Time Use Surveys in Developing Countries
An Assessment

Indira Hirway

Introduction:

It is now widely accepted that unpaid work, both SNA and non-SNA, is an integral part of the economy and society. That is, it is difficult to understand the functioning of an economy or a society comprehensively without understanding the role of unpaid work. Unpaid work is also a key to understanding the dynamics of gender inequalities and an important input to designing of gender equal policies. It is necessary therefore to estimate the size of paid and unpaid economies and to understand their characteristics including their inter-linkages in order to understand the functioning of the total economy. Unpaid work or the work that does not receive direct remuneration is significant in both developed and developing countries. However it holds special importance in developing countries because one observes significant unpaid work in these countries within the purview of SNA work (i.e. work covered under the production boundary of the UN-SNA) as well as non-SNA work (i.e. work falling within the general production boundary). As a result, the total size of unpaid work is usually much higher in developing countries compared to that in developed countries. Some of the major concerns of developing countries, such as poverty, low human development, informal labour, gender inequalities etc can be understood well only if one understands the nature and characteristics of unpaid work in these economies.

The need for inclusion of unpaid work in policy formulation and policy analysis calls for collection of statistics on unpaid work in a systematic manner. Time use surveys are very important here as they collect comprehensive information on human activities and provide the details of an individual’s life with a combination of specificity and comprehensiveness not achieved in any other type of survey. (Gershuny 2000). Reliable, comprehensive and periodically available time use data can throw useful light on the size and characteristics of unpaid work on the one hand, and with other sets of data, can help in understanding complexities of a variety of socio economic issues including gender inequalities on the other hand.

This paper intends to assess the status of time use surveys in developing countries with a view to understanding how far these surveys have helped in estimating and comprehending unpaid work in these economies. This has been done by reviewing about 56 time use surveys in Asia, Africa and Latin America. The paper is divided into three sections: Section One presents and approach and scope of the paper; Section Two assesses the status of time use surveys in the selected time use surveys; while Section Three discusses the use made of the data and the issues related to the mainstreaming these survey in the national statistical systems and cross country comparability of these data. It also makes suggestions about the future course of action.
Scope and Approach of Assessment

What are time use statistics?

Time use statistics provide detailed information on how individuals spend their time, on a daily or weekly basis on SNA activities that fall within the purview of the system of National Accounts\(^1\) and non-SNA activities that fall outside SNA but within the General Production Boundary\(^2\) and personal services that are personal, non-delegable activities.\(^3\) In other words, time use statistics are quantitative summaries of how individuals allocate their time over a specified time period – typically over 24 hours of a day or over the seven days of a week on different activities and how much time they spend on each of these activities. As the UN Statistical Commission 1979 in its report on Status of Work on Time Use Statistics, described, time use statistics provide data not otherwise obtainable on human activities in the various fields of social, demographic, and related economic statistics (UN, 1979). Time use statistics have three major components: (1) information on major socio-economic characteristics of households and individuals (for whom data are collected) through a background schedule or through the main schedule in case time use survey is a module in a major survey, (2) time spent by individuals on different activities like SNA and non-SNA activities and personal services, and (3) the context in which activities are carried out\(^4\). This opens up immense possibilities for understanding the total economy consisting of paid and unpaid work as well as the time spent by men and women on personal activities such as human capital formation, social networking and social capital formation, leisure or time stress etc.

Brief History

Time use statistics were first produced in the early decades of the 1900s in social surveys reporting on the living conditions of working class families. The long working hours and short leisure hours of industrial workers was a concern of organized labour, who wanted to advocate for reduction in working hours. The Bureau of Home Economics of the US Department of Agriculture conducted a time use survey in the 1920s to understand the effect of new technology on the time use of farm homemakers. Later on, time use surveys

---

\(^1\) SNA activities are those activities that fall within the Production Boundary of the UN System of National Accounts. These activities constitute the activities which are included in national income accounts.

\(^2\) Non-SNA activities are not included in national accounts but are covered under the General Production Boundary. They include all delegable production of services not covered under the national income accounts.

\(^3\) Personal services are non-delegable services, i.e. the services that cannot be delegated to others: e.g. sleeping, watching TV etc.

\(^4\) The Context variables in time use statistics usually refer to the location where the activity took place (where), the presence of other people when the activity took place (with whom), the beneficiary, person, or institution of the activity (for whom the activity was carried out), the motivation of the activity (for example, whether the activity was paid or unpaid), etc.
were carried out in different countries with a variety of objectives, such as understanding the problem of commuting and the length of commuting time, use of mass media by population, leisure time and its use by different socio-economic groups etc. With the emerging interest in women’s unpaid work and gender inequalities in the 1970s, and the World Conferences on Women thereafter, time use data are seen as a major input in estimating and valuing unpaid work of women and women’s contribution to the national well-being. With the emergence of developing countries on the scene, time use surveys acquired a new focus. These countries saw several additional uses of these surveys, such as netting SNA work of the poor, particularly these engaged in informal and subsistence work and thereby improving workforce statistics; improving estimates of national income by getting improved data on workforce and by including subsistence production in national income statistics; drawing policy guidelines for poverty reduction, employment generation and promotion of welfare etc (Hirway 1999). Scholars in several developing countries conducted small scale time use surveys in the 1970s and 1980s covering a few villages / urban centers or a few households to illustrate the above uses of these surveys. Since the 1990s and thereafter many developing countries have conducted large or national time use surveys.

An interesting aspect of time use data thus is that over the years newer uses of the data have been discovered. In the initial stages the data were used for understanding the life style of people; in the 1960s and 1970s the data were used by broadcasting companies to design the timings of their programmes, and for planning for transportation etc; since the mid – 1970s the data are also seen to be useful in estimating the contribution of women’s unpaid work to national well being and for designing policies for gender equality. In the 1990s and thereafter developing countries have seen these data a means of improving workforce estimates particularly for informal labour and for understanding issues related to poverty, human development etc. In the recent years, the data are used by a few scholars to understand the total economy that constitutes paid (SNA) and unpaid (non-SNA) work.

**TUS (Time Use Surveys) in Developing countries**

As per the information available from different websites and sources, so far (2007-08) more than 100 countries in the world have conducted small or big time use surveys. Of these, about 40 are developed countries located in America, Australia, Asia and Europe or are transitional economies of Europe and former USSR. The rest are developing countries located in Asia, Africa and in Latin America, which are covered in this paper. These are 18 countries from Asia, 24 countries from Africa and 14 countries from Latin America. A few countries like Panama, Montero, Vietnam etc are not included for want of the detailed data (Appendix 1).

Before assessing the time use surveys in the developing economies in the Global South, it will be useful to note that time use surveys are relatively new and are not yet fully established even in developed countries. For example, about 10 developed countries (such as Greece, Luxembourg, New Zealand, South Korea, Ireland, Lithuania Slovak Republic, Estonia, etc) did not conduct any time use survey before 1990. (Srdjan Mrkic
Also, only about 22 developed countries have so far conducted 2 or more time use surveys and not all of them have institutionalized it in the sense of conducting these surveys regularly and periodically. It is also interesting to add that so far only 15 developed countries have undertaken valuation of unpaid work in separate accounts, and of these only 2-3 countries (Canada and Australia) have institutionalized these accounts (Solita Collas-Monsod 2008). In short, time use surveys are not yet fully institutionalized even in all developed countries.

Some of the earlier surveys in developing countries were conducted by research scholars, university teachers or others. These surveys were conducted in Gambia (1952), Burkina Faso (1967), Nepal (1976-77), India (1976-77), Cameroon (1976), Israel (1970), Kenya (1970s and 1988), Peru (1966) etc. In all, 12 countries conducted such surveys during the 1970s (Appendix 1). A few more countries conducted small time use surveys also in the 1980s. These surveys were small independent surveys designed for limited sectors / regions / households with specific objectives. In the 1990s, however, one observes many more countries entering the field either by conducting a systematic pilot survey or a national survey or a large scale survey which represented large regions. Between 2000 and 2007-08 several new countries, particularly from Latin America, entered this field raising the total number of developing countries with a time use survey to more than 56. Out of these 56 countries, less than half countries (27) have conducted a national survey. The rest of the countries have conducted either a small or a large survey or a pilot survey. Of these 27 countries, only 4 countries, namely Morocco, Mexico, Nicaragua and Ecuador, have conducted more than one national time use survey. Countries like Bhutan, Mongolia, China and Turkey conducted a pilot survey before they conducted their respective national / large time use surveys. In short, time use surveys in developing countries are still in the exploratory stage. These surveys are far from mainstreamed in their respective national statistical systems.

Many of these studies have been sponsored and supported financially and / or technically by UN agencies including its regional offices (ESCAP, ECA, ECLAC) and by other global organizations and donor agencies. The UN regional offices have brought out guide-books and guidelines to help their respective members to carry out time use surveys. UNDP has supported time use surveys in Sub-Saharan African countries, such as Benin, Madagascar, Mauritius, South Africa, Ghana etc; the World Bank sponsored time use surveys as a module of Living Standard Measurement Survey (LSMS) in Malawi, Sierra Leone, Mauritania, Guinea etc countries; UNIFEM / UNDP were instrumental in conducting time use surveys in Mexico, Cuba, Argentina, Chile, Ecuador, El Salvador, Guatemala, Nicaragua etc in Latin America and in Botswana, Mozambique and Zimbabwe in Africa; while FAO promoted, in collaboration with national statistical agencies, time use surveys in rural areas of four countries like Malaysia, Pakistan Indonesia. UNIFEM also helped Tanzania and Palestine in conducting time use surveys.

---

5 This is not an exhaustive list, as a few countries like Panama, Vietnam, Montero etc for which we do not have much information are not covered in this paper.

6 These guide books brought out by UN agencies include Guide to Producing Statistics on Time Use by UNSD, Integrating Unpaid Work into National Policies by UN-ESCAP, Why Should we Count Unpaid Work by UN-ECA.
A few countries like India conducted their survey without any financial or technical support from outside.

Scope of this Paper

Time use surveys in developing countries have been reviewed and assessed by several scholars in the past. These reviews include small scale reviews in selected regions, such as time use surveys in Pacific Islands organized by the regional UNDP office\(^7\), a review of UN sponsored time use surveys in Africa by Jacques Charmes, (2005) a review by ILO - Srdjan Mrkic on Time Use Statistics in the Context of Social Statistics (2008). “Explorations” of selected time use surveys in Africa, Latin America and Asia respectively by Valeria Esquivel, Nancy Folbre, Debbie Budlender and Indira Hirway etc. In addition, there are larger reviews done by scholars like Debbie Budlender (2007) and Indira Hirway (2007) and Nadeem Ilahi (2000). Debbie Budlender has reviewed critically some selected time use surveys as a part of the UNRISD research project on Political and Social Economy of Care (UNRISD 2007). The focus of the review is on unpaid care work and it was done as a part of the process of selecting countries for inclusion in the project. The purpose of the review was to critically review selected time use surveys in order to assess their quality. This review paper covers 11 countries, which have conducted large or national time use surveys\(^8\) and assesses design of the surveys, scope of the surveys, information covered, the quality of data as well as the weaknesses in data and methodology. Indira Hirway reviewed time use surveys in Global South in order to understand their implications for employment guarantee programmes. This review or the stock taking paper (Hirway 2007) aimed at understanding the implications of time use of people, and particularly their unpaid work, for designing of public employment programmes. This review of time use surveys covers 24 countries from the developing world.\(^9\). The areas of assessment are adequacy of time use surveys in providing quality data on SNA and non-SNA unpaid work, the survey design, including sampling design, time sample, data collection etc and the problems faced and resolved while conducting the surveys.

This paper is more comprehensive than the earlier reviews in terms of content and coverage. It intends to assess the status of time use surveys in developing countries with a view to understanding how far these surveys have helped in estimating and comprehending unpaid work in these economies. This has been done through an in-depth review of about 56 time use surveys in the areas of their objectives, survey design, data

---

\(^7\) Small time use surveys are also conducted in many other countries, not listed in Appendix 1. For example, a stock taking research paper by UNDP Pacifica Center has shown that several pacific islands have conducted (largely by research scholars / university department) small time use surveys. However some such surveys are not included in our list in the Appendices. Refer to Suki Beavers and Ferdinal Strobel (2008) in E-discussion Gender Net, UNDP 2008-09

\(^8\) These countries include Argentina, Brazil, Mexico, and Nicaragua from Latin America; Bangladesh, India and Korea from Asia; and Chad, Mali, Tanzania and South Africa in Africa.

\(^9\) The countries covered include Argentina, Mexico, Chile, Brazil and Nicaragua in Latin America; Benin, Guinea, Mali, Malawi, Madagascar, Mauritius, Morocco, South Africa, Kenya, Chad in Africa; and India, Nepal, Bangladesh, Thailand, Mongolia, Sri Lanka, Lao PDR and South Korea in Asia.
collection, classification etc as well as analysis of the time use data collected through the time use surveys.

Methodology of Assessment

This assessment is based on the desk research on the available literature on time use studies on the one hand and the rich first hand practical experience of the author on the other hand. The author has been involved with conducting time use surveys and analyzing time use data of different countries, discussing the issues related to time use methodologies and data analysis at different national and international forums. At the national level in India, the author headed the Technical Advisory Committee that was set up by the Government of India to design the first pilot time use survey as well as the scheme of analysis of the time use data. She was also associated later on with the revision of the time use activity classification at the all India level. Recently, the author has prepared the proposal for Mainstreaming Time Use Surveys in the national statistical system in India. (Hirway 2009).

At the international level, the author has, as a member of the Regional Resource Group on Integrating Paid and Unpaid work into National Policies, studied time use surveys in different countries and has contributed towards preparing the Guidebook on Integrating paid and unpaid work into National Policies (UN-ESCAP 2005). As a member of Several Expert Group Meetings at UNSD and UNDP. The author discussed the issues related to time use survey methodologies and contributed towards developing global time use activity classification. In addition, as a resource person on training programmes on time use studies as well as in developing courses on time use studies, the author has examined different methodological issues in conducting time use studies. And finally, as a researcher the author has analyzed Indian as well as cross country time use data and assessed the strengths and weaknesses of the data.

The developing countries, which conducted small scale time use surveys during the 1970s and 1980s covering a small number of villages, households and / or one or two

---

10 This author was a member of Expert Committee to design time use methodology and particularly a time use activity classification that would meet the specific needs to the country. The Committee has now designed a full fledged time use activity classification for India.
11 The author was involved in the drafting of this guidebook.
12 UNSD organized two EGMs for designing on time use methodology and particularly a time use activity classification in 1997 and 2000. The author was a member of both these EGMs.
13 The author was a member of two recent EGMs, namely EGM “Equal sharing of responsibilities between men and women, including care-giving in the context of HIV/AIDS” set up by United Nations Division for the Advancement of Women, and Member Expert Group Meeting (EGM) on Unpaid Work, Economic Development and Human Well-being, UNDP, 16-17 November 2008, New York.
14 These training programmes have been organized at UNIFEM – UNESCAP Bangkok, IWG GEM at University of Utah USA and in India by CSO, Government of India. The author has also been involved with designing a virtual course on TUS – SAM – CGE at IWG-GEM.
15 The author has also been involved with designing a virtual course on TUS – SAM – CGE at IWG-GEM.
16 Please refer to the References at the end of this paper.
urban centers, used a simple questionnaire based on the usual survey techniques and focused on selected one or two issues such as assessing agricultural work of women, estimating women’s informal work or measuring women’s unpaid work etc. However, when these countries started conducting national and large scale surveys they needed standard methodologies and classifications to meet their specific needs and constraints. These were not available, firstly because the available methods and classifications, designed for developed countries, did not suit them fully and secondly because no standard global methodologies of conducting time use surveys were (and are) developed to meet their needs and constraints. The developing countries therefore had to design their methods and classifications adapting from the available ones.

There were / are several constraints faced by developing countries in conducting time use surveys, and these have put constraints on their methodological choices. First of all, the low level of literacy in many developing countries has made it difficult for them to use self reporting 24-hour time diaries with 10-15 minute time slots. These countries therefore have to use alternative methods, such as the observation method or the face to face interview method to record time use in 24 hour time diaries, or the methods based on stylized questions to collect data on the time use of people. Secondly, the limited use of time pieces / clocks in remote and backward areas in many of these countries does not allow detailed reporting of the time use. They have to depend on alternative ways like linking the time use to major common events (such as, office time, school time, timings of TV/radio programmes) to help recall of time use, and using bigger time slots (i.e. 30 minutes to one hour time slots). And thirdly, being predominantly agricultural countries, these countries need seasonal data on the time use to reflect seasonal variations in the time use. This being expensive, many countries have done single day / period time use surveys and failed to provide seasonal variations in the data.

In addition, the other two constraints faced by several developing countries are lack of funds and lack of the required expertise. Poor appreciation of the utility of time use data has added to these constraints. Since conducting a time use survey is time consuming and expensive, developing countries are not very enthusiastic about spending their own funds on conducting such a survey. Most time use surveys are therefore conducted with the support from donor agencies / global UN organizations. Therefore there is always a tendency to minimize the costs. As a consequence, many developed countries face difficult trade-offs, and end up with making several “pragmatic” compromises in sample size and coverage, survey design, data collection methods etc. This pragmatic approach is reflected in reduced sample size, small time sample (and avoid collecting data by seasons), simpler methods of data collection, short list of time use activities etc. Our study will throw light on these compromises and short cuts.

The relevant question however is whether, despite the compromises, the data are of good quality and are usable, and whether they are actually used. Our framework of assessment basically includes the following questions:

- What are the objectives of the survey? Do they cover the major issues related to unpaid work of men and women?
• Do the surveys represent the entire country or a significant part of the country? Is the sample big enough to represent the time use in the countries?
• Is the reference period relevant to the time use pattern of the country’s population? Is the time sample representative of the total time of the population?
• Are the methods of data collection sound? Do they address the constraints and problems faced by these countries adequately?
• How good is the overall quality of the time use data? Are the data accurate and reliable?
• Are the data analyzed well to reflect the unpaid work in the economy? Are they used in relevant policy making?

3
Assessment of Time Use Surveys

Objectives of Time Use Surveys

There are clear differences in the objectives of conducting time use surveys in developed and developing countries. In developed countries, where it is assumed that conventional surveys are able to provide reliable estimates of the labour force, time use data are found useful in estimating non-SNA work, such as estimating and valuing unpaid work in satellite accounts, and in understanding a number of socio-economic issues such as gender inequalities, transportation, balancing family and work, loneliness of the old, social capital etc. The main objective of the survey here is frequently stated as “to collect data on the time people spend on doing various activities ranging from child care, paid work, community work and socializing” (USA, Eurostat, UK). In some cases a few major objectives are specifically mentioned: In the case of Japan and Republic of Korea, for example, “valuation of unpaid work to compile satellite accounts” is mentioned as one of the important objectives or in the case of New Zealand “measuring gender inequality in time use” is mentioned as an important objective.

In the case of developing countries, however a major objective of time use surveys is to collect data on SNA work, particularly informal work including home based work and subsistence work. This is because it is believed that the conventional labour force surveys fail to capture the uncertain, unstable and scattered informal work and exclude most of the subsistence work including collection of fuel wood and water in these economies (Hirway and Charmes 2008). Since time use surveys collect comprehensive data on how people spend their time, they are able to capture this work easily.

The most common objective of the time use surveys in 56 developing countries is “to improve workforce estimates” in the country by getting improved estimates of informal

---

17 This assumption is not fully acceptable, as informal sector is emerging in these economies also. Again, the details of different work time arrangements and what people do at the work place is not revealed by the conventional surveys in these countries.
work (employment) and subsistence work (Appendix 2). Out of these, more than 35
countries (62.5 percent) want to get improved estimate of SNA work and workers
through time use surveys. It is important to note that all African countries, 14 of the 18
Asian countries and 10 of the 16 Latin American Countries have put this as a major
objective of the time use study. This objective has been presented in different ways by
different countries. While some countries have put this in a direct manner, others have
used different words: The Lao PDR survey has stated this objective as “to measure
women’s (and men’s) participation in agriculture and in small scale business in informal
sectors”; Guinea and Madagascar have stated it as “to estimate time spent on collection
of fuel wood and water”; Indonesia and Malaysia has put it as “to estimate women’s
agrarian labour; Brazil and Zimbabwe has put it as “to understand women’s role in the
economy and society”; Guatemala and Nicaragua have put it as “to explore labour
behaviour of men and women” to design employment policies; while some African
countries have stated it as “to get better estimation and better understanding of child
labour”. This objective is relatively more important in Asian and African countries
compared to Latin American countries. The second major objective is to get accurate
estimates of “all forms of work of men and women” including unpaid domestic work and
community services. Several countries have also put valuation of unpaid domestic work
and unpaid care in satellite accounts as an important objective of the survey. Estimating
and understanding gender inequalities in the economy and the society is also stated as an
important objective of the time use survey.

The other objectives are to understand quality of life of people (China), to study status of
poverty and human development of people (Nepal, Nicaragua, India), “to collect
information on the time use patterns of different socio economic groups residing in
different regions (Palestine), “to measure happiness of people” (Bhutan), “to promote
better provision of people infected by HIV / AIDS (Botswana, Mozambique and
Zimbabwe), to estimate contribution of voluntary work etc. one more objective is “to
plan for infrastructure”, as the data show how the poor spend their time on drudgery, low
paid work etc.

Several countries have made their statistical objectives explicit. These objectives have
been stated as “to develop sound methods for the future time use surveys (India) to test
alternative methods of data collection on time use” (Pakistan, Malaysia) or to develop
globally comparable time use data (Thailand).

To sum up, the objectives of the time use surveys are in very much line with the major
needs of the developing countries. There is a clear realization that the conventional labour
force surveys are note adequate to capture informal employment and subsistence
employment prevailing in these economies, and that there is a need to estimate unpaid
non-SNA work of men and women to measure and address gender inequalities.

**Type of Time Use Survey:**

Time use surveys are basically of two types: Independent time use surveys or standalone
surveys and non-independent surveys, i.e. surveys conducted as a part (module) of a
major survey. An independent time use survey collects comprehensive information on the
time use of the reference population without missing out any details. It has three components, namely, a background schedule that collects background information of the responding household and the respondent; the time use schedule / diary that collects data on the time use of the reference 24 hours; and context variables, which provide information on the context of the time use activities. Time use surveys started out as independent surveys, largely because they collected information that was not collected through other surveys. Most developed countries at present conduct independent time use surveys. A few developing countries also have conducted an independent survey.

A number of developing countries have adopted modular time use surveys. In fact, out of the total 35 large and national surveys in developing countries, 22 surveys (63 percent) are modular surveys. It is interesting to note that modular time use surveys are more common in Latin America (9 out of 11 surveys are modular) and in Africa (9 out of 12 surveys are modular). As Appendix 1 shows, modular surveys are attached to LSMS (living standard measurement survey) survey, 4 are to labour force survey, 5 to national income and expenditure survey and 3 to national household survey. One survey is attached to a national happiness survey (Bhutan).

There are several advantages of a modular time use survey. Firstly, a modular survey is less costly as compared to an independent survey. Secondly, it needs less effort, as it is a part of a major survey. And thirdly, it is easy to institutionalize the time use survey under a large national survey. As against this, the start-up costs of an independent survey are usually large, and it is not therefore easy to institutionalize it in the national database. Also, irregular survey operations make it difficult to accumulate and absorb the knowledge and experience to achieve efficient and reliable survey results. They also limit the opportunity to develop independent technical and field staff well trained in time use methods.

A time use survey module in a survey however has a limited scope for data collection on time use. To start with, the module cannot be a very large module that can collect comprehensive data, as it is a part of a major national survey. The module tends to collect information that is related to the main survey, as its scope is restricted by the main survey. The collected information may not be adequate to understand the time use of men and women in a comprehensive manner. For example, a time use module in a labour force survey may not provide the data needed to compile satellite accounts of unpaid work, or a time use module in an income and expenditure survey may not provide the data needed to estimate and understand informal and subsistence economy. Also, most modular surveys have to use stylized questions, which ask “how much time did you spend on activities during the reference day / week” for data collection. As we shall soon see, this method has severe constraints in terms of getting good data. On the other hand, an independent time use survey collects comprehensive information on how people spend their time without missing out on any time or any activity.

There is no need to take any strong view about the superiority of independent verses modular time use survey. However, one can say that an independent time use survey can
collect comprehensive data on the time use, which have multiple uses in formulating and monitoring policies and programmes in large number of areas.

**Sampling Under Time Use Survey:**

Though small scale anthropological / sociological time use surveys throw light on micro level situations, policy formulation requires representative data at the national or sub national / regional level. However out of the 56 countries only 18 countries have conducted a national time use survey. The rest are either small sample surveys (exploratory, anthropological, covering a few villages or an urban center or two) pilot surveys or large surveys covering a region or a part of the country. They are not representative at the national level, and therefore the data cannot be treated as national level data. These data cannot be analyzed to compile reliable national level estimates. This does not at all mean that the data have no use at all. The data do throw useful light on the nature of the issues related to paid and unpaid work and gender inequalities.

The sample size of national time use surveys - stand alone as well as module based surveys- is usually small, as the surveys are time consuming and expensive. Time use samples are observed to be smaller than the national surveys, frequently reducing the sample size to an unacceptable level. This tends to raise sampling errors on the one hand and limits the possibility for disaggregated analysis on the other. Both these factors tend to reduce the utility of the data. The sample size of a time use survey can however be raised by (1) increasing the number of persons in the survey and (2) increasing the number of days of each person selected for the survey. In this context, selecting all members of the selected households (above a certain age) is a useful strategy. In fact, selecting all the members of a household also helps in understanding intra-household division of work and intra-household dynamics of sharing of work.

Out of the countries which have conducted large or national surveys (for whom the issue of representative sample is relevant), one country (Morocco)\(^{18}\) selected only women in the sample; two countries (Lao PDR and Argentina) selected only one person per household, while two countries (Palestine and South Africa) selected 2 persons at random from each of the selected households. Mongolia selected three persons from each of the selected households. The reasons for selecting a small number of persons, according to these countries, are (1) to reduce the cost of investigation and (2) to reduce the survey fatigue, on selected households. However, as Jacques Charmes has put it, this was a missed opportunity to raise the sample size and reduce the sampling error (Jacques Charmes 2005).

Selecting more than one day per person is another way of raising the sample size. Our study shows that most countries have selected one day (Yesterday) per person, frequently distributed equally across the reference week to cover weekly variant day as well as to arrive at weekly estimates of the time use. A few countries have used more than one day. Five countries (Argentina, Bolivia, Cuba, Ecuador and Turkey) have selected two days in

\(^{18}\) Indonesia, which has conducted a small time use survey also covered only women in the sample
a week – one week day and one weekend day. Mongolia and India have selected 2-3 days (if the day of the reporting is an abnormal day, a normal weekend or a week-end day is selected). Chile has selected 3 days in a week. Two countries, Guinea and Nigeria, have selected 7 days for data collection. This is however, too long a period and as observed in the Nigerian case, many respondents left the survey after 2-3 days (Ajayi 2000), as the investigator was expected to visit each person for one week to collect the data on the time spent the previous day. In the case of Guinea information on the past seven days is seen as a major hurdle in data collection. In short, the sample size can be increased by increasing the number of diary days, but the number should not so beyond two. There is a need to balance between the need to increase the sample size and the probability of getting reliable data.

It will not be out of place here to mention that there are wide variations in the reference population selected for the survey. The minimum age for the sample varies from 4 years in Malawi, 5 years in Tanzania and Ecuador to 15 years in 15 countries. In fact, the minimum age for the sample is 4, 5, 6, 7, 8, 9, 10, 12 and 15 years in different countries! There are countries where there is a maximum limit also, varying from 60, 64, 65, 70, 74 and 75. Clearly there are no standard age groups for the survey. One can think of fixing the minimum age keeping in mind the prevalence of child labour in these countries.

Reference Period and Time Sample

Reference period or the time sample of a time use survey has to be representative of the total time of the population so that the estimates are stable and reliable. For example, time use estimates for one day in a year may not be adequate to reflect the general time use of the population.

However our study shows that the time use estimates for majority of the countries are only for one period in a year (Appendix 3). Out of the 48 countries for which we have this data, 40 countries (83 percent) have time use data only for one point of time – usually one day in a year. That is, except for 8 countries, no country has collected seasonal data. Of these, a few countries have collected data for one season or for 4 – 6 months. These data are far from adequate to reflect the average time use of the respective populations in the countries. They fail to provide stable and reliable estimates on the time use pattern of people.

Neglecting seasonal or annual variations in time use thus is also a major limitation in developing countries, which still have majority of the workforce employed in the primary sector. For example, the rural time use survey in Benin was undertaken during off-season months, with the result that the results are of limited use (Charmes 2005). In short, extremely small and non-representative time samples in many countries seem to have affected the quality of time use data adversely.
Background Schedule

Background Schedule is an important component of a time use survey, as the time use data is usually analyzed with reference to the information in the background schedule. The background schedule is designed keeping in mind the objectives of the time use survey. This schedule therefore is expected to collect all the data required to analyze the time use data in the context of the objectives of the survey. For example, if an objective of the survey is to value unpaid non-SNA work, it is necessary that the background collects data on equipments and assets of the household; technologies used in cooking, cleaning, washing etc used; prevailing wages in the locality; the presence of children, old, disabled etc in the household etc; market prices of the goods produced at home etc. If the objective is also to estimate gender inequalities, the background schedule should collect information on asset ownership by men and women, decision making by men and women etc.

There are two sets of background schedules used in developing countries: In the case of modular time use surveys, the main survey can be treated as the background schedule, while in the case of independent stand-alone surveys, a background schedule is designed specifically keeping in mind the objectives of the survey. In the former case, the background schedule is determined by the main objectives of the main survey (such as labour force survey, income and expenditure survey, living standard measurement survey or any other household survey), which may not accommodate the specific objectives of the time use survey. For example, a time use module in a labour force survey will have different background data from the same in an income and expenditure survey. The subject of the main survey thus is likely to restrict the analysis of time use data. A labour force survey may not help in compiling household satellite accounts or estimate the care economy; or an income and expenditure survey may not provide the required data on estimating informal and subsistence employment. The selection of the main survey to latch on a time use survey module needs to be done carefully.

The background schedule for an independent time use survey also needs to be designed carefully keeping in mind the objectives of the survey. The literature has brought out several inadequacies of the background schedule in this context. Frequently, this schedule is designed casually without keeping in mind the data needed for valuation of unpaid work, for compilation of satellite accounts or estimating informal and subsistence workforce. In the case of India for example, there are no data on household assets to compile satellite accounts, or in the case of Mongolia there are no enough background data to estimate informal employment, in the case of Nepal there are no data to determine unpaid household SNA work. In short, developing countries have to learn to pay careful attention to background data.

Methods for Data Collection

Getting the correct and detailed response from respondents is an important part of data collection. The developed countries use self reported 24 hour time diaries, with a 10 minutes time slot, for collecting information on how people spend their time. This
method is not practical in many developing countries where the literacy levels are low
and in some cases (mainly in remote backward areas) people do not use time pieces to
report their exact time use. Consequently, these countries have to work out their strategy
for data collection carefully.

As regards methods of data collection, they have three choices: (1) to use the observation
method under which investigators observe the time behaviour of the population and
record it, (2) to use one day recall method and let investigators fill in 24 hour time diaries
by interviewing respondents or (3) to use stylized questions, i.e. list the time use activities
and let investigators ask respondents to report their time use on these activities.

The Observation Method: The experiences with the participant observation methods in
India, Nepal and Morocco have shown that this method has several problems: It makes
respondents conscious and leads them to behave differently. Also, if an investigator has
to travel with the respondent or follow him every where, a full time investigator will be
needed for each of the respondents, which may not be feasible. If the investigator has to
observe the entire household, she may find it difficult do so. Again, this method can work
only during a limited period say from 7-8 am to 7-8 pm. It may not be feasible to observe
the respondents beyond this time. This method is the least used method at present.

The Method based on Stylized Questions: Under the method based on stylized questions,
investigators present a list of activities and ask respondents to report how much time they
spent on each of those activities during the reference day (usually the previous day) or the
reference week. This list can be a short list of the activities of specific interest or a long
list covering all possible activities. It would be difficult to manage a long exhaustive list
and check that the total time adds up to 24 hours, because the respondents usually do not
reply keeping in mind the total time. Also, when simultaneous activities are included, it
becomes almost impossible to keep the total time to 24 hours. In practice therefore one
observes a short or a slightly long list but not an exhaustive list consisting of all activities.
The stylized questions are used largely when a time use module is added to a national
survey and time use data are collected about the time use on selected activities. This is
because this is a method similar to the one used in the data collection of the main survey.
This method is popular also because it is easy to operate and it avoids elaborate
chronological reporting. However, there are several problems with this approach. To start
with, it has been observed in some post-survey reviews (Madagascar, Malawi) that the
listed activities missed out several relevant activities, as the list is predetermined, and it is
not always exhaustive. Also, this method does not give information on the total time use,
for 24 hours.

Questions have been raised in the literature about the quality of the data collected through
stylized questions. The UN guide has observed that stylized questions tend to produce
results with a high degree of error. (UNSD 2005). This is because respondents under-
report the time spent on the activities that are less important or less desirable and over
report the time on the activities of low importance or of low interest. Also, respondents
may find it difficult to report the time spent on intermittent or scattered activities. Jens
Bonke (2002) as well as Kan (2005) has compared the performance of both these
methods (time diaries based on one day recall and stylized questions) at the field level.
They have observed that there are clear errors emerging from the stylized questions. The studies have shown that the error comes not only from the problems of recall but also from social desirability of the activities. Respondents tend to over-report the activities of interest and under-report the activities in which they have low interest. Kan (2006) observes that the error varies across different socioeconomic groups also. Bonke (2002) also found that the gap in the results of both the methods is larger in the case of women than in the case of men.

Another limitation of stylized questions is that they do not provide the time of the day when the activity was performed.

Two other limitations of the stylized questions are that (1) one cannot collect time use data on simultaneous activities accurately under this approach and (2) it is also not easy to use context variables efficiently under this method. The data on simultaneous activities cannot be collected satisfactory because the respondents find it difficult to provide these data, as they are not able to identify these activities and the time spent on these correctly. Similarly, respondents also find it difficult to respond to context variables, such as for whom, with whom etc while responding to stylized questions.

Recall can be a serious problem with stylized questions when the reference period is more than one day. One week reference period in the time use surveys in Nepal and Guinea is seen as a serious problem. It seems to have affected the quality of time use data to very rough approximation of the time use.

**One Day Recall Time Diary:** Under the one-day-recall based recording of the time use for the past 24 hours, interviewers ask how respondents spent their time the previous day and record all their activities comprehensively in chronological order in a time diary. This method avoids many of the problems of the stylized questions. However the role of the interviewer is critical in this approach (Hirway 2003). He/she has to get the right response without asking leading questions. He has to collect the right data without any biases. Intensive training is absolutely essential along with a well drafted instruction manual. In the absence of these, many countries are likely to produce low quality time use data.

**Lite Diary Vs Full Diary:** Under the diary approach, some surveys provide a pre-determined list of activities and ask the respondent to choose from these activities while filling in the diary, (i.e. lite diary). On the other hand some countries do not provide a list and ask respondent to describe his / her activities. Codes to these activities are assigned later on by investigators (i.e. full diary). The full diary approach is observed to be giving better results, as there is no pressure on the respondent to select an activity from the given list. However, full diary calls for lot of work on the part of coders / analysts. If the analysts / interviewers are trained to do this task, full diary could be a better alternative.

**Poor Sense of Time:** An absence of the sense of time (absence of clocks / timepieces) is another challenge in data collection. Though this challenge may not be big in most countries, some countries definitely face this challenge. This leads to approximation of the time use in rounded figures and in the widening of the time slots for data collection. Many countries therefore use one hour or half hour time slot instead of 10 minutes used in developed countries.
**Recall for one day and One Week:** In addition, there is a problem of recall. Though one day recall may be an acceptable recall, recall for one week is not likely to be reliable. Those countries, which collect time use data for the past week, tend to compromise on the quality of data.

In short, the time diary approach – self reported or recorded through interviewers is definitely a better approach of data collection under time use surveys. This approach gives more reliable results, provides comprehensive information on time-use, is amenable to the use of context variables and can collect data on simultaneous activities. Though its initial costs are high, the costs decline substantially after it is institutionalized.

**Data Collection in Selected Countries:** Our analysis of the 56 countries shows that the problem of low level of literacy is indeed a serious problem, as only 4 countries (Chile, Cuba, Turkey and Palestine –Occupied) could use self reported diaries. China, Palestine and Thailand also used self reported time diaries, but illiterates were helped either by other members of the household or pictograms in the diary. The latter created a problem as the list of pictures could not be very long. All the remaining countries used Face to Face interviews either to record time use diary the past 24 hours (13 countries) or to record the time spent on the listed activities. Six countries namely, Israel, Oman, Philippines (pilot), Brazil (small survey) and Nigeria (pilot) used self reported diaries for literate population and face to face one day recall diary for illiterate population.

Most of the countries, which used a time use module in an ongoing survey used stylized questions, as it was a method similar to the one used in the data collection of the main survey. In addition, many small surveys have also used stylized questions in data collection. In fact, this is emerging as a predominant method of data collection in time use surveys in the developing countries. However, as seen above, there is a good amount of subjectivity in the answers to these questions, as the response to stylized questions is determined not only by “recall” but also by social desirability or perception of respondents.

Collection of time use data by recording the time use chronologically through a face to face interview also is not fully satisfactory. Recall could be a problem here, as the respondent may not be able to remember the exact time spent on different activities. Most countries have therefore used longer time slots – up to half an hour to one hour, instead of the 10 minutes slot used in self reported time diaries. It is likely that the data are not fully accurate though broadly correct. In addition, as seen above the role of the interview is very critical, as he is expected to help the respondent and not lead him to increase or reduce the time spent.

The role becomes much more important when particularly people are not used to watches or time pieces. In this context (1) intensive training of investigators, (2) compilation of a detailed instruction manual for them, and (3) strong supervision and follow up are very important. Our review as well as discussions with concerned officials shows that not many countries have paid enough attention to these aspects. This was particularly true in
the case of the countries which conducted the time use surveys mainly because UN / donor agencies were willing to finance the survey.

The observation method has been used mainly in small surveys conducted by private researchers and scholars. The use of participant observation method in some of the early time use surveys was a part of the anthropological approach. Though this method was used in earlier small surveys carried out in Nepal, Brazil, India etc, it is no more popular at the national level. Only Morocco seems to be using this method as a supplementary method (to Face to Face interview for 24 hour time diary) at the national level.

In short, designing a suitable approach for data collection, given the constraints of developing countries is a major challenge in data collection. It appears that the developing countries under our review face several problems with respect to ensuring good quality time use data.

Treatment to Simultaneous Activities

Simultaneous activities are important in developing countries, for poor and women, who undertake such activities many times during a day. Information on simultaneous activities is important to design interventions for reducing time stress of the poor, particularly poor women. However, it is not easy to collect these data as it requires special efforts (people do not provide this information easily) and also not easy to analyze since it needs good analytical tools. It is not easy to decide as to how to split the time spent on simultaneous activities into different activities to reach the total of 24 hours. One practice is to first determine primary, secondary, and tertiary activities from the simultaneous activities, and to allocate the time spent on simultaneous activities among these activities according to their importance. However, it is not always clear to respondents or to interviewers as to which activity is primary or secondary or tertiary. They tend to take arbitrary decisions. The second approach is to divide the total time equally between simultaneous activities without worrying about their importance. In both cases, however there is a loss of time for activities covered. An acceptable approach could be of developing time grids for simultaneous activities and or let the total time go beyond 24 hours. This area however has not received much attention in developing countries.

Our review has shown that most countries do not collect data on simultaneous activities to avoid complications. Though we do not have complete record on this19, the available data show that only 21 countries (less than 40 percent) have collected information on simultaneous activities. Except for three countries, all of them have collected data only on one secondary / parallel activity. The collected data have been analyzed poorly by these countries: About half of them have not analyzed these data, and a few of them which have analyzed the data have not done it well. For example, the Indian time use survey collected the data but divided the time spent on simultaneous activities equally among the relevant activities to make the total time to 24 hours. On the other hand South

19 All country reports have not mentioned explicitly whether the data on simultaneous activities are collected in the survey.
Africa and Argentina have analyzed these data well to estimate the time stress experienced by respondents, particularly women.

The absence of reliable data on simultaneous activities is a hurdle in estimating and understanding the time stress of women.

**Time Use Activity Classifications**

Classification of time use activities is an important component of time use surveys, as it organizes the information on the time use in a systematic manner. Along with context variables it provides rich information on how people use their time on different activities, with reference to the objectives of time use surveys.

There are certain well established norms of good classification of activities. These are applicable to time use activity classification also: First, the classification should be comprehensive and inclusive of all activities performed by men and women. Secondly, it should be hierarchical, reflecting the different levels of activities in different digits (for example, the first digit represents the major group, the second digit represents the subgroup and so on). Thirdly, it should be compatible with other relevant classifications (in this case with the classifications of labour force statistics). Fourthly, it should be simple, easy to understand and clear. And lastly, it should facilitate valuation of unpaid work and compilation of satellite accounts of household work as well as help in estimating informal and subsistence work.

Since time use studies developed first in industrialized countries, there is a well-developed set of classifications of time use activities designed in the context of the needs of these countries. This classification divides time use activities into four broad categories: contracted time, necessary time, committed time, and free time. These four broad categories, are then divided into (1) personal care activities, (2) employment related activities, (3) education activities, (4) domestic activities, (5) child care activities, (6) purchasing goods and services, (7) voluntary work and care activities, (8) social and community interaction, and (9) recreation and leisure. These sub-groups are again divided into sub-groups and into activities. The classifications developed by Australia, Canada, Eurostat (as well as several European countries) and the United States have many similarities, though there is no strictly harmonized classification even for industrialized countries. These classifications, however, do not meet the needs of developing countries for several reasons. Firstly, industrialized countries did not give

---

20 In the 1978 Dagfinn developed a classification, which was widely used by several countries from the 1970s to 1990s. According to this framework, time spent by human beings is basically of four types, namely, necessary time (time spent on necessary activities for survival), contracted time (time that human beings spend on to fulfill the contracts that they have made), committed time (time committed to fulfill social responsibilities), and free time (the residual time left after performing contracted, committed, and necessary time).
much importance to economic activities, because they assume that they get adequate information on economic activities of people through their labour force surveys and other conventional sources. In the case of developing countries, however, one of the objectives of conducting time use surveys is to get improved estimates of work-force, particularly those engaged in the informal economy. The classifications developed by industrialized countries for economic activities therefore do not meet the needs of developing countries.

Secondly, developing countries need detailed information on subsistence economic activities including activities like collection of fuel wood, fodder, and fetching water, as well as subsistence crop cultivation and other primary activities. Since these activities are missing in the classifications of industrialized countries, developing countries need a different classification. Thirdly, details of activities in the non-economic sector required by developing countries also differ in some ways from those of developed countries. Developing countries therefore felt the need to modify the established classifications of developed countries for their time use surveys.

The United Nations Statistical Division (UNSD) organized an Expert Group Meeting (EGM) in 1997 to design a global time use classification that would meet the needs of both, developed and developing countries. It developed a trial classification (ICATUS – international classification of activities for time-use statistics), which had 10 major groups and 80 sub groups activities. Countries were required to prepare their own list of activities at three digit level (Vanek and Bediako 2000). This classification is based on the SNA framework, dividing time use activities into SNA activities (1-3 major groups), non-SNA activities (4-6 major groups), and personal care and services (7-10 major groups). This classification, however, had some conceptual problems and was not universally accepted. UNSD made another attempt in 2000 to develop an elaborate classification. This revised classification was developed further during 2000-2003. It has 15 major categories and 54 sub groups, followed by a large number of 3 and 4 digit activities (UNSD 2005). However, the 1997 classification is used by many countries, but this new classification has not been used by any country so far.

This revised classification developed by UNSD can be made comparable with the classifications developed by Canada, Australia and Eurostat (UNSD 2005), though this

---

21 The major groups are (1) employment for establishments – 7 subgroups, (2) primary production activities not for establishments – 8 subgroups, (3) services for income and other production of goods not for establishments – 9 subgroups, (4) household maintenance and shopping for own households – 9 subgroups, (5) care for children, the sick, elderly and disabled for own household – 8 subgroups, (6) community services and help to other households - 9 subgroups, (7) learning – 6 subgroups, (8) social, cultural and recreational activities – 9 subgroups, (9) mass Media use – 7 subgroups and (10) personal care and self-maintenance – 8 subgroups.

22 ICATUS Major Divisions: SNA Work is divided into (1) work for corporations, quasi-corporations, government, NPIs., (2) primary production activities, (3) non-primary production activities, (4) construction activities, (5) providing services for income., and non-SNA work:; and Non SNA work is divided into (6) providing unpaid domestic services for own final use within household, (7) providing unpaid care-giving services to household members, (8) providing community services and help to other households, (9) learning, (10) socializing and community participation, (11) attending / visiting cultural, entertainment and sports, events / venues, (12) engaging in hobbies, games and other pastime activities, (13) indoor and outdoor sports participation, (14) use of mass media, and (15) personal care and maintenance.
requires some adjustments. USA has developed a new classification recently,\textsuperscript{23} which differs in some ways from the classifications developed by Eurostat, Canada, Australia etc. An Expert Committee in India has also developed a classification keeping in mind the needs of India and developing countries, particularly in the areas of informal employment, subsistence work and also other activities.

In short, the task of developing a global time use activity classification is still unfinished.

On the empirical side our review of developing countries shows that there is a wide variety of classifications used in developing countries. In the case of small surveys, researchers have developed their own classification. Scholars and researchers who conducted small scale time use surveys that covered a few villages or a small number of households, developed their own listing of activities depending on the objective of time use surveys. These lists varied from 9 to 90 activities. For example, in Brazil, where a number of small scale surveys have been done by sociologists and anthropologists, Cebotarev (1984) and Neuma Aguir (1998 and 2001) have designed several short listings of activities (Neuma Aguir 2005). Cebotarev divided total activities into 9 major groups as follows: (1) meal preparation, (2) house / kitchen cleaning, (3) clothes – cleaning, sewing, repairing, (4) child care, (5) garden and animal care, (6) fetching wood and water, (7) household industry / commerce, (8) remunerative work and (9) resting, visiting, etc. Scholars in India and Nepal had also developed their own classifications when they conducted small scale surveys. These classifications primarily depend on the objectives of the survey, regions (rural or urban) and the socio-economic groups covered under the surveys.

Most of the national surveys, which used stylized questions, developed their own list of activities though a few of them did use the UN Classification 1997 with or without modifications. In all, 15 countries which conducted large and national surveys have used the UN Classification 1997. In fact, this classification has emerged as a popular classification in the developing world. The rest of the large and national surveys developed their own classifications. Thailand used two classifications: the UN 1997 classification as well as the classification used in Eurostat surveys. This is because Thailand wanted to produce internationally comparable time use data.

A few large and national surveys have adapted from the available classifications in developed countries. This is particularly the case when the consultants are from the North.

It is important to note that the UN Trial ICATUS 1997 is very popular with many developing countries. More than 15 countries have used this classification as the basis. However a major limitation of the UN Classification 1997 is that it is not compatible with the established workforce classification. If a major objective of time use surveys in

\textsuperscript{23} This classification has 17 major groups: (1) \textit{personal} Care, (2) household activities, (3) caring for and helping household members, (4) caring for and helping non-HH Members, (5) working and work related Activities, (6) education, (7) consumer purchases, (8) professional and personal care services, (9) HH services, (10) govt. services and civic obligations, (11) eating & drinking, (12) socializing, relaxation, leisure, (13) sports, exercise & recreation, (14) religion & spiritual activities, (15) voluntary activities, (16) telephone calls, and (17) traveling. and (17)
developing countries is to get improved estimates of the workforce and to understand the characteristics of the workforce, it is important that the TUS classification is compatible with the workforce classification, i.e. the industry classification. The 1997 classification does not permit this. Some countries (like India) did not agree with the main framework of the classification and argued that the first three groups of the classification which used ‘establishments’ to divide work in the formal and informal sectors failed to do since ‘establishments’ did not determine the formality of work and the term ‘establishment’ was too vague to be used in classifying activities. India therefore changed the first three major groups to meet its requirements. It also made changes in the other major groups to suit its needs. It also developed detailed three-digit classification to include all activities performed by Indians. It developed suitably detailed classification for (a) collecting goods like water, fuel wood, fodder, and raw material for manufacturing from common lands and forests, (b) child and other care, (c) agricultural operations, and (d) travelling for different purposes.

One major observation emerging from the review is that most developing countries have used non-comprehensive classification. This observation is in line with the observation made by Margaret Guerrero (2005 and 2008). This implies that the time use data do not provide comprehensive information on the time use of men and women in these countries. The other observation is that these surveys do not provide enough visibility to all forms of work, and particularly unpaid work of men and women. The use of stylized questions, lite diaries, short activity lists (and small samples) seem to be responsible for this. And lastly, the use of multiple classifications has reduced the cross-country comparability of time use data to an extent though some common categories do help in meaningful comparability.

**Context Variables**

Context variables are very important in time use surveys, as their proper use can enhance the value of time use data considerably. They provide critical information across all categories of activities and thereby reduce the number of total activities to a manageable level. Major context variables are broadly related to: (1) *Location of activities*: for example, whether the activity is carried out within or outside home, (2) *For whom or for what purpose*: for whom the activity is carried out, or whether the activity – production – is for self-consumption or for sale, or whether the activity is for government, private corporation/ company, public undertaking, partnership or for household sector voluntary sector, etc), (3) *With whom*: for example, whether the activity is performed with children / adults or with household member / non-household

---

24 The Indian time use classification developed the following major groups: (1) Primary Production Activities (6 sub-groups), (2) Secondary Activities (2 sub-groups), (3) Trade, Business, and services (2 sub-groups), (4) Household maintenance, management and shopping for own household, (5) Care of children, sick, elderly and disabled for own household, (6) Community services and help to other households, (7) Learning, (8) Social and cultural activities, mass media, etc, and (9) Personal care and self-maintenance.
member, etc and (4) Type of Activities: whether the activity is paid or unpaid or whether the activity is main or secondary for the performer, etc.

Context variables can help in determining whether production is subsistence or not (for sale or for own consumption), or whether the production is for the formal or informal sector (i.e. government, corporate sector / private sector, corporation, etc) or the informal sector (household units, non-profit sector, tiny sector, etc) or whether an activity is paid (i.e. directly remunerated) or unpaid (i.e. non-remunerated).

Our review of the time use surveys in developing countries shows that the potential of these variables is not really tapped in many countries: Most small surveys do not use any context variable. Also, most modular time use surveys have not used any context variable, as it is not manageable. The countries which have used context variables are among those which have an independent time use surveys using 24 hour time dairy – either self reported and recorded through a face to face interview. In all, therefore only 12 countries, less than 40 percent countries, have used context variables. All of them have conducted large or national and independent time use surveys. The data are collected in time diaries with relevant context variables. The most common context variables are where (location) or inside / outside home, paid / unpaid and with whom. The context variables like “for whom” is used by Morocco for SNA activities and “for what purpose” has been used by South Africa.

Limited use of context variables is a serious draw back, as it is a missed opportunity to add rich information to the time use data.

Response Rate in Time Use Survey

The data on the response rates are available only for some countries (20 countries) partly because the response rates are not calculated (particularly in the case of small scale surveys) and partly because these rates are not reported in the documents / papers / material that is available. Out of these 20 countries, the response rate in 15 countries more than 90 percent, reaching 99 percent in India, 96 percent in Palestine, 95 percent in Oman and Morocco and 90 percent in Nicaragua. The rate in the rest of the countries has been above 80 percent except in Chile where the rate was 78 percent.

As against this, the rate of response has been low in most developed countries. The rate is 66 percent in Australia and New Zealand and 77 percent in Canada. One main reason for the high response in developing countries appears to be the use of face to face interviews in these countries. It is not easy not to respond when the interview is available to record information. In the case of self-reported time diaries however people tend to avoid recording their time use. And secondly, interviewers substitute the non-available person with the available person (in a systematic manner) in personal interview methods. It seems that the interview method has at least one clear advantage over the self-reported diary method.
Trade-offs Faced and Quality of Time Use Statistics

Since it is not feasible to assess the quality of time use data produced in different countries for the lack of the data, this review has tried to assess the quality based on the soundness of the survey design and methods of data collection, classification of time use data, and content and coverage of the data with reference to the objectives of conducting time use surveys. That is, it has made this assessment based on the likely sources of poor quality.

In this context it is extremely important to study what are the trade-offs faced by developing countries with respect to choice of methodologies of time use survey, and how they have faced these trade-offs. A major challenge in front of developing countries is to face the trade-offs and manage the quality of time use data. The main reasons why developing countries have “to make adjustments in methodology” or “to take pragmatic decisions about conducting time use surveys” or “to choose second best methods” are the constraints and problems they face in different areas:

**Facing Low Literacy and Poor Use of Time Pieces:** Since the level of literacy is low in the country and the use of clock / timepieces is not widespread, developing countries have to use (1) face to face interview methods for data collection, (2) to use large time slots while recording time use data and (3) to devise ways to enable respondents to report the time spent by them in different activities. In some cases pictures are used to help self reporting of time diaries. These adjustments are inevitable. However, they are likely to affect the quality of the data to an extent. One can therefore say that time use statistics in developing countries are not “point estimates” (accurate to the point) and are “range (through narrow) estimates”. It will be relevant to quote the observation by Ragni Hege Kitterod and Torkia Hovde Lyngstad (2005), made on the basis of a comparative study of self reported diary and interview based diary, that self reported diary gives more accurate results. This is because (1) there is a problem of recall in the interview method (respondents are not able to give accurate data), (2) some times biases get into responses and (3) frequently very short breaks are missed out. However, the paper observes that there are no major differences in the time use patterns under the two approaches.

**Lack of Adequate Funds:** The lack of adequate funds to spend on this new, time consuming and expensive survey is another major constraint. UN bodies and other international organizations have given funds to developing countries for the purpose. It is observed however that many developing countries have adopted cost cutting strategies to reduce the cost of conducting a survey. These strategies includes (1) small sample size in terms of coverage of regions, households, and number of persons per household (2) small time sample, frequently providing unstable and non-representative time period (3) use of modular time use survey attached to an ongoing national survey (with a smaller sample), (4) use of stylized questions, that cannot provide comprehensive data on time use and cannot provide data on simultaneous equations and context variables, (5) short activity classifications, and (6) frequently low investment in training and in preparing instruction manual for conducting field surveys. All these choices are likely to affect the quality of time use data adversely.
**Limited Capacity with NSOs:** Limited capacity with national statistical office to conduct such a survey and to analyze the data meaningfully is one more constraint of developing countries. International bodies have tried to help developing countries through consultants from developed and developing world. This is not found very satisfactory in many cases. As a result, there is a problem of quality of time use data arising from the limited capacity of national statistical offices.

**Poor Appreciation of the Utility of Time Use Data:** And lastly, the absence of proper appreciation of the utility of time use data is also a constraint faced in many countries. Many national statistical offices therefore are not very enthusiastic about conducting national surveys (for example, Philippines, Brazil) or about mainstreaming this survey on the national systems (almost all developing countries).

In short, the constraints have encouraged most of the countries to compromise on the quality of time use statistics. A particular development in Latin America and Africa is worth mentioning in this context: There is a new model emerging in some of these developing countries, which Neuma Aguar calls “the Latin American Time use Research Model”\(^\text{25}\). It is argued by the funders that the European model of conducting time use surveys is too expensive (and has a bad response rate). There is therefore a need to develop a less expensive model that consists of adding a module to ongoing surveys, using stylized questions and restricting sample size and reference period (i.e. time sample). Since research costs is a matter of deep concern to donors (and national governments), “pragmatic compromises” are suggested. However, these are likely to affect the quality of the data and therefore the utility of the data adversely.

It can be argued that these compromises are made, because full fledged sound surveys are not feasible in these countries given the constraints mentioned above. These “pragmatic surveys” can pave a way for the future as they may establish the utility of the data and may help in building expertise in this area. We believe that his could be a good short term strategy, if one is aware that (1) the compromises do not allow the data to be used for meeting the main objectives of the survey and (2) there is a need to move to improved methodologies in the long run. It is possible that this short term strategy will help in policy advocacy to raise the demand for time use surveys in these countries. And this, in turn, may result into sound time use surveys in the medium and long run. One reason why countries like Philippines, Nigeria or Brazil has not moved beyond the pilot stage is that there is not enough demand for these data from stakeholders (Solita Collas-Monsod 2008).

**To Sum UP**

Our assessment shows that there are quite a few achievements made by developing countries in the field of time use surveys during the past few decades, particularly 1990

\(^{25}\) This term has been taken from the discussion at on time use studies in Latin America. Neuma Aguar has quoted this term in this discussion.
onwards. One finds rapidly growing awareness about the need to collect time use data to estimate paid and unpaid work of men and women in the economy and to measure and address gender inequalities prevailing in the society. Time use surveys, which began as small scale surveys in several developing countries in the 1970s and 1980s, are now increasingly graduating into large and national surveys. Though the specific objectives of conducting time use surveys differ to an extent, the broad objectives do not differ drastically. There is a rising awareness about the need to collect time use data to estimate and understand paid and unpaid work (“all forms of work”) of men and women.

Given the constraints arising from the specific problems faced by these countries while conducting time use surveys, each country has designed surveys in specific ways. They have made difficult choices, within the constraints and the trade-offs arising from the constraints, with respect to survey design, sampling, data collection and field operations, classification of time use activities and analysis of time use data. There is no one solution but multiple solutions emerging from different countries. These solutions are frequently emerging from “learning by doing” in these countries (Nancy Folbre 2008).

In spite of the limitations of the concepts, definitions, data collection, data analysis, classification etc, concrete data have emerged in a large number of countries on unequal sharing of paid and unpaid work by men and women in the economy. A new understanding is emerging on nature and extent of gender inequalities prevailing in these economies. (Nancy Folbre et al 2008). This dynamism indicates that these countries will be able to face the remaining challenges in the coming years.

In spite of these achievements, however, these countries have a long way to go to conduct systematic time use surveys to collect reliable data. Some of the major limitations of the time use surveys in developing countries can be listed as follows:

To start with, a large number of developing countries have conducted only small scale isolated time use surveys, usually conducted by private researchers, scholars, and frequently conducted by official agencies. More than 50 percent countries have not yet conducted a national survey either as an independent or a modular survey. Except for 4 countries, no country has conducted more than one survey so far. In short, these surveys are far from being a part of the national statistical systems in these countries.

There are serious methodological problems with respect to survey design, sampling, data collection methods, classification of activities etc: the sample is usually small and not representative at the national level, the reference period and the time sample are frequently small and unstable to represent the time use of people; the methods of data collection selected are not always likely to give accurate estimates; there are serious limitations with respect to the treatment of simultaneous activities and use of context variables and there are issues related to the classifications of time use activities used by many countries. It appears that these countries have compromised on the quality of the survey in the process of addressing the difficult trade-offs.
Analysis and Inferences for the Future

Analysis and Use of Time Use Statistics

Looking to the general objectives of time use surveys in developing countries, one would expect that time use data are analyzed: to reveal all forms of work performed by men and women and the time spent by them on this work as well as to measure unequal sharing of paid and particularly unpaid work of different categories by men and women to reflect gender inequalities, to compile valuation of unpaid non-SNA work in household satellite accounts, to estimate national workforce and understand the characteristics of the workforce, to analyze intra-household gender inequalities, and to understand some important concerns such as poverty, human development, child labour, well-being etc. One would also expect that the time use data are used in national human development reports, in assessments and analysis of poverty, in gender reports and studies on gender inequalities, and in employment planning and particularly in policy formulation for informal workers etc.

The empirical evidence however shows that there has been limited analysis of time use statistics in developing countries and poor use (i.e. non-use) of these data in official reports or in policy making. It appears that many national statistical agencies (which are usually associated with conducting time use surveys), with a few exceptions, have compiled this report with some minimum tables drawn form the time use statistics, and dumped it in a corner and is outside the purview of policy making. An interesting use of time use statistics has been made in Bhutan. This country has used time use data to estimate national happiness. It is argued that the number of working hours and the time stress, the time spent on socialization and community participation, the time spent on leisure and sports as well as the time spent on religious activities have a significant influence on the status of happiness of people. The time use data have been used to compile Happiness Index for its population.

This volume showed that women contribute a significant population of the national GDP through their unpaid work (INSTRAW 1995). Researchers at the World Bank, for example, estimated time poverty of men and women in African countries, like Benin, Burkina Faso, Madagascar, Ghana, Guinea, Malawi, South Africa, Mauritius, Kenya etc. (The World Bank 2006). These scholars have developed a concept of time poverty and estimated it for men and particularly women in Sub Saharan Africa. UNDP also has used time use data in their global Human Development Reports, particularly in HDR 1995 and HDR 2007-08. They have used these data to compile value of GDI and GEM in some countries. Researchers and scholars from universities and research institutions have also used these data – though in a very limited way. International organizations on time use research such as IATUR, CTUR, ATUS, RNTU, TURP (which are largely involved with the issues and analysis of time use data in developed countries Loraine Corner (2003) and Jacques Charmes (2005) have examined carefully the issue of the low use of time use data in policy making in developing countries. Based on the evaluation of UNIFEM work
on gender statistics in South Asia, South-east Asia and East Asia, Corner observes that there has been very little use of the data generated through national surveys / reports on gender in general and on time use surveys in particular. The major reasons for the under use of time use statistics in these countries are (1) low capacity of national statistical offices to analyze and use these data, and (2) low interests of policy makers in the issues of intra-household inequalities, and household economies and its links with the macroeconomics. She also blames poor policy advocacy for the use of the data from other stakeholders such as researchers and civil society organizations. Jacques Charmes (2005) also observes that the time use data in the selected African countries are not used well in the national level reports like Human Development Reports, Poverty Reduction Strategy papers, Gender Reports etc. Though these data can be very useful in shaping these reports as well as in policy making in these areas, national governments do not seem to be interested in using them. According to Charmes, the major reasons for this are the lack of funds and inadequate capacity in the national governments to use these data as well as the fact that many of these surveys are undertaken due to the pressure (and the funds) from donor agencies. Our review as well as experiences with some developing countries also confirms the above observations. It seems that the main reason why developing countries have been able to make only a limited use of time use data are (1) the statistical offices and policy makers have not been able to appreciate the utility of time use data, (2) the data are not recognized as usable data because there are serious problems with the quality of the data and (3) the data are not backed by harmonized concepts and methods.

Several UN agencies, international organizations and private researchers / scholars at research institutions and universities, however, have used these data in some ways. INSTATRAW made one of the first efforts to compile value of unpaid work in six countries, namely, Canada, Hungary, Nepal, Dominique Republic, Tanzania and Venezuela. It brought out a publication entitled “Measurement and Valuation of Unpaid Contribution: Accounting through Time and Output” in 1995 have encouraged a few scholars to analyze time use statistics from developing countries. Private scholars have also used these data in some countries and produced research papers – though in a very small number. The total number of scholars using time use data from developing countries is not very large. Also, these papers have made if at all limited impact on policy making at the national level.

Our review with the literature shows that there are two major problems with respect to the use of the data in policy making. The first is about the “poor respect” given to the data due to its less than satisfactory quality and / or due to the use of non-standard (not harmonized at the global level) methods of data collection, and the other problem is that the collected data are frequently not capable to give sound estimates. That is, the data are not adequate to undertake these tasks.

26 Scholars like Debbie Budlender, Valeria Equivel, Medero, Neuma Aguari etc are worth naming. In the case of India, for example, research papers have been produced by scholars from research institutions using the time use data (Chakraborty 2008, Maitra and Rai 2008, Hirway and Jose 2008, Rastogi 2008, Hirway, Saluja and Yadav 2007 etc).
Our experience shows that almost no national government has officially revised their workforce estimates based on the time use statistics so far or estimated the officially the size of the informal workforce including subsistence workforce using time use statistics. Again, no developing country has so far compiled systematic household satellite accounts of unpaid work so far. Though simple estimates have been made of the value of the unpaid work (by multiplying the time spent on this work by relevant wage rates) in a few countries like Philippines, South Africa, India, Nepal etc, the estimates are not validated by the official agencies. For example, the National Statistical Organization of Philippines estimated women’s contribution to GDP through their SNA and non-SNA work using the results of the pilot Philippino Time Use Survey 2000. The estimates indicated that women’s contribution to GDP through paid work is between 39-47 percent, while their contribution through unpaid work is about 60 percent of the GDP. These estimates however are not recognized and accepted officially (Solita Collas-Monsod 2008). Similarly, the CSO in India calculated workforce participation rates of men and women using time use statistics and also compiled value of unpaid work of women. The analysis showed that the WPRs based on the time use survey were much higher than the rates given by the conventional surveys (Vaskar Saha 2003), and the unpaid domestic work contributed 19 to 34 percent of the state domestic product (SDP) (S K Nath 2003). However these estimates have not been recognized in official statistics. In the case of Nepal, Meena Acharya compiled the value of GDP using informal and subsistence work of men and women in Nepal, but the estimates are not a part of the official data (Meena Acharya 1995). Debbie Budlender has also stated how the official agencies were upset when the time use surveys data showed a substantial rise in the national GDP (Debbie Budlender 2008).

Similarly, there are some problems with the data that do not allow their sound used. For example, a major objective of many developing economies is to estimate informal and subsistence workforce in the economy and to estimate the time spent by them on this work. The simple tables generated in several countries, such as India, Nepal, Loa PDR, Thailand, Benin, Madagascar, South Africa, Morocco, Mexico, Indonesia, Nicaragua, etc, do give larger estimates of workforce indicating large number of men and particularly women engaged in informal work as well as in collection of fuel wood and water, agriculture and animal husbandry etc. That is they provide enough evidence to show that conventional surveys under report the workforce in an economy and that time use surveys are able to get improved estimates of the workforce, intermittent, scattered and short term informal work. Time use surveys can also capture voluntary work performed by men and women.

However, these conjectures are not adequate to estimate the exact size of the informal and subsistence workforce and to understand their characteristics. In order to arrive at exact estimates of the workforce in the different sectors and activities we need additional data as follows (Hirway 2004, Hirway and Charmes 2008).

- We need appropriate context variables, to determine the work performed is formal, informal or subsistence. These variables will be (1) for whom the work is done (i.e. for government / public sector organization, private companies, cooperative unit,
small scale unit, household unit, voluntary service unit), (2) where the work is done (i.e. inside / outside home), whether it is home based and (3) for what purpose (paid / unpaid or for sale or self consumption).

- We will also need suitable classification of time use activities to determine which industry / which sector the activity is performed. This list will have to be compatible with the standard industry classification.
- We will also need a representative sample in terms of its geographical and household coverage, and
- The time sample will have to be large enough to give stable and reliable information on employment. It should also provide data on seasonal variations.

In short, it is one thing to state that time use surveys provide improved estimates of workforce and it is another thing to state the size and characteristics, as well as the value of the contribution by informal and subsistence workforce. It is not surprising therefore that so far hardly any country has produced national level estimates of informal employment and subsistence employment as per their activities and value of output (Hirway and Charmes 2008).

Cross Country Comparability of Time Use Statistics and Need for Harmonization at the Global Level

Like statistics on national income, human development, labour force, time use statistics also should be comparable across countries. Cross country comparability of these data will help in comparing these data across countries and in explaining the variations across countries in order to design policies, particularly in the areas of gender inequality, well-being, poverty etc. The comparability will particularly help in designing global level policies in these areas.

Cross country comparability of time use data depends on several factors: (1) the comparability in the basic concepts and design of the surveys and in the methods of data collection across countries (lack of comparability here can produce totally different data sets, which cannot be compared across countries), (2) the differences in the quality of investigators / interviewers or in field operations (large differences here may reduce the comparability of the data across countries) and (3) the comparability in the manner in which the data are analyzed, tabulated and presented. The first set of factors is a serious obstacle in comparing time use data, because here the nature of the differences in the data could be fundamental. The second and third set of factors are important, but are not fundamental, because the second set of factors will always be there, and though the differences can be reduced, they cannot perhaps be eliminated, and the third set of factors can be addressed by re-processing of the data.  

Our assessment of the time use surveys indicates that the comparability of the time use data is adversely affected primarily by the basic differences in the survey design, sampling (including time sample) and data collection methods. To start with, there are

---

27 This has been attempted at CTUR at Oxford University under the MTUS programme.
basic differences developing countries with respect to the survey design: some surveys are independent and national, while others are modular and small. Again, there are differences in data collection methods with some using chronological recording and covering all 24 hours, while others are stylized questions on listed activities. The geographical and household samples also differ widely with some surveys focusing on agriculture, or rural areas, while others cover one or a few urban centers only. In addition, time samples also differ widely. Some surveys produce the time use of the population for only one day in a year or one week in the year, implying totally non-representative time samples. Some other countries on the other hand have included the entire year as a reference period. Some countries include simultaneous activities, while others do not bother about this. In short, the data are basically different and cannot be compared across countries.

Indira Hirway’s study of three developing countries, namely, India, Thailand and Mongolia, observes that in the absence of harmonized methods at the global level each of these countries has developed their own survey –design, sampling data collection methods and classifications. These data are not comparable because of the basic differences in the survey design, sampling, reference period etc as well as the other differences in the details of the analysis of the data. She suggests that there is a need to harmonize at least the basic concepts and methods to ensure basic comparability of the data.

It is frequently argued that one should not worry about the comparability of time-use-data at this initial stage of development of time use studies in developing countries. What is important at this stage is to see that time use data are generated and more and countries are entering into this field. One should not worry if different countries are coming out with different survey designs, sampling and classifications. This argument is acceptable only as long as the soundness of the survey methodology is not compromised. We believe that it is important that statistically sound methodologies are used in developing economies in spite of the trade –offs.

The non-comparability arising from different levels of efficiency and capacity of statistical staffs in different countries needs to be addressed mainly by capacity building. Considering the fact that most countries depend on face to face interviews for data collection, in which the interviewer is a key figure, (1) intensive training of the staff, (2) compilation of detailed instruction manuals and (3) strong supervision and follow up have to be important components of time use surveys. As seen earlier, this is one of weak points of developing countries and it needs to be addressed effectively. The non-comparability arising from the differences in analysis and presentation of time use data is also not that serious. This can be managed easily if one intends to generate comparable data for different countries. Steps such standardization of the age groups covered, standardization of classification of activities etc will also help in enhancing the comparability.

**Harmonization of Concepts and Methods:** The above discussion finally brings us to the issue of harmonization of basic concepts, methods and classifications at the global level.
This will not only enhance cross country comparability of time use data, but it will also improve the basic quality of time use data in developing countries. Several efforts have been made in this area by UNSD and several regional offices of the UN, i.e. ESCAP, ECA and ECLAC. These organizations have produced guide books for conducting time use surveys. In addition, efforts have been made by ILO and other UN agencies, such as UNDP, UNIFEM, FAO etc. For developed countries Eurostat has taken a major step by formulating Harmonized Methodology for conducting time use surveys in European Countries.28 Recently IATUR has taken a major step by organizing a special workshop on time –use studies in developing countries.29 To borrow a quotation from Szalai, there is a need to resolve unresolved methodological issues in the collection and analysis of time use data. (Szalai 1972).

There is an urgent need to coordinate these efforts and take the process of harmonization further. We believe that global agencies like UNSD and ILO should take a lead in this process. This is an international responsibility and there organizations must take it up.

**Mainstreaming Time Use Surveys in National Statistical System**

Mainstreaming time use surveys means that (1) a national time use survey is conducted at a regular interval, (2) the results are analyzed keeping in mind the objectives of the survey and are published and accessible and (3) there is a commitment to the data in the sense that the data are used in all major national documents, such as National Human Development Reports, poverty assessment, reports on status of women etc and in policy making and policy monitoring. (Hirway 2009). Mainstreaming of time use surveys provides ample opportunities to use time series data to analyze changes and monitor developments in gender inequalities, economic changes and social changes.

Our review of the time use studies in 56 developing countries however has shown that except for four countries, no country has conducted more than one national time use survey. Even the four countries, which have conducted more than one national survey, have not necessarily mainstreamed the survey in their respective national statistical system. Mainstreaming of this survey is a goal (distant goal in some cases) in all developing countries. It will be useful to discuss how it can be achieved. Though there are no clear cut steps available, the successful and unsuccessful experiences in some countries do provide some points. It will be useful to refer to the long struggles in India and Philippines in this context.

In the case of India the pilot (large) time use survey was conducted in six major states in 1998-99. The survey report was brought out in 2000. The results, of the survey as well as papers based on the analysis of the data and the methodological issues were discussed in

---

28 Eurostat formulated Harmonized Guidelines in 2000 to cover all the countries under the EU.
29 IATUR (2008), Exploring New Grounds, IATUR has examined time use data of 24 countries here. Refer to References at the end of the paper.
two international seminar. Based on the experiences of the seminars and the lessons learnt from the survey, a third international seminar, entitled “Towards Mainstreaming Time Use Survey in the National Statistical System” was organized in 2001. After in-depth discussions on the uses, methodological issues a paper consisting of the proposal for mainstreaming of the time use survey in India has been submitted in 2008, i.e. 10 years after the pilot survey was conducted. The outcome of this proposal is awaited. (Hirway 2009).

The case of Philippines is somewhat similar (Solita Collas – Monsod 2008). Philippines has been one of the more gender sensitive countries in the region, with its relatively high GDI and GEM. The country has been the first in Asia to set up a National Commission on the Role of Filipino Women (NCRFW) in 1975. The country also has been the first in designing Gender – Responsive Development Plan 1995-2025 in Asia. The national statistical office conducted a pilot time use survey in 2000, and used these data to compile value of women’s SNA contribution to national GDP (in SNA) and non-SNA contribution in national well-being. These estimates were of course not recognized, as these were based on a small pilot survey and many approximations. In spite of these developments, however, no national time use surveys has been conducted in the country. And the main reason for this, according to Solita Collas-Monsod and the head of the NSO is “the lack of demand” for time use statistics. There is not enough evidence in the county to show how critical the data are for national policy making. It is therefore argued that there is a need to undertake strong lobbying for the survey along with showing the utility of the data.

On the basis of these experiences, one can say that the first important step towards mainstreaming time use surveys is to establish utility time use data in addressing major national concerns such as, poverty and human development, informal sector and household workers, gender inequality, care etc. No statistical agency will collect time use data just “to collect information on how men and women spend their time”. The objective has to be linked with national concerns. An important strategy here will be to use the available data to show how they address these concerns. Establishing a dialogue between the data generations and data users could be a very useful second step. It will be important to ensure “respectability” to the time use data by giving an objective critique of the available data on the one hand recommending clear measures to ensure a sound quality of data on the other hand. It will be useful if a sound set of concepts and methods are recommended to ensure good and “respectable” data. This will enhance the utility as well as the acceptability of the data. The final step would be pull the experts from the country and from outside (if necessary) to design a sound strategy and an action plan for a sound time use survey.

---

30 The first seminar was organized in December 1999 at Ahmedabad by Ministry of Statistics Government of India in collaboration with UNDP and UNIFEM at Bangkok and CFDA, Ahmedabad The report of the seminar is published by the Government of India. The second seminar was organized in 2003 on Application of Time Use Statistics by Government of India in collaboration with UNIFEM and UNDP Regional Office, New Delhi. The report of the seminar is also published by the Government of India. Refer to References.
It needs to be noted that ‘funds’ may not be a major constraint once the utility of the data is established and the sound quality of data is ensured.

**Concluding Observations**

Developing countries in Asia, Africa and Latin America have made very good progress in the field of time use surveys in the past few decades, and particularly in the past decade and a half. Time use surveys, which began as small scale surveys in 1970s and 1980s are now increasingly graduating into large and national surveys. There is a growing awareness about the importance of unpaid (SNA and non-SNA) work in these countries and the urgent need to collect time use data to address wide gender inequalities.

In spite of these achievements, however, there are serious problems with respect to the survey design, sampling, data collection as well as classifications of time use surveys. Several countries seem to have made compromises in the methodology to face the trade-offs that they have to confront in this area, frequently affecting adversely the quality of the data. It is not easy to decide whether these compromises should be allowed given the constraints of developing countries, or efforts should be made to look for sound methodologies right from the beginning. One can only say that the compromises are fine as long as there is full awareness about the limitations of the data and about the need to shift to sound survey methodologies in the future. Though there need not be a one-size-fit-all model for these countries, there is a need to focus on shifting to sound methods and reliable data in the coming years.

What is needed urgently at present is to analyze the available data to establish the utility of the data in addressing some of the critical concerns on these economies, and to move towards sounder surveys and better quality time use data. Harmonization of concepts and methods are important in this context not only to enhance cross-country comparability of the data but also to ensure the quality of the data.

In the final analysis, one can observe that a lot is achieved, but a lot more is yet to be achieved.

==========================================================================================================