not considered in national accounting systems. The conclusion of the report was that "much of women's work remains unrecognized and unvalued. This has an impact on the status of women in society, their opportunities in public life and the gender blindness of development policy" (UNDP, 1995).

## 2. PROMOTING TIME POVERTY ANALYSIS

A promising way to re-enforce women's economic rights and increase accountability for various international development initiatives such as MDGs is to include time poverty analysis into poverty reduction strategies and MDGs assessment and monitoring. This approach, using time-use data to analyze gender inequality in the allocation of unremunerated work, is a field of research that is still nascent and insufficiently explored, especially within Africa. In an attempt to remedy this situation, the United Nations Economic Commission for Africa (UNECA) has launched a program to promote the generation of time-use data in all African countries. In 2009 Ghana and Djibouti were selected as the pilot countries to undertake time-use surveys.

The entry point of this approach is the widespread recognition that time is the ultimate resource, which should, in principle, be equally shared by everyone. Time can be converted into money, goods, and services through work. Additionally, time is also required for the consumption of goods and services, for community work, and for leisure activities. That is why time-use analysis can offer an overview of all human activities (market and non-market work, consumption, community and leisure activities).

### 2.1 Time-use analysis and its role in assessing the MDGs

Existing data in relation to gender inequality (including the *Morocco Time Use Report, 1999*; *South Africa Time Use Report 2000*; and the *Madagascar Time Use Report 2002*) show that time itself is an essential resource in allowing people to free themselves from poverty.

**Millennium Development Goal (MDG) number 1** aims to halve the proportion of people living on less than a dollar a day by 2015, targeting eradication of extreme poverty and hunger. Since income is the ultimate resource that most governments take into account when measuring poverty

and national poverty levels, governments have to consider the amount of income people should generate in order to acquire basic food items sufficient to feed families of different sizes. In measuring poverty rates, it is necessary to consider the incomes of families and the number of people in them. However, governments must also recognize that escaping poverty first requires expenditure of time toward remunerated or income-generating activities. It goes without saying that if a poor person devotes time only to unremunerated activities; it is very unlikely that s/he will be able to escape the cycle of poverty without substantial assistance.

In countries where time-use studies have been conducted, it has been shown that women work significantly longer hours per day than men. In rural areas especially, most of women's time is spent on household and subsistence activities. Little time is left for market-related and remunerated activities. Compared to men, women have very heavy time loads due to the need to balance the demands of their multiple roles: productive, reproductive, social, and community. The patriarchal foundation of the distribution of roles by gender is the major cause of gender inequality, the heavy time-burden on women and girls, and ultimately, the feminization of poverty.

In South Africa, women's contribution in non-market production to the national economy was found to be almost double that of men. Consequently, women there had 30–40% less time for personal care and leisure than men at the household level. According to the South African 2000 time-use survey, males between the ages of 15 and 65 years spend on average only 84 minutes per day on unpaid work, while for females, this increases to 215 minutes.

To illustrate the above, several analyses of the importance of time-saving technologies and activities have highlighted their positive impact on female labor force participation. Ralph Oropesa (1993) illustrated this in his report "Female Labour Force Participation and Time Saving Household Technologies: A Case Study of the Microwave." A study by Barrett and Browne (1994) investigated the results of the introduction of village cereal mills in Gambia on the lives of women and their communities. The study concentrated on women's access to technology, the time and energy this saved, its sustainability, and women's level of control. It was found that the energy saved was of great significance to rural women, enabling them to contribute more effectively to village life. A field study on Bangladeshi villages by Biswas *et al.* (2001) tested the contextual relevance of applying renewable energy technologies. Cooking was found to be the major activity where the transfer of a time-saving technology offered practical opportunities for major lifestyle improvements. The time saved could be spent on

income-generation activities, without affecting the time allocated for other daily activities, including resting hours.

Further research of this type in Africa would be useful in further documenting and addressing the impact of women's time burden, both on the household economy and the market and public service economies. The analysis should particularly examine the linkage between time poverty, monetary poverty, and gender equity; further, it should address the adverse impact of unduly heavy time burdens on the lives of women as human beings.

**MDGs 2 and 3** target the promotion of gender equality through girls' education, that is, ensuring that all boys and girls complete a full course of primary schooling, thereby eliminating gender disparity in primary and secondary education by 2005, and at all levels by 2015. Time poverty is again a major factor and is again a gender issue. One of the main barriers to girls' education, especially in rural areas, is the social assumption and practices that girls rather than boys should assist their mothers in performing household chores (UNICEF, 2003). That is why around the world, especially in Africa, girls face multiple social and economic barriers to enrolling and staying in school.

In fact, many studies have also revealed the impact of gender differences in education and employment on growth (Ellis *et al.*, 2006). Between 1960 and 1992, the limited education and employment opportunities in Sub-Saharan Africa reduced annual per capita growth for women by 0.8%. This is significant, as a boost of 0.8% a year would have doubled economic growth over the past 30 years! The analysis suggests that gender inequality appears to account for about 15–20% of the difference in growth performance between Sub-Saharan Africa and East Asia. This lends credence to the argument that one important element in Africa's low growth may be the high level of gender inequality in education and employment. Gender inequality is an important element in accounting for the region's poor economic performance. Although growth regressions should be interpreted with caution, these results are striking and suggest that economic growth in Sub-Saharan Africa could increase significantly if gender-based obstacles to growth were eliminated, a point made forcefully in the report *Can Africa Claim the 21st Century?* (World Bank, 2000).

In many African societies, parents see limited economic benefits to educating their daughters, compared to the convenience of the unremunerated labor they provide. One of the main barriers that girls face is the lack of time to attend school regularly. The priority is elsewhere, as they are more

urgently needed for domestic work at home or on the farm during school hours. This lack of time is a serious root cause of girl's lower enrollment and high dropout rates. More systematic research through time-use data analysis should be encouraged on the specific linkages between girls' time poverty, their enrollment in school and success rates in various personal, household, and community activities in later life.

**MDGs 4 and 5** target reduced child mortality and improved maternal health. In these areas also, time-use analysis is an entry point to inform policies and programs. Child and maternal health present very distinct challenges that are inextricably linked to time use. Research has proven that the extreme fatigue and weakness that women suffer due to work overload (lack of time devoted to resting and /or leisure activities), especially while they are pregnant, aggravated by difficult access to healthcare services, are among the factors that cause maternal and neonatal mortality. Several studies have also found a positive correlation between education, lower fertility, and lower infant mortality. This means that where girls are given the chance to use their time to receive an education, it translates into gains for their future families, reducing fertility and leading to a healthier family.

**MDG 6** targets HIV/AIDS and it is important to incorporate the gender dimension and the time-use aspect in designing, planning, and implementing support programs. While it is widely recognized that Africa is severely affected by this pandemic, and that women and young girls are the ones who carry the heavy burden of looking after the children as well as those family members who are HIV-infected, most HIV/AIDS support programs have not taken the time-use dimension into consideration.

**MDG 7** aims at ensuring environmental sustainability, as the survival of communities depends on access to natural resources: land, water, and forests. Women and girls spend a lot of time walking long distances to bring water, wood, and fuel to their families. Women are the primary collectors and transporters of these utilities, and have developed in-depth knowledge of how to manage them to ensure their preservation for future use and future generations. One way to improve women's access to and control over natural resources is to reduce the time spent and distance traveled to obtain these resources.

### 3. DEFINITION AND THE ROLE OF TIME-USE SURVEYS

Time-use surveys are designed to account for the nature, duration, and location of all activities carried out by the population during a reference period. The time-use survey was first used at the beginning of the 20th century, by researchers interested in understanding how people allocated time to various daily activities. The focus of these surveys was to understand human behavior and the lifestyle of people, especially for the portion of their life for which no information was available from traditional data sources.

The time-use survey later came to acquire an additional and more interesting focus because it gives a complete picture of the society, by providing detailed information about how people use their time on different market and non-market activities, on a daily and weekly basis.

Time-use surveys now play an essential role in shedding more light on the current vision of the economy and of the statistical system. Three factors account for this:

- They show a more complete presentation of the economy and society by providing vital information on those areas that are presently invisible in national accounts;
- They contribute better information on informal sectors in order to improve the estimation of economic activities (SNA work) in national accounts;
- They highlight the importance of the non-market (unpaid) work, for maintaining the labor force and the human capital. The time-use survey allows also an estimation of its contribution to the economy and long-term growth.

In practice, the concept of the time-use survey is predicated on the fact that time is the ultimate resource, which is shared equally by everyone. There are 24 hours in everyone's day, which allows a comparative analysis of time spent by everybody. This time can be converted into money, goods, and services through work. Additionally, time is required for the consumption of goods and services, for community work, and even for leisure activities. An analysis of time use therefore offers a comprehensive overview of all human activities (market and nonmarket work, consumption, community, and leisure activities).

#### 4. A COMPARATIVE ANALYSIS OF TIME-USE METHODOLOGIES IN EUROPE AND AFRICA

The basic methodological issues are common to almost all time-use surveys, and they can be addressed through the different themes and questions listed below. As the various subjects are raised, it will be interesting to proceed to a comparison between (i) the *Guidelines on Harmonized European Time-Use Surveys* – hereafter referred to as the *Guidelines* (Eurostat, 2004), which promulgate the basic methodologies for European countries and (ii) those methodologies used by African countries.

##### 4.1 Sample design

###### *Methods for the sample design – Europe*

The “sample design” refers to the choice of the population covered by the survey. The survey sample should be representative of the country's population. Some countries have adopted the household as a unit of study: that is, all individuals in the households are included in the survey. Other countries have used the individual as the sampling unit: that is, some individuals in each sampled household would be covered by the survey.

The main questions are:

- Which population is concerned? (Resident or/and nonresident population? Urban or/and rural population? Individual or/and collective households?)
- How to choose the sample population? Which households? Which members within the households?

Time-use surveys have been conducted in most European countries, but due to national variants in the survey design, the international comparability of the results has been very low. To rectify this situation, the European countries advocated for an increase in comparability between national time-use surveys. To this end, they gave Eurostat a mandate to develop recommendations for harmonized methodologies, to ensure comparability in the results, both in time and between countries. However, the European countries did not rigorously adhere to these harmonized guidelines. Major and minor deviations were noticed from the harmonized method, which was finalized in 2000.

For the sample design, the *Guidelines* (Eurostat, 2004) make the following main recommendations:

- To consider, as the reference population, the persons resident at domestic addresses and to exclude from the survey any persons living in institutions (military service, hospitals, prisons, etc.);
- The sampled households must be representative of the whole population in its diversity;
- The household approach is the unit of study, meaning that all individuals (ten years and older) of the sampled households will be included in the survey;
- To use the population registers for drawing samples of individuals. And then to achieve the sample of the population, the households of the sampled individuals are included the survey.

Some European countries did not follow these recommendations and introduced modifications. In Sweden and Norway, for example, individuals were chosen from the population register. Portugal did not use the household as the sample unit either and decided to choose one or two members of the household to be interviewed. Concerning the minimum age, there was considerable variation. The lowest age was in Portugal, where all persons aged 6 and above were surveyed. In France the minimum age was 15 and in Sweden, persons 20 years old and above were interviewed.

### *Methods for the sample design – African countries*

In the absence of guiding recommendations, African countries have followed very divergent methods for choosing the sample population. In **South Africa** the sample population was chosen from all the nine provinces constituting the Republic, and within a province from four different types of settlement areas (formal urban settlement; informal urban settlement; commercial farming areas; and other rural areas). Persons living in institutions like prisons, hospitals, hotels, and boarding schools were excluded from the survey. The survey adopted the approach based on household individuals: in other words, information was collected from two respondents aged 10 years and above from each selected household.

In **Benin** a two-stage sample design was used where every household member aged between 6 and 65 years old was interviewed. But owing to the fact that there were two independent samples (urban and rural), the findings were not aggregated at a national level, but presented only by residence area (rural or urban). The sample population was identical to the ones used in the semester household surveys on labor, income, and social indicators conducted in urban and rural areas. The framework was, for the urban area, the five principal towns of the country, which represent more than 55% of the urban population. The sample was selected from 100 zones from the

5 towns; and 20 households were then selected from each zone. The same procedure was used for the rural area, where 135 villages were selected for the first stage and 15 households in each zone for the second stage.

**Morocco's** time-use survey was applied to a "reference woman," meaning one woman aged from 15 to 70 years old per family. This therefore has the characteristic of focusing only on female activities, which precludes a comparison of the time spent differentially by women and men in Morocco.

**Nigeria's** time-use survey was applied on a very small sample of 100 private households selected from the General Household Survey's sample. The survey was conducted in only five states (four states and Lagos) of the Federation, where survey organizations with permanent field staff were available. It covered all members aged above 10 years of the sampled households, which corresponds to 243 respondents.

In **Madagascar** the sample population was based on the frame prepared for the 2001 Household Survey. It was chosen from the urban and rural areas of each province constituting the country. The survey adopted the household approach, in that information was collected from all respondents aged from 6 to 65 years of age, from each selected household.

#### 4.2 The time-diary approach

The "time diary" is the most frequently used method of data collection, because the range of information collected in the diary and associated instruments is able to provide contextual dimensions to the data. This information is important for time-use analysis in order to understand the complexity of people's daily activities.

As examples of the kind of vital information needed, the survey should provide information on the:

- Primary activity (the main thing being done at any one time);
- Secondary activities (others things being done simultaneously);
- Time of activity (the time at which different activities occur);
- Activity sequence (how different activities relate to one another);
- Activity duration (the time spent on each main activity);
- Activity location (where the respondent was);
- Social contacts (who else was present at the time).
- For whom the activity is performed (for household members or other persons; how many persons).

To collect this information, the time-diary approach uses several methods:

- (i) **Self-completed diary:** The respondents are asked to fill in a diary, reporting their daily activities for a number of selected days. The two ways of recording are the *simultaneous collection*, where activities are recorded just after they have been performed, and the *recall method*, where daily activities are recorded once, from memory.
- (ii) **Face-to-face or telephone interview:** The respondents' daily activities are observed and recorded by a third party, namely the interviewer.
- (iii) **Selection of diary days and coverage of the year:** The general rule is that the more diary days there are for data collection, the more accurate it will be. But considering the problems related to the resources and to non-responses, the choice of two or three days is seen as reasonable. If respondents are, for example, asked to report on two days' activities, it is important to assign specific days for the different respondents, in order to get information on each day of the week. It is also important to spread the survey over the different periods of the year in order to take into account the seasonal differences in activities.

### *The time-diary approach – Europe*

On this time-diary issue, the *Guidelines* (Eurostat, 2004) make the following recommendations:

- To use the self-completed diary to record the daily activities;
- To use at least two diary days, one during the working week (Monday to Friday) and one at the weekend (Saturday or Sunday);
- To use a separate diary for an adult and for a child;
- To use fixed 10-minute time slots;
- To record the secondary activities;
- To mention for whom and with whom the activity is performed;
- To spread the survey fieldwork over a full 12-month period in order to take into account the effect of seasonal variations on various activities;
- To allocate the diary days and dates to households and individuals by a controlled random procedure, in order to minimize the postponement and non-response rate.

In Denmark, respondents were asked to complete two diaries, one on a weekday, and one at the weekend. Diaries covered full 24-hour periods and were divided into 10-minute time slots. Sampled respondents and the respondent's spouse or partner were asked to complete diaries.

For this method of data collection also, some European countries deviated from the harmonized recommendations. For example, instead of using two diary days, countries like Belgium, France, and Portugal adopted a one-day diary. Romania, Denmark, and Portugal did not cover a full 12-month period, as was recommended, but undertook the survey over just two or three months.

### *The time-diary approach – African countries*

In Africa, the respondents' daily activities were recorded through the face-to-face interviews, rather than asking them to fill in a diary. This methodology was used because of the high level of illiteracy in the continent. Only Nigeria used a combined method; in this case, data was collected through the self-completed diary for literate persons and through recall interview for illiterate persons.

The use of at least two diary days with fixed 10-minute time slots was found to be very problematic in the African context. This was due, first, to budgetary limitations and second, to a general lack of adherence to rigid time schedules by African people, particularly in rural areas. As a result, most of the surveyed African countries used a one-day diary with a half-hour or one-hour time slot. **South Africa** used the one-day 24-hour diary, which was divided into half-hour slots, and in each slot, a maximum of three activities could be recorded. **Benin** and **Madagascar** also used the one-day 24-hour diary, but divided it into 15-minute slots. In each slot, respondents were asked to report if they performed more than one activity; however there were no specifications on whether to classify the simultaneous activities as primary or secondary.

In **Morocco**, instead of using a fixed interval time, every observed activity was recorded the moment it was started and finished, as well as the time spent on it. In **Nigeria**, the entire seven days of the week were covered for all eligible household members rather than just one day as in other African countries. Initially it was planned to fix the time diary in intervals of 30 minutes. However, in consideration of the fact that the population does not keep strict time schedules, coupled with the use of the recall method in collecting the data, it was agreed that the open format diary should be used. The respondents were asked to recall major activities and the approximate time taken to complete these activities.

In addition, instead of covering a whole year, some African surveys were carried out over three or four months at different periods of the year (South Africa, Madagascar) in order to catch seasonal variations. In other countries,

the survey was carried out just one time (Benin, Nigeria). Only Morocco collected data over a whole year period.

### 4.3 The survey forms

The term “survey forms” refers to a number of different instruments that permit the collection of information about the household members. The three main tools are: (i) the *household questionnaire*, which provides information about the household, viz. its composition, housing and living conditions, and income; (ii) the *individual questionnaire*, which provides demographic information about the sampled individuals, e.g. status in employment, level of education, etc.; and (iii) the *diary*, which records information on the individual’s main and secondary activities, the duration and the location of these activities.

#### *Survey forms – Europe*

Concerning these tools, the *Guidelines* make the following recommendations:

- The Directions for the Survey Forms to be used as guidance for the design of household and individual questionnaires and also for the diary;
- The household questionnaire to provide valuable information about the household stocks of capital (domestic appliances, etc.) and about the consumption of market services that substitute for the household’s own labor (maids, childcare centers, nursing, etc.). In many European countries, inventories of domestic appliances have formed part of this questionnaire.
- the household and the individual questionnaires are used in face-to-face or telephone interview;
- the diary is left behind, to be filled in by household members.

#### *Survey forms – African countries*

Each country has built its own survey instruments (questionnaires), which are largely based on those developed by the European countries and on its own experience related to other surveys, such as the household or labor force surveys. However, most of the African questionnaires (South Africa excepted) do not contain adequate and pertinent questions to measure the non-market economy work. The social and cultural context of women’s behaviors or work related, for example, to ethnic or religious origin are not taken into account in those questionnaires. Let us look at the individual countries in turn.

In **Morocco** four types of questionnaires were developed:

- (i) The first questionnaire collects data from every household member and selects the woman eligible for the individual questions (the “reference woman”). This questionnaire deals with the place of the reference woman in her family context, taking into account the characteristics of the household in order to understand the woman’s behavior by socioeconomic and sociodemographic type.
- (ii) The second questionnaire is meant for the reference woman and deals with her sociodemographic characteristics, access to healthcare, active life-cycle, participation in decision-making, and the nature of her skills.
- (iii) The third questionnaire deals with the time-use of a proportion (2/3) of reference women and is focused on a detailed list of all activities and time spent in the performance of each activity during a whole day.
- (iv) The fourth questionnaire is used to collect data about the rural communities, insofar as this has an effect on the rural woman’s behavior, her active integration into community life, and the value given to her skills when used in income-generating activities. It also deals with the nature of existing services in the community, their quality, proximity and the degree in which rural women use them.

In **South Africa** the questionnaire used to collect information comprised three sections. The first covered details of the household, such as its composition, housing and living conditions, and income. The second section covered demographic details (status in employment, level of education) of the first person selected in each household. These two sections contained many standard questions from other surveys, such as household or labor surveys. The third section consisted of a diary, which permitted the interviewer to record the activities performed by the first person selected.

**Nigeria** also used a three-part questionnaire as follows: (i) the *household questionnaire* was used to record information on demographic characteristics of household members; (ii) the *household diary* (simplified time diary) provided a diary of activities on which household members spent time during the reference period; and (iii) the use of a *time summary schedule*, provided a short summary, on a daily basis, of time spent by household members aged 10 years and above.

In **Benin** information was collected through a single questionnaire describing a list of economic, domestic, and social activities, together with other occupations.

#### 4.4 The activity classification system

In a time-use survey, the *activity* is a basic unit of analysis, thus the nomenclature and classification of activities will be an important part of the planning, collection, and analysis of time-use data. The data can be easily compared between countries, providing there is a standard system of activity classification in place, which must cover all aspects of human activity.

In order to understand the variety and the range of all activities undertaken by the individuals, the time-use activity classification system seeks to organize those activities into groups according to their similarities: paid work activities (contacted); unpaid but productive activities (committed); personal care activities (necessary); or leisure activities (free). The basic two criteria of activity classification are (i) type of activity and (ii) the time spent on it.

##### *Activity classification system – Europe*

The Eurostat classification system used by more than 18 European countries proposes a coding scheme at one- and two-digit levels, while maintaining the opportunity for country-specific adaptations at the third-digit level. The first level contains 10 categories, and at the third level there are more than 100 activity categories. Variables in the diary that were coded were main activity, secondary activity, and location.

The main activities (first level of 10 categories) are:

- 0 Personal care
- 1 Employment
- 2 Study
- 3 Household and family care
- 4 Volunteer work and meetings
- 5 Social life and entertainment
- 6 Sport and outdoor activities
- 7 Hobbies and games
- 8 Mass media
- 9 Travel and unspecified time use.

##### *The UN's trial classification system*

The United Nations has proposed an international trial classification system, which differs from the Eurostat classification in three principal ways:

- The basic framework for distinguishing the economic nature of activities is the system of national accounts (SNA);

- All non-market production is brought together into a single, one-digit category and further specified at the two-digit and three-digit levels;
- Paid work activities which are undefined at the two- and three-digit level are given a more detailed breakdown.

This classification emphasizes productive activities, not only in the formal sector but also in the household and informal sectors. These distinctions are essential in understanding and recording the full range of work, both in developed and developing countries. In this classification system, activities that represent production within the SNA production boundary are classified in groups 1 to 3. Activities that fall predominantly within the general production boundary but outside the SNA, are classified in groups 4 to 6. Groups 7 to 10 cover nonproductive activities.

#### **UNITED NATIONS TRIAL CLASSIFICATION SYSTEM**

##### **SNA production (in the National Accounts)**

1. Employment for establishments
2. Primary production, not for establishments
3. Other production of goods and services not for establishments.

##### **Non-SNA production (considered as productive but not included in National Accounts)**

4. Household maintenance
5. Care of persons in the household
6. Community service to non-household members.

##### **Nonproductive (not included in National Accounts)**

7. Learning
8. Social and cultural includes activities
9. Mass media
10. Personal care.

#### ***Activity classification systems – African countries***

The concrete content of daily activities varies from country to country. The classification system developed by the European countries is not well suited to reflect the situation in African countries. Most existing systems fail to take into account the specific case of Africa – in particular, women's unpaid work for the household and in the informal sector.

The UN, in response, has developed the above-mentioned trial of a more detailed classification, which seeks to incorporate the developing countries' needs concerning the informal and household sectors. But still there is more work required in order to reach a common understanding of which classification is best suited to the African context, in particular to record the nonmarket (unpaid) work. **South Africa, Madagascar, and Nigeria** have adopted the UN classification system, while others such as Morocco and Benin have built their own classification systems.

The coding system in **Morocco** contained more than 600 activities carried out by women, and classified them into 9 categories:

1. Professional work includes the main professional occupation or economic activity;
2. Learning includes education and training, both formal and informal studies;
3. Household maintenance includes activities such as food preparation, water supply, and cleaning the dwelling;
4. Care for children includes activities such as playing and education, and medical care for children;
5. Travel not considered elsewhere;
6. Meals taken inside or outside the household;
7. Personal care includes medical care and other private activities;
8. Leisure includes activities such as participation in sport, festivals, and religious practices;
9. Other leisure includes activities, for example, attending a spectacle and dancing.

**Benin** has also elaborated its own classification system, according to the kinds of activities undertaken by the population, but also according to the logical and possible order of development of these activities during the day. The diverse activities number 63, classified in 9 categories as follows:

1. Economic activities for the market;
2. Nonmarket economic activities;
3. Domestic activities;
4. Social activities;
5. Social activities of ceremonial type, and other social activities;
6. Transport, traveling;
7. Leisure;
8. Studying and education;
9. Other activities.

Benin and Morocco's classification systems are different from the one formulated by the United Nations and used by countries like South Africa, and they are not compatible with the conceptual framework of the SNA. These differences raise the issue of comparability between the different systems of classification used in Africa; indeed, the findings from the different countries would be difficult to compare.

#### **4.5 Methods for undertaking the fieldwork**

How to undertake the fieldwork depends on different factors, such as the tools used for the data collection, the survey objectives, the level of literacy of the population, and available resources. Some developed countries, such as Denmark and Canada, conduct their time-use surveys by telephone. According to these countries, telephone interviewing has the advantage of reasonable cost (less than face-to-face interviewing) and a high response rate (higher than self-completed mail-back questionnaires). However, this form of data collection has the major limitation of excluding the households without phones, which are likely to be concentrated in certain population groups (such as the poor), thereby excluding them from the survey. This is likely to have an impact on the representativeness of the results. Another problem connected to the telephone interview is that it seems to have a lower response rate than the face-to-face interview, because it is easier for respondents to refuse to participate in the survey, than when the interviewer is actually in front of them.

### ***Fieldwork methodologies – Europe***

Eurostat's *Guidelines* also make recommendations in connection with time-use survey fieldwork. These recommendations concern all aspects related to the fieldwork such as the recruitment and training of the interviewers, the planning and supervision of interviews, the keeping of diaries, the training of coders, and the supervision of coding work. The *Guidelines* are very useful in order to reach a common understanding of the different steps, activities, and procedures needed for the fieldwork.

The *Guidelines* recommend that the household and the individual questionnaires be administered in face-to-face or telephone interviews. The diary is left behind, to be completed by household members. The instructions on diary keeping must be given to the respondents in person.

### ***Fieldwork methodologies – African countries***

Eurostat's *Guidelines* and other manuals from developed countries on how to conduct the field operations are not adapted for African countries, insofar as the methods and tools used to collect information are not the same. For example, the face-to-face interview method has to take account of the African-specific context, which relates to the variety of languages spoken, the cultural diversities, the rate of illiteracy, and the importance of simultaneous activities. It calls for a specific "Manual for Fieldworkers," including practical instructions on the recruitment and training of the interviewers, and on the planning and the supervision of field activities.

In **South Africa**, a manual of procedures and guidelines was made available for the fieldwork, which was conducted over three periods (February, June, and October 2000) so as to cover seasonal variations in the various activities. Over 100 temporary fieldworkers were employed for each of the three periods of the survey. These South African fieldworkers received a one-week training session. Similarly, in **Nigeria** the fieldworkers had a one-day training session on how to complete the questionnaire, and how to use the schedule of the trial International Classification of Time-Use Activities. This one-day training was inadequate to properly cover all the tasks. It is also noted that there was no field practice during the training.

## **4.6 Methods for data processing**

The data entry and processing from the three different survey forms (the household questionnaire, the individual questionnaires, and the diary) need specific computer applications and skills, which guarantee efficient data collection and timely processing for use in tabulations. Eurostat has

chosen the Blaise III version software for the development of the time-use data entry application. Blaise is a powerful computer-assisted interviewing or telephone instrument and survey data-processing tool. It was developed by Statistics Netherlands and is used for a variety of household survey data collection and processing, such as time-use surveys.

In Africa, there is a lack of knowledge regarding the methodology and skills needed to process and analyze the data from time-use surveys, especially for examining the multisectoral linkage between market and nonmarket work. The purpose of this exercise is not only to illustrate differences in activities in market and nonmarket spheres. The aim is also to plug this information into a macroeconomic and mutisectoral framework as the Social Accounting Matrices (SAM), in order to build a new economic system that will allow the incorporation of the nonmarket work into the national accounting system through satellite accounts.

The issue of capacity building to process and analyze data from time-use surveys is therefore highly critical for the African countries.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This paper has questioned the enduring patriarchal allocation of gender roles by recognizing that alleviating women's time poverty not only benefits women and their communities, but also contributes to the achievement of the MDGs. Reducing women's workload of household activities among others, can save time that may then be allocated to other productive, remunerated work. This should contribute to reducing poverty, improve girls' chances to receive an education at all levels, and lead to a reduction in maternal and child mortality. It should also empower women and enable them to better claim their rights, and to take an active role in decision-making and in the management of natural resources.

Women's and girls' access to a good education, to productive and remunerated activities, as a route out of poverty, is often limited by their responsibility for everyday, unpaid household and care activities. For poor women and girls, this burden is even greater because of the underinvestment in public infrastructure and the effect of wars and conflicts on infrastructure. The time women and girls spend on routine tasks could be reduced dramatically if the appropriate infrastructure were put in place, whereby efficient sources of energy (especially new forms of fuel for cooking and heating), transport systems, and water and sanitation systems were more readily accessible to

women (UNECA, 2004). Investments in such infrastructure to relieve women's time burdens are therefore essential to maximize the impact of poverty reduction strategies, gender equality strategies, and achievement of the MDGs. Providing infrastructure in both rural and urban areas benefits poor men and women alike. However, lack of adequate physical facilities (such as roads, utility supply systems, communication systems, water and waste disposal systems) and the under-provision of services flowing from those facilities, typically results in a far greater time burden for women than for men because of a gender-based household division of labor.

The increased participation of women in economic activities due to reduced workloads would greatly boost overall achievement of the MDGs. Time-use data are an efficient means to provide valuable information for mainstreaming gender into poverty alleviation strategies and achievement of MDGs.

In this respect, the time-use survey is an innovative approach for integrating a gender perspective and particularly women's non-market work (unpaid work) into national accounting systems and national budgets. Many more countries in Africa need to be encouraged to undertake such surveys through strengthening the capacity of their National Statistical Offices to produce and analyze time-use survey data. Such data will be used to design and implement policies and programs for the enforcement of women's economic and social rights, thereby preventing the increasing feminization of poverty across the continent.

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