Harmonized measures towards increased comparability for time-use survey statistics

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This UN Women Time-Use guidance, ***Harmonized Measures and Practical Guidance Towards Increased Comparability for Time-Use Survey Statistics***, identifies and documents good practices and lessons learned from UN Women's Women Count past experiences in time-use data collection and use. This guidance draws on experience from more than 25 countries across the regions, pooling knowledge and practical lessons to strengthen comparability.[1]

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LIST OF ACRONYMS

ACL	Activity Coding List (HETUS)
ADB	Asian Development Bank
AfDB	African Development Bank
AFD	Agence Française de Développement
ATUS	American Time Use Survey
ATUS*	Armenian Time Use Survey
CAPI	Computer Assisted Personal Interview
CATI	Computer Assisted Telephone Interview
CAUTAL	Clasificación de Actividades de Uso del Tiempo para América Latina y el Caribe
CAWI	Computer Assisted Web Interview
COICOP	Classification of Individual Consumption According to Purpose
DHS	Demographic and Health Survey
EA	Enumeration Area
ENUT	Encuesta Nacional de Uso del Tiempo (Colombia)
ERF	Economic Research Forum
EU	European Union
EUROSTAT	European Office of Statistics
ETF	European Trust Fund
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH (German Cooperation)
GSBPM	Generic Statistical Business Process Model
HBS	Household Budget Survey
HETUS	Harmonized European Time Use Survey
ICATUS	International Classification of Activities for Time Use Surveys
ICT	Information and Communication Technologies
IDN	Interamerican Development Bank
IFPRI	International Food Policy Research Institute
IHSN	International Household Survey Network
ILFS	Integrated Labour Force Survey (Tanzania)
ILO	International Labour Organization
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of all activities
KCHSP	Kenya Continuous Household Survey Programme
KTUS	Kenya Time Use Survey
LSMS	Living Standard Measurement Study
MHI	Minimum Harmonized Instrument
MICS	Multiple Indicator Cluster Survey
MTUS	Multinational Time Use Study
NSDS	National Strategy for the Development of Statistics
NSO	National Statistical Office
NTA	National Transfer Accounts
OECD	Organisation for Economic Co-operation and Development
OPS	Own-use Production of Services
PAPI	Paper Assisted Personal Interview
PSU	Primary Sampling Unit
SUT	Supply and Use Table
TUS	Time-Use Survey
UNDP	United Nations Development Programme
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Emergency Fund
UNSD	United Nations Statistics Division
ZIMSTAT	Zimbabwe National Statistics Agency

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GLOSSARY OF TERMS

Committed time: unpaid domestic and care work, unpaid care work for other households, unpaid volunteer work.

Contracted time: paid work and learning (schoolwork).

Diary: a diary is the central instrument of data collection for TUS: the 24 hours of a day are cut into 10 minutes to one-hour time slots and the respondent lists the activity or the activities he/she performed during this time slot, either successively or simultaneously. The activities are classified according to a pre-existing national or international classification. A **full diary** is a post-coding diary using a detailed classification whereas a **light diary** is a pre-coded diary using a shortened list of activities (from 15 to more than 50).

Enumeration area (or primary sampling unit): portion of the territory corresponding to the task of an enumerator during a population census (a block in urban areas, an area determined by natural limits in rural areas) and approximately comprising an equal number of households. The entire territory of a country is divided in enumeration areas for the conduct of a population census. Hence, the sampling methodology used for household surveys (during intercensal periods) consists in a random selection of these enumeration areas with a probability proportional to their size. In some countries, a **master sample** is established, which allows the random selection to be implemented on a reduced universe, representative of the whole country.

Episode: duration of an activity in continuity during the day, an episode corresponds at minimum to one time slot with only one activity when the activity is discontinued or fragmented and it corresponds to several episodes when the activity covers several time slots

Fragmentation: a given time-use activity may be performed continuously across the day, or be fragmented in numerous episodes: the more episodes in a daily activity or in a person's day, the more stressful it is for the person.

Free time: time left after subtracting necessary time, contracted time and committed time during the day: socializing, leisure.

Kish grid: a simple method for random selection of small populations using a pre-assigned table of random numbers (from the name of its inventor: Leslie Kish 1910-2000).

Left-behind self-filled diary: a diary is provided by the interviewer to the selected respondent who fills it and sends it back (or is picked back by the interviewer)

Master sample: see enumeration areas.

Modes of data collection: PAPI, CATI, CATI, CAWI

Modular: a time-use survey is said 'modular' when only a section ("a module") of a multipurpose or specific (labour force survey, income and expenditures survey) household survey is dedicated to time-use data collection.

Multitasking: doing several activities at the same time, for example: preparing meals, supervising children and socializing with visitors.

Necessary time: the time dedicated to physiological needs: sleeping, eating, other personal care.

Primary sampling unit (or enumeration area): see enumeration areas.

Satellite account: in its light version, the satellite account (now designated as 'extended account') of household production consists in a monetary valuation of the annual volume of hours spent by women and men on the various time-use activities. In its full meaning, a satellite account reconstitutes the complete set of accounts of the household institutional sector towards further inclusion in the central framework of the System of National accounts (SNA).

Sequencing: in what order are the activities performed over a 24-hour day.

Simultaneous activities (or parallel, or secondary): several time-use activities can be performed at the same time (during the same time slot). For instance, preparing meals (main activity) and listening to the radio (secondary activity), Watching TV (main) and supervising children (secondary).

Stand-alone: a time-use survey is said 'stand-alone' when the survey is entirely dedicated to time-use data collection. Another type of survey is the 'modular survey'.

Stylized questions (or questionnaires): an alternative to diaries is a listing of time-use activities (from 10 to more than a hundred) for which the respondent indicates the number of hours and minutes he/she spent on the activity over a period of a day, a week or a month. Example: How many hours and minutes did you spend on cooking past day (or past week)?

Supervisory care: time the caregiver is in hearing or visual proximity to a dependent household or family member to provide unpaid caregiving services, should such need arise.

Time poverty: the burden of unpaid work that disproportionately falls on women's shoulders hinders women's opportunities to access income-generating activities and more globally of free and personal time.

Time slot: the ex-ante defined minimum duration for recording a time-use activity in the diary.

Time-use survey (TUS): a time use survey is a household sample survey that collect information on how women and men spend their time over a 24-hour day, or a week. Time use activities cover all forms of paid and unpaid work, learning, socializing and leisure activities, personal care (including sleep and eating). TUS questionnaires are either diaries (the most common) or lists of stylized questions.

Timing: at what time of the day the various time-use activities are performed.

EXECUTIVE SUMMARY

Based on a thorough review of the latest manuals, guidebooks and methodologies produced by international organizations and on recent national experiences in time-use data collection, especially those of UN Women's Women Count Programme in a variety of countries, the present report intends to:

- Identify and document good practices and lessons learned from past experiences;
- Propose guidelines for harmonized measures of time use;
- Provide practical recommendations to enhance comparability of time-use data.

1. A *review of methodologies* for time-use data collection and their points of convergence and divergence is first conducted, based on the UNSD Guide 2024, the Minimum Harmonized Instrument or « light diary », the Eurostat HETUS Guidelines (2018) and the ILO Own-use Provision of Services (OPS) add-on light diary (2023). All these efforts converge in their recommendations on harmonisation towards increased comparability and it is useful to identify the main basic recommendations for guidance in conducting time-use surveys, especially in developing and emerging countries.

The 2024 UNSD updated handbook on time-use surveys is destined to become a companion manual for time-use statisticians. Following the various stages of the Generic Statistical Business Process Model (GSBPM), it particularly emphasises the preliminary determination of users' needs (stage 1) and dissemination of findings (stage 7). Improving these two phases of the survey process is crucial, because time-use surveys remain under-utilized, misunderstood and therefore have not found their place yet in the national statistical programming, unlike household surveys to be carried out on a regular basis. Training of users and co-construction of objectives and findings of time-use surveys with them are promising ways to enhance the utilization of TUS and support their prioritization in the future. Based on the experience of a number of TUS in various countries, the handbook provides technical and strategic solutions to difficulties and challenges encountered in conducting TUS, which despite their seniority, have only recently reached maturity as shown by the requirements for harmonisation.

The UNSD guide seeks four main objectives: (i) the promotion of time-use data collection and (ii) its sustainability through (ii) light solutions and (iv) modern technologies. Beyond technical issues, the determination of needs, potential products and their dissemination are emphasized, as well as methods for better capturing supervisory care.

The conception of a minimum harmonized instrument (the "light diary" that covers 25 activities with a set of background and contextual variables) comes together with the reflections of ILO (the light add-on module for labour force surveys with 43 activities) and Eurostat (with a light diary module for household budget surveys). It consists of summarizing the 96 to 165 groups of activities in international classifications into a short pre-coded list of 20 to 50 activities, facilitating data collection and shortening coding, while addressing the lack of funding, the modular approach and the regularity of surveys.

The promotion of time-use data collection has several implications, given that even experienced statisticians and analysts may not be familiar with or proficient in such statistics. A minimum set of tabulations, the systematic disaggregation by sex and the co-construction of tools and knowledge with data users are required for a wider and efficient dissemination of products and findings.
Lastly, new technologies should be tested in order to minimize respondents' burden and non-response rates, such as web diaries, mobile apps, geolocation and other methods of passive data collection.

While the UNSD guide is not prescriptive in order to take into account the diversity of national experiences (for instance diary vs stylized questions, sampling or not individual household members, etc.), HETUS guidelines are more prescriptive: the diary is not an option, all household members should be selected, two diary-days should be collected and a 10-minute time slot is recommended.

As to the ILO light add-on module, it is conceived as an instrument designed to inform the 3 Rs strategy and become part of quarterly or annual labour force surveys, making it possible to draw up time series on unpaid work.

2. A *review of the experiences of time-use surveys sponsored by UN Women in its Women Count Programme* is then conducted, in the light of the recommendations and suggestions of the new UNSD handbook and the ILO guidelines on unpaid provision of services. Seven countries were reviewed for Phase I-2018-2021 (Bangladesh, Colombia, Georgia, Kenya, Senegal, Tanzania/Zanzibar, Uganda) and 14 countries for Phase II-2022-2025 (Albania, Argentina, Armenia, Belarus, Egypt, Ethiopia, Kazakhstan, Kyrgyzstan, Mexico, Moldova, Morocco, Nigeria, North Macedonia, South Africa). However, only four of them have implemented or started implementation of the survey (Armenia, Belarus, Kazakhstan and Nigeria).

In order to review good practices and lessons learned from these countries' experience (and prior experience for those countries that have not yet started repetition), we will follow a grid composed of six items, in the spirit of the Generic Statistical Business Process Model (GSBPM) that distinguishes eight steps: (i) Specify needs, (ii) Design, (iii) Build, (iv) Collect, (v) Process, (vi) Analyse, (vi) Disseminate, 8) Evaluate.

To this aim all surveys are scrutinized through six items: (i) Main characteristics of the time-use surveys, (ii) Sampling methods, (iii) Weighting and imputation/adjustment procedures, (vi) Questionnaires design, (v) Indicators produced (by sex), (vi) Dissemination output and outcomes. Synthesis tables are presented in annex with bibliographical references.

Taking the best of every country' prior practices, it could be suggested that a detailed analytical report comprising methodological details understandable by a wide audience and detailed annexed tables be published as a minimum standard. Online detailed complementary tables in xls format should be made available for a wider audience, with the possibility of constructing their own tabulations by selecting specific variables to cross-cut. The detailed methodology (especially sampling and weighting) should be provided for specialists (while the methodological summary in the main report must remain accessible for non-specialists). Thematic or policy briefs (or in more developed format) on the model of Moldova would pursue the objective

of satisfying the needs of various users/stakeholders: they could be sub-contracted with academic centres on the basis of terms of reference clearly focusing on gender.

Harmonization of presentation of survey findings and tabulations is essential to allow comparisons across countries and over time and in this regard, much remains to be done. The minimum set of tables at adequate levels of ICATUS is rarely achieved and there is a need for harmonization in this domain too.
Dissemination remains the neglected stage of the process and it must be conceived since the very start when the specification of needs is discussed with the various stakeholders. Significant – yet relatively easy to implement – efforts are to be made to make data, metadata, microdata, tabulations, reports and publications available to the wider public, or to the simple visitor of NSOs' websites.

This is why it is important, from the very beginning of the process of repetition of a TUS to engage in discussions with the greatest number of stakeholders and users, to help them express their needs, to involve them in the design of the survey as well as in the analyses to come of the findings. Scholars and academics can help and should be sensitized to the conceptual framework of care and to related policy-making issues and associated to the analyses of the surveys. To this aim, interdisciplinary and inter-departmental teams should be constituted from the beginning of the process, be kept aware of the progress of the survey's implementation and plan the tabulations and analyses necessary to explore their domains so as to be ready to produce the requested reports supporting policy-making in favour of care, but also in favour of all other identified needs.

3. Guidelines towards harmonized measures on time-use and practical guidance towards increased comparability of time-use data are then presented. Keeping in mind that the main issue at stake for time-use surveys in developing and emerging countries is their under-use by policy makers, but also media and academics, which prevents them from being integrated in the regular national programmes of statistical data collection, the recommendations insist on two stages of the process: i) the sensitization operations prior to, or at the beginning of the launch of a time-use survey and ii) the dissemination phase that encompasses analysis as well as the various actions and initiatives aimed at making the findings of the time-use survey available to policy-makers, academics and the wider audience. Furthermore, recommendations towards increased comparability are addressed as well as funding gaps, given that many of the time-use surveys planned in Phase 2 have not yet been implemented because of lack of funding.

Seventy-one recommendations are presented in the report along the previous grid.

Identification of needs. Any survey that is new to the public and possibly new or not well-known to statisticians themselves must start with a preliminary identification of the needs it is expected to fulfil for users, including technical departments of Ministries (such as ministry of Labour and national women's machineries), national agencies, academics, the media and the wider public.

Initial workshops for information and sensitization should be designed to include scientific presentations of time-use surveys and national experiences with conceptual, methodological and analytical contributions. Academics and PhD students should be invited as potential speakers as well as potential users. In particular analyses of previous surveys in the country (or similar countries) may be

presented to illustrate the kinds of findings that may be relevant to potential users who are not yet aware of the usefulness of such information for their work. In this sense the list of stakeholders, especially the list of ministries, should be broader than it is usually.

Multidisciplinary working groups dedicating to specific time-use topics. A recommendation is to establish small working groups of discussion (mixing statisticians, academics and specialists in the relevant domains) that could be incentivized to meet regularly on topics to be developed on the basis of survey findings (for instance: unpaid work and women's empowerment, satellite account of household production, care needs assessment, rural infrastructure and access to water and fuel, transport infrastructure and commuting, work-life balance, well-being, etc.) and to keep them active until the dissemination phase of the TUS.

Type of approach. The *choice between stand-alone and modular surveys, as well as between full and light diaries* will increasingly arise as financial resources become tighter. In this regard, the report analyzes (in annex D) comparative time-series of time-use data collected in Japan since the mid-1970s up to now with a light diary and with a full diary in parallel since 2001. It shows that light diaries record lower time spent on unpaid work and paid work and longer time spent in leisure and personal care. The question can be raised whether the number of distinct time-use activities has an impact on the number of hours recorded for work or whether it is rather a matter of interpretation when deciding if an activity is work or leisure (for instance playing with children).

The selection of all household members is highly preferable as it allows intra-household analyses of the gender and generational distribution of unpaid work within the household.

Adjustments of results. At the very end of the correction and weighting process and despite replacements and imputations, possible distortions may appear when comparing population structures derived from the sample with those known from other sources. *Adjustments* are thus made to align the population extrapolated from the sample, with population data known from demographic sources or population projections for the year of the TUS: sex and age groups are the most common variables used for adjustment, but they can go further with urban/rural location, or also the employed/not employed population structure.

Assessing data quality is important. Given that such assessments are often missing, a qualitative approach is proposed based on a few criteria (duration of the survey, type of questionnaire, lexicon length) which allows the attribution of confidence intervals to the surveys. A more detailed approach, applied to 100 countries is also presented in Annex E.

The gender dimension. It may seem obvious, but it gets even better when it is said: a TUS is a survey dedicated to the understanding of gender gaps, not only in unpaid work, but in all other types of activity because the initial gap in unpaid work impacts paid work, but also leisure and personal care. In other words, *all findings of a TUS should be presented disaggregated by sex and gender should not be limited to a single chapter of the final report*. The gender dimension must come across all chapters and dimensions of the analysis. More than in any other statistical survey, the variable "sex" is not a variable of the same level as others such as age, location,

educational level, etc. It is a variable that must be cross-tabulated with all other collected variables.

The main outputs of TUS are:

i) a survey report that comprises the methodology, the detailed analysis and the basic detailed tables;
ii) synthesis and illustrated booklets of main findings;
iii) thematic reports and synthesis booklets on specific topics;
iv) extra tabulations on NSOs' websites;
v) do-it-yourself tables and graphs that allow users to design tables by selecting variables collected by the survey;
vi) meta-data with detailed methodology and questionnaires;
vii) micro-data made accessible to users.

The *production of thematic reports* that complement the analyses in the main report, could be tasked to the working groups of stakeholders established in the preliminary phase of TUS implementation and maintained during the whole implementation on various topics, for instance: work-life balance, commuting, sports and leisure, use of mass media and ICTs, supervisory care, wellbeing.

Several main outcomes should result from the implementation of a national TUS, in the immediate aftermath of a TUS:

i) the development of a *satellite account of household production* is all the more important as the new revision of the SNA in 2025 recommends the establishment of extended accounts (inclusive of household unpaid services work) for the compilation of GDP (Colombia 2021, Morocco 2023, Senegal 2023, Georgia 2024 and Bangladesh and Kenya 2025 in progress are notable experiences in this regard);
ii) *time poverty measures* allow assessing to what extent the disproportionate burden of homework falling on women's shoulders leaves insufficient time to dedicate to income-generating activities and globally impact on free time and personal care;
iii) *care needs assessments*, especially for early childhood and dependent elderly, that allow governments to design care policies and plan investments in early childhood infrastructures and disabled/ dependent elderly infrastructures;
iv) the *measurement of the care economy* and its assessment as a potential source of employment and economic growth. The aim is to lay the foundations for a better understanding of how the care economy works and its potential;
v) the *design of evidence-based care policies and women's empowerment policies*;
vi) the *promotion of new uses of TUS data*:
    - informing gender responsive budgeting;
    - exploring the relationship between gender and environmental sustainability; through policies addressing the reduction of time spent by women on collecting water and wood/fuel to enhance women's livelihoods;
    - addressing health issues by the analysis of the impacts of unpaid work on women's mental and physical health.

Once the final conference of presentation of the main findings of a TUS is over, activities should be planned to sustain interest in and use of the results, by mobilizing and commissioning working groups of stakeholders, civil society organisations and academics put in place at the beginning of the TUS process and maintained over the implementation of the survey. These specialised teams could be in charge of drafting reports and synthetic booklets on selected issues, work-life balance for instance.

In the longer run, a programme of publications on specific topics, using TUS data and drafted by ad-hoc commissioned multidisciplinary teams should be established in order to keep the focus on time-use data and ensure their relevance and usefulness for addressing topical issues.

Keeping interest on TUS also requires - at the least - an *easy access* to survey reports and data *on the NSOs' websites*. Practical experience gained from continuous search on NSOs' websites around the world shows that in many cases, the TUS remains well buried and difficult to access. Not to mention the cases where it is preferable to use Google search for being able to access the survey.

The role of scholars and academics in the dissemination of TUS findings should be emphasized. Means of incentivization should be found to capture the interest of the academic world, so that conferences and scientific journals can be permeated with such topics, as the first step towards disseminating TUS findings in journals and magazines with a wider audience and ultimately in the mainstream media. Grants and rewards, sponsoring participation to international conferences could be put in place for encouraging the choice of TUS topics by new generations of students.

UN Women and ILO bring expertise at conception, analysis and publication and dissemination stages, in support to NSOs, mainly thanks to programmes which they are in charge of (such as the Women Count Programme), as long as other sources of funding supplement the major cost of data collection.

Mapping the landscape of funding sources for a few recent TUS - mainly carried out under the Women Count Programme with the support of UN Women is instructive. In many cases, UN Women has played a major role of incentivization and coordination in order to mobilize other funding agencies. From this standpoint the role of UN Women lies in this function of coordination of stakeholders and their incentivization at the start and during the process of data collection and at the final stage for ensuring an enduring work, reflection and use of time-use data.

INTRODUCTION

Time-use surveys have expanded significantly in recent years and their repetition has become more common, not only in high income countries, but also in emerging as well as in low-income countries. To date, more than 100 countries across the world have conducted such surveys at national level, with more than half repeating the survey on a more or less regular basis (every year, 5-year or 10-year). (See Annex A).

Yet their use by policy-makers - and, regrettably, by researchers - is far from being satisfactory, even in ministries dedicated to gender mainstreaming and women's empowerment. Despite notable examples (such as Mexico or Kenya[1]) their use remains far below expectations and their potential for implementing the 5 Rs strategy[2]. Whereas this strategy is at the confluence of 5 main policy areas (care policies, macro-economic policies, social protection policies, labour policies, migration policies), the conduct of a time-use survey has most often led to the production of a report on statistical findings, more rarely to the compilation of satellite accounts of household production (in about 40 countries among which Mexico, Colombia, Ecuador and Peru, Morocco and Senegal, Georgia and Moldova, not to mention European and Northern American countries). Even less frequently, they have led to care needs assessments and the adoption of national gender strategies (as in Albania, Kenya) towards better work-life balance or improved quality of life. Other key policy areas dealt with are time poverty assessments likely to strengthen women's poverty alleviation policies and prevention and eradication of gender-based violence (UN 2013 and UN Women 2020).

Box 1: The five Rs strategy

In the wake of the Beijing Conference on Women in 1995, a 3 Rs strategy emerged as a product of the 2016 UN Secretary General's High-Level Panel on Women's Economic Empowerment and was developed by Diane Elson (2017) for UN Women. It summarized the objectives of the Beijing Platform of Action regarding unpaid work through 3 Rs: Recognizing-Reducing-Redistributing. Later on, with the deepening of reflections on the care economy and especially with the release of the ILO report on "Carework and care jobs for the future of decent work" in 2019 (Addati et al. 2019), two more Rs were added: Rewarding and Representing in relation with the working conditions of paid care workers in an ILO 5Rs framework (UN Women 2022). More recently, a sixth R was added (Resourcing) dealing with costing and tracking care investments, care and gender-responsive budgeting and expanding the fiscal space (UN 2024b). Governments that endorsed the Beijing Platform for Action (UN 1995) the formal commitments. In particular, Strategic Objective H.3 ("Generate and disseminate gender-disaggregated data and information for planning and evaluation") outlines specific actions that national, regional and international statistical services and relevant governmental and UN agencies in cooperation with research and documentation organizations (§206) are encouraged to undertake regarding data collection instruments related to this topic, including (§206 indents f and g): i. The development of methods, in appropriate fora, to quantitatively assess the value of unpaid work not included in national accounts, with the aim of recognizing women's economic contributions and making visible the unequal distribution of paid and unpaid work between women and men; ii. The development of an international classification of activities for time-use statistics; iii. The regular implementation of time-use surveys to quantitatively measure unpaid work, with particular attention to activities carried out simultaneously with paid or other unpaid tasks; and iv. The measurement and valuation of unpaid work for inclusion in satellite or other official accounts, prepared separately from but aligned with the core national accounts.

[1] See details in next sections.
[2] See Box 1.

Time-use surveys are nevertheless essential for advancing gender equality by highlighting the disproportionate burden of unpaid care work on women and girls. It cannot be overstated how important they are for enhancing the recognition, the reduction and redistribution of unpaid care work, as well as the reward and representation of the unpaid and paid care workers.

There are several reasons for that:

- **Limited accessibility and understanding**: Firstly, the findings of time-use surveys remain difficult to apprehend and sometimes to understand for common or even informed users.
- **Capacity gaps in analysis**: Secondly, the persons in charge of the analysis of data collected are often insufficiently aware and trained to identify the results to be highlighted. Misunderstandings and misinterpretation abound, not to mention the existence in time-use reports of chapters or sections without any engendered statistics.
- **Insufficient emphasis on the 5Rs**: Thirdly, many survey reports do not explicitly frame their findings in relation to the 5R framework, limiting their policy relevance.
- **Weak dissemination efforts**: Fourthly, once the validation workshop, with stakeholders and the media, has taken place and the official report on main findings has been released, the actions of dissemination abruptly stop and the interest aroused is diluted and fades away.

Lack of harmonization has early been identified as a key factor to be dealt with and recent efforts have been made in this direction. Even if classifications of time-use activities are converging, each country uses its own classifications for age groups and particularly minimum age, or also for identifying households with children (less than 5, 6, 7 years old, or less that 15, 16 or 17 years old) for example.

Since the UN Guide to producing statistics on time-use released in 2005 and the trial classification of time-use activities ICATUS in 2003 - the latter was updated in 2016, whereas the former was in 2024 (UN 2024a) - other initiatives have emerged:

- A UN Minimum Harmonized Instrument (MHI) was designed.
- ILO released in 2023 the 'Own-use provision of services measurement guide' (ILO 2023) for guidance on implementing the ILO related add-on module in national labour force surveys.
- ILO published a measurement guide for volunteer work in 2021 (ILO 2021).

These developments come in parallel with other converging efforts to collect time-use on a more regular basis:

- EUROSTAT updated in 2020 its guidelines for data collection (HETUS, first published in 2000) and works on a light TUS module to attach to the Income Expenditure surveys.
- UNICEF designed time-use modules to attach to the regular Multiple Indicators Cluster Surveys (MICS) but limited to women and men of reproductive age.
- The World Bank also designed a TUS module for their LSMS or Living Conditions surveys.

Other prior or parallel initiatives also deserved to be mentioned in this regard:

- The earliest is the Multinational Time Use Study (MTUS), based at University College in London, which has gathered the microdata for some sixty surveys

in 25 countries, facilitating comparative analyses based on similar definitions and background characteristics.
- OECD also maintains a database of surveys conducted by member countries, that gives rise to comparative tables.

Based on a thorough review of the latest manuals, guidebooks and methodologies produced by international organizations and on recent national experiences, especially those of the UN Women's Women Count Programme in a variety of countries, the present report intends to:

i) Identify and document good practices and lessons learned from past experiences,
ii) Propose guidelines for harmonized measures of time use, especially regarding
    - The various methodological specificities in data collection,
    - the design and use of time use activities classifications,
    - the design of diaries and household and individual questionnaires,
    - the indicators produced and the tabulation designs,
    - the main products and outcomes of TUS.
iii) Provide practical recommendations to enhance comparability of time-use data.

1. RECENT GUIDEBOOKS AND METHODOLOGIES TO COLLECT TIME-USE DATA

Besides national methodologies and the trial and seminal work by Szalaï in 1965 (published in 1972)[3], the first guidelines for time-use surveys (accompanied by a classification of time-use activities) at the multinational level were published in 2000 by HETUS (Harmonized European Time Use Surveys). This was followed by the manual published by UNSD in 2005 along with the trial ICATUS. Since then, HETUS published updates, with the last one in 2018 and UNSD finalised an update of the 2005 manual in 2024, with accompanying regional syntheses (UNECE 2013; UNESCAP 2021; ECLAC 2022). In the meantime, ILO has also published in 2023 a guidebook for the measurement of own-use provision of services.

All these handbooks converge in their recommendations on harmonisation towards increased comparability and in what follows, we attempt to identify the main basic recommendations that could be useful for guidance in conducting time-use surveys in developing and emerging countries.

1.1. Main reflections and recommendations from the latest UNSD handbook (2024)

[3] The first part of the book is dedicated to the methodology; the classification was comprised of 97 activities and the study covered one major city in 12 countries (Belgium, Bulgaria, United States, France, Hungary, Peru, Poland, Democratic Republic of Germany, Federal Republic of Germany, Czechoslovakia, U.S.S.R., Yugoslavia), for a total of 30,000 interviews, during a whole week.

The handbook is an extension of the reflections of an expert group on 'Innovative and Effective Ways to Collect Time-Use Statistics'. It comes as a complement and update of the 2005 edition and has four objectives: the "promotion of time-use data collection across countries and over time, through light solutions and the use of modern technologies to ensure … a sustainable model". It also aims at facilitating the production of extended accounts to be included in the 2025 revision of the System of National Accounts (SNA) as a way for improving the monitoring and analysis of well-being, including unpaid household work, at a time when criticisms made of conventional measures of GDP (Stiglitz, Sen and Fitoussi 2009) and reflections on progress beyond GDP (UN, 2022b) argue in favour of taking into account other dimensions of wellbeing, such as unpaid work.

Although the handbook does not indicate preference between the diary approach and the stylised questions approach, most of its recommendations concern the diary approach, which has much more potential of analyses by the provision of information on (i) duration, (ii) timing, (iii) sequencing and (iv) number of episodes of specific activities during the reference period. To-date diary-based time-use surveys are the most common and it is only in Latin America that the stylised approach still prevails.

In accordance with the issues emerging from the review of recent time-use surveys conducted in section 2, we will focus on six main considerations:

- The determination of statistical data needs at the outset of a time-use survey;
- The sampling procedures, the random selection of the days of the week and the weighting/adjustment procedures;
- The questionnaire design and in particular the capture of simultaneous activities and supervisory care;
- Specific issues related to data collection: modes of data collection, training of interviewers;
- The Minimum Harmonized Instrument or "light diary;"
- The potential products resulting from a time-use survey and the dissemination of findings.

1.1.1. Determining statistical data needs

It is often argued that time-use surveys are not prioritized in NSOs' agenda because their use by policy-makers and other stakeholders remains weak and the interest by the public does not last long. Hence the importance of the preliminary phase of identification of key data users.

Quality considerations at the outset of a time-use survey: Determining statistical data needs

Identifying key data users.
Consulting extensively with data users and stakeholders to ensure a thorough understanding of the data needs and relative priorities.
Identifying the data needs to the highest possible level of specificity (e.g. level of disaggregation).
Documenting the proposed use of the required data.
Identifying any conflicts between requirements.

Identifying alternative available data sources.
Considering whether the data needs can be accurately delivered by means of the proposed survey vehicle.

Source: UNSD handbook (2024)

First of all, in order to draw attention from a wider audience, it should be envisaged to go beyond the common users of time-use data.

These common users are the Ministries of

- Gender (time-use surveys are a major instrument in combating gender inequalities);
- Planning (satellite accounts of household production; impacts of various time-use-related policies on the labour market, public expenditure and fiscal revenues);
- Labour and Social Affairs (impacts of unpaid work on labour market participation, work–life balance, time poverty and household caregiving for disabled and elderly persons);
- Economy and Finance (satellite accounts of household production; fiscal incentives for increasing women's labour market participation; impacts of proactive care-needs policies on fiscal revenues).

Beyond these common users, other ministries and institutions can be interested in time-use data for the monitoring of their policies and strategies:

- Agriculture (production of goods for own final use is mainly related to subsistence agriculture);
- Infrastructure, public works and energy (time spent fetching water, firewood and other energy sources);
- Habitat (time spent on renovation and self-construction);
- Transport (time spent commuting to and from work and other travel and at what time of day);
- Education (time spent learning and commuting to and from school; assessing needs and capacities in early childhood care facilities and pre-primary schools);
- Health (household caregiving for the sick and elderly);
- Youth (how young women and men spend their leisure time);
- Sport (time dedicated to practising and attending sporting events);
- Culture (time dedicated to attending cultural events); and
- Information, communication, radio and television (time dedicated to listening to radio and watching television and at what time of day; use of information and communication technologies [ICTs]).

NSOs themselves can enrich their National Strategy for the Development of Statistics (NSDS) through the identification and provision of multiple SDG indicators, beyond SDG 5.4 (recognition of unpaid work), 8.5 (Full employment and decent work with equal pay), 10.2 (Social, economic and political inclusion).

Too often, preliminary workshops destined to identify time-use data needs are conceived as exercises for informing stakeholders rather than incentivising them to express their needs: NSOs should seize this opportunity for suggesting indicators that

could stimulate the interest from technical departments and institutions and co-construct these indicators for possible inclusion in the survey. Further developments could be to organise bilateral working groups to help the expression of needs and their design into possible extra stylised questions, keeping in mind the cost of additional questions and the respondents' burden.

From the intensity of these preliminary activities conducted prior to the survey will depend the intensity of interest and use of the findings by the various potential users and the publications they could engage independently from or collaboratively with NSOs (see section 1.1.6 on potential products and dissemination of findings).

1.1.2. Questionnaire design and capture of simultaneous activities and supervisory care

1.1.2.1. Contextual questions

Diaries' design is now relatively stabilised with duration of time slots open to national preference and preferred to capture the exact start and end time of activities. Most diaries have become hybrid in the sense that they are also comprised of stylised questions referring to context (with whom, for whom, where or mode of transport, market orientation) and more recently use of ICTs and even more recently affect/wellbeing/enjoyment or/and time stress/'harriedness' attached to each episode or activity (or more generally to the diary's day).

1.1.2.2. Simultaneous activities

Modern diaries include a question on simultaneous activities (what else were you doing at the same time?), generally asked for each episode immediately before or after the contextual questions. The methodology and preferably the questionnaire (see HETUS questionnaire), provides examples so that the respondent is sufficiently incited not to forget this aspect of everyday life. Supervisory care of children or disabled/elderly adults must be one of the examples provided in the diary questionnaire unless a systematic question is asked to capture this generally underestimated form of care.

1.1.2.3. Supervisory care

The UNSD guide puts emphasis on "supervisory care", an activity that is often not reported or not recorded and consequently underestimated, mainly because it is performed simultaneously with another paid or unpaid activity or also a leisure activity (for instance watching TV).

Supervisory care is captured as a 3-digit category of ICATUS ("Minding children - passive care" and "passive care of dependent adults") and 4-digit of the Latin American classification CAUTAL ("minding child aged 0-14" or "minding permanently dependent or disabled household members") as well as through the question on simultaneous activities and contextual questions ('with whom' and 'for whom'). Supervisory care is not identified as a category of HETUS.

Measuring direct care of children or dependent adults does not account for the time spent being 'on-call', ready to intervene or interact whenever needed. Should the family member in charge of caring be absent or occupied in an activity that deserves

full attention, another member of the household would have to do the supervisory care, or an external carer should be hired to do it. Furthermore, supervisory care can be a cause of stress or mental burden, all reasons that make a more exact measurement necessary.

Given the inherent underestimation of such activities the experts group in charge of updating the UNSD handbook developed a reference concept for 'supervisory care': "*Unpaid supervisory care refers to the time the caregiver is in hearing or visual proximity to a dependent household or family member to provide unpaid caregiving services, should such need arise. The provision of supervisory care does not require the active involvement implied in the provision of those caregiving services where an interaction between the caregiver and dependent household or family member is needed. Supervisory care may occur at any location where the dependent household or family member is present and in close proximity with the caregiver. There is no requirement for bodily proximity of the caregiver with the dependent household and family member, such being in the same room.*"

The measurement of supervisory care requires the inclusion of a probing or complementary question such as: "during this time, were you also in charge of supervising children or dependent adults?"

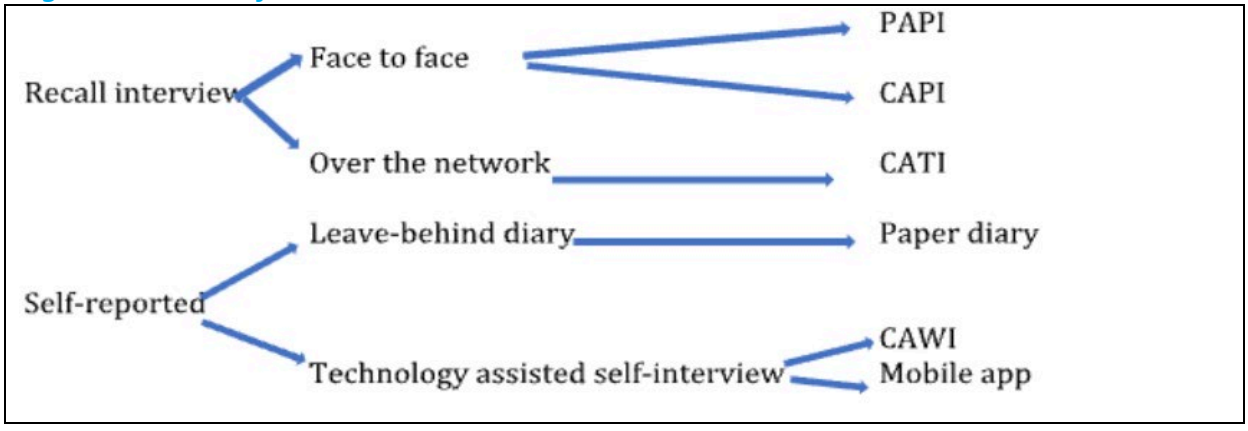
1.1.3. Specific issues related to data collection: modes of data collection, training of interviewers, tools' testing

Time-use surveys are relatively recent in emerging and developing countries and NSOs are still lacking experience in this domain. Furthermore, in many developing countries, the proportion of illiterate population remains high so that the questionnaires cannot be filled by the respondents themselves, not to mention the deficient infrastructures that can make difficult the use of ICTs. Hence the importance of the choice of mode of data collection and of the training of interviewers.

1.1.3.1. Modes of data collection

Discussions on modes of data collection are tightly linked with declining trends in response rates. Figure 1 synthesizes the various modes, disregarding the experience sampling method and the observation modes with wearable devices or other technologies.

Figure 1: Modes of data collection



Notes: PAPI Paper Assisted Personal Interview; CAPI Computer Assisted Personal Interview; CATI Computer Assisted Telephone Interview; CAWI Computer Assisted Web Interview

Face-to-face interviews remain the adequate mode of data collection in most of emerging and developing countries. One of their advantages is that well-trained interviewers can interact with the respondents to help them reconstituting their day and fill out the questionnaire accurately. Conversely, self-reported diaries or questionnaires avoid that the respondent be influenced by the interviewer or the interviewer's presence have an incidence on responses.

In many of these categories of countries the computer-assisted personal interviews (CAPI) have replaced the traditional paper-assisted personal interviews (PAPI), which presents several advantages in that software can provide support to interviewers (notes, examples, checks, validation, added coding software for classifications), improve the quality of responses and bridge the gap between data collection and the reporting phase. An inconvenience is that in situations where self-reported diaries can be used (in urban areas or wealthy suburbs, or simply when respondents agree with the self-response mode) and mixed mode become an option, return to PAPI may seem a regression given that computer-assisted web interviews (CAWI) or through mobile app are not often possible as it requires literacy and reliable access to the internet. Finally, the COVID 19 pandemic was an opportunity for testing computer-assisted telephone interviews (CATI) in order to avoid face-to-face between interviewers and respondents. But this is only possible after ensuring that the respondent can be contacted through telephone and agrees with it. In most cases, the telephone directory cannot be used as a sampling frame for selecting the sample. Selected respondents must be met at one point of time to be informed about the survey and accept the telephone interview.

1.1.3.2. Training of interviewers

Whatever the mode of data collection, time-use surveys required that a particular attention be given to the training of interviewers and other field staff. Not only time is an unusual object in regular household surveys, but it is also an abstract concept that implies a deep knowledge and understanding of the classification of time-use activities. Interviewers' manuals must include many concrete examples of what the notion of time means and how people represent and measure it in different contexts. Testing is of outmost importance during the training.

1.1.3.3. Tools' testing

Even when the training of interviewers and of all the staff of the time-use survey has been given the highest priority and rigorously addressed, the preliminary testing of the tools (diary, questionnaire and mode of data collection, whatever it is) is essential. It can take the form of pre-testing, small-scale piloting of field procedures and data collection, or full pilot survey on a substantial sample.

Interviewers can experiment the questionnaire/diary on themselves or family members or relationships (generally during the phase of training) to ensure a uniform understanding of the concepts and wording of the questions. Cognitive testing, focus groups and in-depth semi-structured interviews can also be used. But field or pilot testing are separate from interviewers' training, because they require to be already familiar with the survey. Full-scale pilot surveys on substantial samples, in

urban and rural locations, can help revising and adapting the survey tools, especially in large countries.

1.1.4. Sampling procedures and weighting/adjustment procedures

Details of sampling, weighting and adjustment should be provided in the survey reports.

1.1.4.1. Sampling

Stratified two-stage cluster sampling is the usual method used for selecting households and NSOs are familiar with it.

Practices differ in selecting eligible members within the selected households. The UNSD handbook favours the selection of all members aged 15+, a solution which, in addition, allows intra-household analyses of the ways by which unpaid domestic and care work is shared among all family members.

However, the surveyed population of a time-use survey comprises two dimensions: the person or "population of interest" dimension and the time dimension. The unit of analysis is a measure of person-time, which is typically expressed in person-days or person-weeks over a year.

In practice, the incorporation of the time dimension within the sample design is achieved by randomizing the preassignment of sample units to one or more designated "diary days".

1.1.4.2. Weighting

"Estimation weights are attached to respondent records to produce estimates of the population. The estimation process accounts for sampling by creating weights that are the inverse of the probability of selection (base weights). In most household surveys, a base weight is a measure of the approximate number of people that the sampled person represents (…). Time-use surveys sample person-days, not people. (…) Since the unit sampled is a person-day, each person-day has its own base weight." (UNSD Handbook 2024).

An additional weighting factor must be introduced to account for the sampling of time periods (weekday/weekend day). In general, the time weighting factor is the number of eligible time units in the period divided by the number of these units for which the person is sampled.

The formulation of the time-dimension weight allows time periods to be sampled using different selection criteria. For example, if one weekday and one weekend day are sampled for a person, then the two periods have different weights. The appropriate weight for a weekday would be the number of weekdays in the year, while the corresponding weight for the weekend day would be the number of weekend days in the year. Each record on the person/day data file would have the single weight that is appropriate for that day.

1.1.4.3. Adjustments

"These base weights are then adjusted to account for sampled units that do not respond (non-response adjusted weights) and may be further adjusted to make the estimates consistent with known population totals, such as the number of persons in the country, by age and sex. For time-diary surveys, the weights should add up to the number of person-days and should be adjusted to ensure correct day-of-week representation. (…) How days are sampled will affect how weighting is done. If particular days of the week are over- or under-sampled, the weights will need to account for this." (UNSD Handbook 2024).

1.1.5. The Minimum Harmonized Instrument or "light diary"

Time-use surveys, especially stand-alone surveys, are costly in terms of financial and human resources. The modular approach is an alternative that helps to reduce costs and align data collection on time use with the periodicity of the parent survey. It is nonetheless doubtful that NSOs would be in position of repeating a stand-alone time-use survey every year (to-date, the American time use survey - ATUS - is the only one to be conducted on an annual basis). This is why the methodology of light diaries has emerged as an adequate solution for balancing costs and the required level of detailed time-use data. The light diary is particularly suitable for the modular approach and capable of producing annual indicators between two stand-alone time-use surveys with full diaries.

A light diary is a diary in which a pre-listing of activities is provided in the questionnaire so that respondents or interviewers can easily select the corresponding activity rather than transcribing it with their own words on the diary. The principle lies in the reduction/summary of the classification of time-use activities into a shorter list of activities that is easier to handle and aligns with with users' needs. Tables 1 and 2 show examples of light diaries' classifications: Japan's time-use survey is comprised of two questionnaires, one with a full diary and a second one with a light diary including 20 groups of activities (Table 1 presents the list of activities in the light diary and annex D displays a comparison of findings resulting from the full and the light diary). The World Bank Living Standard Measurement Study (LSMS) developed a modular light diary in 30 groups of activities[4], emphasising productive non-market activities in the SNA production boundary (Table 2 presents the example of Cambodia LSMS plus questionnaire in 2019 in 25 activities). The ILO add-on modular light diary is comprised of 45 groups of activities (Table 5 in section 1.3). The optional light diary developed by UNICEF for its Multiple Indicator Cluster Survey (MICS) is not retained here, as the population age group is limited to those of reproductive age (and children). Moreover, it does not distinguish unpaid work activities, instead using the category "work-related activities and chores" and even recommends not attempting to disaggregate such information within the time-use module. Table 3 compares the main time-use activities classifications at 1-digit level (ICATUS, HETUS, CAUTAL)[5] with the proposed Minimum Harmonized Instrument (MHI) which is comprised of 25 activities.

[4] Developed by Harvey and Taylor in chapter 22 of Grosh and Glewwe (2000).

[5] ICATUS 2016 is comprised of 9 major divisions, 56 divisions and 165 groups.
HETUS (Activity Coding List ACL) 2018 is comprised of 10 major divisions, 32 divisions and 116 groups. CAUTAL 2016 is comprised of 9 major divisions, 34 divisions, 96 groups and 23 subgroups, the latter being exclusively attached to unpaid care of household members. It should be noted that countries may adapt national classifications on the basis of one of these three main structures. For instance, in Mexico, the adaptation made by INEGI aimed to align ICATUS with the Mexican context while maintaining the structure and guiding principles established by the UN, thereby ensuring international comparability and a table of correspondences is made available.

The light diary method consists in selecting those time-use activities at 2-digit level (and sometimes at 3-digit level) that are most relevant for the analysis of unpaid domestic work and unpaid care work on the one hand (for instance the main functions of unpaid services work (nutrition, housing, clothing, caring and transport), social life and leisure activities on the other hand (for instance socialising, community activities, culture, sports, use of mass media) and lastly personal care (sleeping, eating, personal hygiene) and travelling.

MHI suggested by the UNSD handbook retains 25 groups of activities which are described in concrete terms, straightforwardly understandable by the respondent and summarizing the details of the 3-digit level in a single activity at 2-digit level. For example, item 7 “Washing, ironing, hanging clothes to dry, mending clothes or cleaning footwear” replaces division 34 of ICATUS “Care and maintenance of textiles and footwear” by summarizing its 5 constituting groups: 341 “Hand/machine-washing”, 342 “Drying; hanging out, bringing in wash”, 343 “Ironing/pressing/folding”, 344 “Mending/ repairing and care of clothes and shoes; cleaning and polishing shoes” and 349 “Other activities related to care of textiles and footwear”.

The practical aspect of the light diary is that it makes it easy for the respondent or/and the interviewer to select the activity code corresponding to the actual declared activity (either main or secondary/simultaneous) for each time slot of the 24-hour day, because the list is short and can be scrolled down as often as necessary and because it is formulated in concrete terms while the 1-digit aggregates may be more abstract. The pre-coded shortened list of time-use activities reduces the respondents’ burden, limits the risks of misclassification and spares time and manual errors of the coding phase, when spontaneously declared activities are attributed an individual ICATUS code.

Of course, a natural way of limiting the number of divisions of the classification is to reduce commuting and travelling to a single division rather than attaching them to their related activities (work, school, housework, care, etc.) like in ICATUS. This could become, however, an issue for comparisons of major divisions at international level and over time, unless additional questions are included, because in ICATUS, commuting/travelling time is generally included in the indicator depicting a given activity (paid work, or unpaid work for instance).

The MHI’s classification is accompanied by the usual list of contextual variables (for whom, with whom, where/mode of transport, market orientation, use of ICTs) and by a suggested minimum list and additional list (as relevant in national context) of priority background characteristics to be collected at household level and at individual level (Table 4). It should be noted that, in case of modular approach, it can be advisable to collect these priority characteristics rather than relying on the parent survey, because of potential distortions introduced by proxy respondents (as there cannot be proxy respondents in a time-use survey).

Table 1: Japan's light time-use module

1	Sleep
2	Personal care
3	Meals
4	Commuting to and from school or work
5	Work
6	School work
7	Housework
8	Caring or nursing
9	Child care
10	Shopping
11	Moving (excluding commuting)
12	Watching TV, listening to the radio, reading newspapers or magazines
13	Rest and relaxation
14	Learning, self-education and training (except for school work)
15	Hobbies and amusements
16	Sports
17	Volunteer and social activities
18	Social life
19	Medical examination or treatment
20	Other activities

Source: Statistical Bureau of Japan, 2021, Survey on time Use and Leisure Activities, Questionnaire A. https://www.stat.go.jp/english/data/shakai/2021/gaiyo.html#Questionnaire. See questionnaire design in Annex D.

Table 2: World Bank's LSMS light time-use module

1	Sleeping and resting
2	Eating and drinking
3	Personal care
4	School (and homework)
5	Work for wage, salary, commission or in-kind payment (including paid apprenticeship)
6	Run, work or help in a non-agricultural and non-fishing household business
7	Work for other household free of charge as exchange laborer
8	Farming
9	Livestock
10	Fishing
11	Hunt or gather foodstuffs
12	Buy food or other items or obtain services
13	Make goods (furniture, pottery, baskets, clothing)
14	Cook or prepare food or drinks to prepare them
15	Collect firewood or other natural products
16	Fetch water from natural or public sources
17	Clean the house, wash or iron
18	Household maintenance or own-construction work (e.g. renovate, extend or build the household's dwelling)
19	Provide care or assistance to adults (18+)
20	Look after children (17 or younger)
21	Plan the household's finances or bills
22	Travelling and commuting
23	Watching TV/listening to radio/reading
23	Exercising
24	Social or religious activities and hobbies
25	Other

Source: Cambodia LSMS Plus 2019, https://microdata.worldbank.org/index.php/catalog/4045/related-material

Table 3: Main time-use activities classifications and the Minimum Harmonized Instrument (MHI) at 1-digit

No	ICATUS	HETUS	CAUTAL	MHI
1.	1. Employment and related activities	1. Employment	1. Employment and related activities	1. Working for pay or doing activities to generate an income for yourself or your family
2.	2. Production of goods for own final use		2. Own-use goods production	2. Unpaid activities done to produce goods for use by your household or family
3.	3. Unpaid domestic services for household and family members	3. Household and family care	3. Unpaid domestic work for own household	4. Cooking, preparing or heating meals, setting up or clearing the table or washing the dishes 5. Cleaning the inside or outside of the dwelling; disposal of garbage or recycling, watering plants 6. Making minor repairs to the dwelling, repairing or maintaining furniture, appliances or household vehicles 7. Washing, ironing, hanging clothes to dry, mending clothes or cleaning footwear 8. Budgeting, paying bills, organizing or planning household-related activities or completing administrative forms such as passports, contracts, applications or collecting social programme benefits 9. Taking care of a family pet, feeding, bathing, taking them for walks, cleaning their space or using veterinary or pet services 10. Buying household supplies, food or clothing for family members, when done in person or online
4.	4. Unpaid caregiving services for household and family members		4. Unpaid care of household members	11. Taking care of children in your household or family by feeding, dressing, putting to bed, talking, playing, assisting or supervising homework or school activity, accompanying to appointments, providing health care 12. Taking care of adults in your household or family by feeding, bathing, dressing, putting to bed, talking, listening, providing or planning for health-care services or helping with personal business management
5.	5. Unpaid volunteer, trainee and other unpaid work	4. Voluntary work and meetings	5. Unpaid work for other households or the community and volunteering	3. Helping neighbours, friends or others without receiving payment
6.	6. Learning	2. Study	6. Learning and study	13. Education, attending classes or courses on-site or online or education-related assignments, homework
7.	7. Socializing and communication, community participation and religious practice	5. Social life and entertainment 6. Sports and outdoor activities	7. Socializing and leisure activities	14. Getting together with others for social purposes, talking, chatting, writing or reading personal emails or texts 15. Joining in community festivities or events, attending civil obligations or participating in religious celebrations or practices
8.	8. Culture, leisure, mass-media and sports practices	7. Hobbies 8. Mass media	8. Use of communication media	16. Attending cultural, entertainment or sports events 17. Participating in hobbies such as painting, music or photography, playing games, or relaxing 18. Participating in a sport or exercise 19. Reading for leisure (e.g. newspapers, books, e-books, social media, magazines) 20. Watching television, listening to the radio or streaming
9.	9. Self-care and maintenance	0. Personal care	9. Self-care	21. Sleeping 22. Eating or drinking 23. Own personal hygiene, such as showering, getting dressed, getting a haircut or personal health care, including resting, being sick or visiting doctors or specialists
10.		9. Travel		24. Travelling to and from places
11.				25. Other (activities not listed or unknown)

Table 4: Priority background characteristics for time-use data collection

Priority background characteristics for time-use data collection Household level	All persons eligible as time-use respondents
Minimum	
Household size Household composition: classification based on age and sex Place of residence (urban/rural) Household income	Age Sex Marital status* Educational attainment* Current school attendance (and grade)* Current employment status* Labour force status* Labour force status of spouse/partner*
Additional as relevant in national context	
Access and use of care services Presence of persons requiring help with daily living activities Access to utilities Household wealth	Disability status* Race/ethnicity General health status Access to timekeeping devices*

Source: UNSD 2024, Table II.5.
Note: * Only individuals selected as respondents.

1.1.6. The potential products resulting from a time-use survey and the dissemination of findings

1.1.6.1. Key survey outputs

Key survey outputs are:

i) for duration:
   - the total number of hours spent on an activity by the total population,
   - the proportion of persons participating in an activity,
   - the average number of hours spent on an activity by participants,
   - the proportion of time spent on an activity per day;

ii) for timing and sequencing, indicators that help to measure time pressure and time fragmentation:
   - the average duration of an episode,
   - the average number of episodes,
   - the average number of episodes among participants;

iii) all these indicators must be presented by sex (without exception) and by age group, marital status, education level, current school attendance, current employment and labour force status of respondents, residence (urban/rural), household composition and household income. Each variable should be presented singularly by sex and depending on sample size and survey representativeness by sex cross-tabulated with another variable (for instance age group and residence).

Three types of tables can be distinguished:

i) working tables, such as time spent by population, by participants and participation rates by detailed activities at 1-, 2- and 3-digit of ICATUS;
ii) simultaneous activities tables;

iii) thematic tables by major divisions for instance and entering into the details of sub-divisions and groups, or also aggregating all types of unpaid work and distinguishing SNA unpaid work and non-SNA unpaid work.

1.1.6.2. Dissemination

Dissemination should be planned from the very beginning. The importance of involving stakeholders, technical departments and partners from the onset was already noted out in identifying needs, prior to the determination of the scope and coverage of the survey and the design of instruments.

Multilateral (sensitization workshops) and bilateral meetings with potential users help to determine the future modes, format and content of dissemination, in particular a basic set of tables, a comprehensive report including analyses of all variables and detailing the methodology. A summary of the methodology can also be prepared as a users' guide.

Beyond these basics, a co-construction of knowledge should be implemented with key stakeholders and possibly involving scholars and researchers in order to produce sectoral publications that fit with users' needs.

Tables are typically shared as downloadable files in a spreadsheet format (either Excel or csv file) but may also be shared as a pdf file. Summaries may be described in a news item or blog post but should also be available for users to download. Extra cross-tabulations should be made possible, for instance by providing a 'make yourself your own tables' on-line tabulation instrument that allows to operate various cross-classifications by selecting the suitable collected variables.

"Liaising with data users directly can help communications staff better understand the policy issues and the data needs, supporting data "storytelling". Data should be presented in a way that makes sense to non-experts—for example, describing an average weekday or weekend day, or the time people spend per week on an activity. If an average number of minutes per day is low because people don't do the activity every day, it might be more instructive to convert it to time per week or month. Even policy analysts that are accustomed to interpreting statistics may be less proficient with time-use statistics than other types, so they may not be able to just look at tables and understand what they mean; they need results explained to them." (UNSD handbook 2024).

NSOs may undertake training sessions for users, given that the use of time-use data and particularly microdata needs a perfect understanding of what lies behind the methodology and the sampling-weighting and adjustment procedures, even from highly competent users.

The mobilisation of communication specialists – as presenters among others - in dissemination seminars and workshops, or as responsible for blog posts of NSOs or other stakeholders' websites is also recommended in order to reach the "general public". But the use of time-use data also needs to be more accessible and understandable by the media.

1.2. Additional recommendations extracted from HETUS guidelines (2020)

Many of the HETUS 2020 updated guidelines can be retrieved in the UNSD 2024 handbook.

For instance, the guidelines put emphasis on the capture of subjective well-being or satisfaction with the way people spend their day and also on the use of ICTs.

The guidelines also stress 'simplification': reducing the number of questions in the household and individual questionnaires.

Eurostat is running a project on modernising Household Budget Surveys and TUS focusing on new tools and sources of data collection to decrease the burden on respondents and NSOs. These new ways of collection are destined to complement the traditional ones in the near future, e.g. web diaries, mobile apps, geolocation or other ways of passive data collection. The UNSD handbook also focus on these new techniques but they are generally more feasible in developed countries of Europe and their neighbourhoods than in other regions of the world due to the concerns over accessibility for women with low digital literacy or access to the internet in developing nations. However, mixed modes (for instance CAPI and CAWI or CATI) can be implemented depending on the various socio-economic contexts of developing countries.

We list below some main recommendations extracted from HETUS guidelines, that can be helpful for this guide:

- It is recommended that the highest priority be given to individual observations and to minimising individual non-response.
- It is recommended that all members of the household (all households within a dwelling) be included in the sample. To make it possible to analyse intra-household dependencies, data on the time use of households are needed (i.e. there must be data concerning all household members).
- It is recommended to use two diary days, i.e. one weekday (Monday-Friday) and one weekend-day (Saturday or Sunday)[6] randomly sampled over the whole year (365 days).
- It is strongly recommended that diary days/ dates be allocated to households/ individuals by a controlled random procedure.
- It is recommended that the survey days/ dates be representative of and that they cover a full 12-month period (i.e. 365 consecutive days, preferably including potentially "problematic" days and periods, e.g. cultural and religious festivals.
- Postponement should be kept to a minimum;
- The diary is structured as follows: the cover page with administrative items is followed by two pages of instructions, three pages of examples, the 24-hour-day diary, some questions at the end and a checklist. Each respondent receives two diaries, one for a weekday and the other for a weekend day.

  If the diary is to be adapted in any way, it is important to follow these recommendations:
- Time slots: It is recommended that the diary uses fixed 10-minute time slots.
- Secondary activities: It is recommended that a "secondary activities" column is included in the diary.

[6] Friday and Saturday in Arab countries.

- Information and communication technology (ICT): It is recommended that a new ICT column is included in the diary. This is where respondents mark, for each activity, if they were using a computer, smartphone, tablet or similar device.
- With whom column: It is recommended that the diary includes a "with whom" column.
- Location: It is recommended that a "location/ mode of transport" column is included in the diary.
- EUROSTAT does not propose an additional column for self-assessed "well-being/ satisfaction" in the model diary for HETUS wave 2020. On the other hand, four new questions (questions 4, 5, 6 and 7) are included at the end of the diary, which ask about the most pleasant/ unpleasant/ stressful activity during the diary day; as well as about an overall appreciation of the diary day by the respondent.
- An approach that has proven successful is to fill in an "example diary" with the respondent, using the respondent's activities from the previous day.

We can also note that the HETUS programme on "innovative tools and sources for Household Budget Surveys and Time Use surveys" has tested the light diary approach in Bulgaria in 2018 (See Annex D 2)

1.3. ILO Own-Use Provision of Services (OPS) add-on light diary

Unpaid work comprises two components: own-use production of goods (already included in GDP and now as a category of labour force) and own-use production of services (domestic and care services). Because the production of goods for own final use is already addressed, the ILO guidelines focus on own-use provision (production) of services. However, the module is comprehensively designed to collect all time use activities taking place within a 24-hour day.

With the realignment of labour statistics to the SNA general production boundary in 2013 (19th ICLS resolution on work, employment and labour underutilization) the scope of labour statistics was expanded and unpaid household services work was brought into it leading ILO to specify definitions and provide guidelines for measurement (ILO 2023).

In detailing the scope of the survey module, the ILO guide explicitly refers to the 3Rs strategy: Data "can directly inform policies to expand labour market participation, promote gender equality in the workplace, address gender pay-gaps, decent work deficits, excessive work burdens and time poverty". "They can also inform wider investments in the care economy (…) and in public infrastructure and basic services (e.g. piped water and sanitation, electricity, cooking fuel, public transport) *to reduce or redistribute own-use of services work*". And over time, with repetitions of the module, it can be used for monitoring and evaluating policy changes and the impacts of investments. Data can also support valuation exercises on the contribution of own-use provision of services to GDP and in particular on "transitions from household-based provision of services to market-based provision".

Logically, ILO designed a 'hybrid' light diary module combined with a set of stylised questions to be attached to a labour force survey and implemented in low- and middle-income countries, through face-to-face interview using the CAPI tool. The

diary uses fixed episodes and usual contextual questions: with whom, for whom, where, with optional additional contextual questions such as : (i) mode of transport (activated for travel episodes and activities occurring in-transit), (ii) use of information or communication technology (ICT), (iii) affect / wellbeing / enjoyment, (iv) time-stress or "harriedness".

As mentioned above, the module is intended to measure own-use provision of services, which constitutes the extension of the definition of work, provided that the own-use production of goods is already taken into account in SNA and labour force statistics. At the same time, as a diary it captures all forms of work as well as leisure and personal care activities.

To this aim, ILO developed a simplified classification of time-use activities in 43 divisions (41, if the divisions "other" and "don't know" are excluded) (Table 5).

Nine divisions are dedicated to unpaid domestic services and seven to unpaid care services (of which two for supervisory care (of children and of adults), that allow to inform 4 activity clusters: i) household management; ii) preparing meals; iii) cleaning and maintaining dwelling, durables and other goods; iv) childcare and caring of the elderly and other dependent members. These sixteen divisions circumscribing OPS are *italicised* in Table 5.

Table 5: ILO light add-on diary module

1	Sleeping or napping
2	Personal hygiene and health
3	Eating or drinking
4	*Cooking / baking / preparing / serving food or drinks / cleaning dishes)*
5	*Manufacturing / processing foods, beverages, herbs, medicines, tobacco*
6	*Cleaning and tidying indoors*
7	*Outdoor cleaning and upkeep*
8	*Pet care (includes feeding, exercising, cleaning, grooming)*
9	*Decorating or minor repairs, maintenance of buildings, durable goods, vehicles, machinery*
10	*Laundry / repair or maintenance of clothes, textiles, shoes*
11	*Shopping for/purchasing goods*
12	*Paying bills, budgeting, administration, planning, organising*
13	*Providing physical care or comforting children (feeding, cleaning, bathing, giving medical care, soothing…)*
14	*Teaching, helping, talking with, or reading to children*
15	*Playing games and sports with children*
16	*Attending children's sports or games match, play, dance, talent show, or similar (includes training, practice, rehearsals)*
17	*[Minding or watching over] children*
18	*Providing physical care, practical assistance, or emotional support to adults with a disability, illness, or frailty*
19	*[Minding or watching over] adults with a disability, illness, or frailty who need assistance*
20	Waged or salaried employment / self-employment / paid traineeship
21	Helping without pay in a family or household business
22	Looking for paid work or setting up a new business
23	Unpaid traineeship or internship
24	Volunteering / community or social organising / environmental, nature conservation / protection of wild or street animals
25	Studying, learning
26	Growing crops, including kitchen garden, (clearing, planting, fertilising, irrigating, weeding, picking / harvesting)
27	Tending to livestock / Milking / gathering wool / eggs / dung / other animal products

28	Gathering / processing firewood, straw
29	Fetching water from natural and other source
30	Fishing / Aquaculture / Gathering wild products / [Hunting or trapping animals for food, pelts, medicines, etc.,]
31	Forestry / Logging / Mining / Quarrying
32	Construction, major renovations, or major repairs
33	Weaving, knitting, sewing, embroidering, tanning, bead-, textile- / leather- / metal-, wood- / stone- / brick-work
34	Socializing, visiting with, talking to friends / family / neighbours
35	Religious practice (individual or collective)
36	Participating in community festivals, celebrations
37	Attending cultural / entertainment / sports events
38	Playing sports or doing exercise
39	Watching tv shows, movies, online media / Reading for leisure / Listening to music, radio, podcasts, online audio
40	Hobbies, games, pass-times (includes resting / relaxing, "doing nothing")
41	Travelling or commuting / Transporting or accompanying people or goods
42	Other: Specify
43	Don't know

Source: ILO 2023.

Besides waged/salaried employment, self-employment and paid traineeship (code 20), the classification distinguishes "helping without pay a family or household business" – the so-called contributing family workers - (code 21), "Looking for paid work or setting up a new business" (code 22), "Unpaid traineeship or internship" (code 23).

Seven divisions (codes 26 to 33) are dedicated to own-use production of goods:

i) agriculture and other primary activities - including fetching water (code 29) and gathering firewood (code 28);
ii) "Construction, major renovation and major repairs" (code 32) and to;
iii) handicrafts activities (code 33 "Weaving, knitting, sewing, embroidering, tanning, bead-, textile- / leather- / metal-, wood- / stone- / brick- work") and;
iv) Finally, one (code 24) to unpaid volunteering ("Volunteering / community or social organising / environmental, nature conservation / protection of wild or street animals"), this latter division not mentioning unpaid help to other households. It is important to note that the labels do not mention that these activities are performed for own-use (except volunteering, which by definition is for use by others);
v) Lastly, one division (code 41) is dedicated to travelling or commuting. An additional question ("reason for travel") attached to the contextual question "Where?" allows to impute the corresponding time to the detailed time-use activities (work, school, etc.).

1.4. Conclusions and recommendations

The 2024 UNSD updated handbook on time-use surveys is destined to become a companion manual for time-use statisticians. Following the various stages of the Generic Statistical Business Process Model (GSBPM), it particularly emphasises on preliminary determination of users' needs (stage 1) and dissemination of findings (stage 7). Improving these two phases of the survey process is crucial because time-use surveys remain under-utilized, misunderstood and therefore have not found their place yet in the national statistical programming like household surveys to be

carried out on a regular basis. Training of users and co-construction of objectives and findings of time-use surveys with them are promising ways and means toward enhancing the utilization of TUS and supporting their prioritization in the future. Quality requirements at every stage of the survey process are also of primary importance in order to achieve convincing results. Based on the experience of a number of TUS in various countries, the handbook provides technical and strategic solutions to difficulties and challenges raised by the conduct of TUS, which despite their seniority, just reached maturity as shown by the requirements for harmonisation.

Progress is still needed in sampling and weighting procedures for ensuring the representativeness of the findings and the handbook provides guidelines based on good practices and lessons learnt over two decades. Sampling procedures – and consecutively weighting – apply to households, household members and days of the week and the year. Furthermore, discrepancies between respondents' profiles and what is known on the population from other sources require adjustments, especially if the results are extrapolated to the year and to the whole population for transforming minutes per day into full-time equivalent workers, building satellite accounts of household production, or assessing the size of the care economy and the relevant needs.

The Minimum Harmonized Instrument proposed by the UNSD handbook and the light add-on module designed by the ILO aim at simplifying data collection on time-use and making it possible on an annual basis, as a module attached to a regular survey. If stand-alone TUS with full diaries remains the recommended method of data collection, the light diary may prove efficient to provide data between two full surveys. Also, the light diary approach is less expensive in human as well as financial resources. In annex 1, the example of Japan is presented and a comparison is made between the findings from the light diary module and the full-diary module, both being administered in the same survey.

Lastly, simultaneous activities and supervisory care are central concerns in time-use data collection (UN Women 2023). All diaries usually include a systematic question on simultaneous activities. If examples need to be provided to induce responses from interviewees, supervisory care may require an additional dedicated question. But efforts must be made to ensure the quality of data and the publication of findings, especially regarding supervisory care.

The UNSD handbook provides solutions and alternatives to most of the issues that have emerged from several decades of implementation of time-use surveys in very different contexts and should probably be a powerful instrument of harmonization at international level.

We are now going to examine the experience of time-use surveys sponsored by UN Women in its Women Count Programme in the light of the recommendations and suggestions of the new UNSD handbook and the ILO guidelines on unpaid provision of services.

2. REVIEW OF COUNTRIES EXPERIENCE IN THE WOMEN COUNT PROGRAMME

2.1 Review of countries' experience from Phase 1 of the Women Count Programme

During Phase 1 of the Women Count Programme (2018-2021), time-use surveys sponsored by UN Women were conducted in seven countries and their results published: Bangladesh, Colombia, Georgia, Kenya, Senegal, Tanzania/Zanzibar, Uganda.

In order to review good practices and lessons learned from these seven countries' experience we will follow a grid comprised of six items, in the spirit of the Generic Statistical Business Process Model (GSBPM) that distinguishes eight steps:

i) Specify needs;
ii) Design;
iii) Build;
iv) Collect;
v) Process;
vi) Analyse;
vii) Disseminate;
viii) Evaluate.

The six items of our grid do not include the specification of needs nor the phase of evaluation:

i) Main characteristics of the time-use surveys (TUS);
ii) Sampling methods;
iii) Weighting and imputation/adjustment procedures;
iv) Questionnaires design;
v) Indicators produced (by sex);
vi) Dissemination output and outcomes.

The reason for the absence of the step on specification of needs is that the introductory chapters of all time-use surveys are astonishingly similar and repetitive in their objectives: in other words, all time-use surveys rightly highlight the terms of the overall strategy on TUS but rarely make explicit the specific needs identified through preliminary discussions with stakeholders. Therefore, more interesting is to highlight the process through which NSOs have identified the needs which the TUS should reflect and this has been done through the conduct of direct interviews with concerned NSOs and UN Women's regional and national offices: these concerns have been addressed in section 3 of this report. As to the evaluation phase, the process will be the same, though it can be noted that one country (Colombia) has published a report on lessons learned from the conduct of a time-use survey by time of COVID-19 pandemic (DANE 2022b). The evaluation phase should be used as a pre-condition toward securing long-term funding and capacity-building within NSOs.

The section is followed by annex tables summarising the information for each of the six items for the seven countries, as well as the list of references of time-use surveys and by-products for each country.

2.1.1 Main characteristics of time-use surveys sponsored by the Women Count Programme

Among the seven time-use surveys sponsored by UN Women under Women Count Programme (Table B1 in annex of this report), five (Bangladesh, Colombia, Georgia, Kenya and Senegal) have had their field data collection conducted during the COVID-19 pandemic and consecutive lockdowns (2020 and 2021), which has undoubtedly had an impact on the results and in some cases on data collection methods (for instance in Georgia, the Computer Assisted Personal Interview - CAPI - was partially replaced by Computer Assisted Telephone Interview - CATI).

Four of these surveys were carried out for the first time (Georgia, Kenya, Senegal and Uganda) and two took place in a repetition schedule (Colombia and Tanzania) while the last one came after a rather long period (Bangladesh). All but one (Colombia) are diary-based surveys and all but two (Kenya, Tanzania) are stand-alone surveys. Apart from Colombia, which used a list of 67 stylised questions for collecting time spent in the various time-use activities, all other countries used the one-diary method, except Georgia that used the two-diary method (one for weekdays and one for weekend days).

Significantly, the two countries that have repeated their surveys are the ones that either used stylised questions (Colombia) or incorporated a time-use module in another household survey (Tanzania). Tanzania has the longest tradition of conducting a time-use survey, having attached a diary module to the Integrated Labour Force Survey (ILFS) since 2006, then to the Household Budget Survey (HBS) in 2017-18 and the country appears to be on track for systematically incorporating a diary module into these two multipurpose surveys: the same diary module is attached to the forthcoming HBS 2024-25. Four time-use surveys have been carried out on a 12-month duration (Colombia, Georgia, Kenya, Tanzania), while three were on a 3- 4-month period. All surveys used ICATUS 2016 for classification of time-use activities, even Colombia.

Computer Assisted Personal Interview (CAPI) is now widely used by countries for conducting their time-use surveys. Only Bangladesh used the traditional paper questionnaire (PAPI). Only one country (Georgia) used the left behind diary method leaving to the respondent to fill the diary in person (and CAPI for the household and individual questionnaires).

Lastly, four countries mentioned that they conducted a pilot survey or a pre-test prior to the main survey (Georgia, Kenya, Tanzania, Uganda), in supplement to test or mock interviews during the phase of training.

2.1.2 Sampling methods

As most household surveys, the time-use surveys apply a stratified two-stage sampling procedure (Table B2 in annex of this report). Stratification of the universe to be studied generally concerns the geographic location (urban/rural and

sometimes – for instance in Georgia - distinguishing the capital city and in other cases the main administrative regions).

In the first stage, the Enumeration Areas (EA) or Primary Sampling Units (PSU) are selected with a probability equal to their size from a frame which is generally the list of EAs for the most recent population census, or also the master sample frame established on the basis of this list (Kenya). Households in the selected EAs are re-enumerated (to update the lists of households) and a random selection is then applied to households (for instance one out of ten in each PSU). In two countries the population census dated from less than two years (Colombia and Kenya) and in the other countries, the population census dated from three years (Uganda) up to ten years (Bangladesh).

Countries diverge as to the third stage (individuals) of the sampling procedure. Three countries (Bangladesh, Colombia, Georgia) opted for the strategy recommended by the new UNSD handbook (2024): in the selected households, all eligible members above a certain age are interviewed. The other countries applied a Kish grid to randomly select one (Tanzania), two (Kenya, Uganda) or four (Senegal) household members, sometimes with a further requirement for equalising the number of selected females and males. It should be noted that in the case of Senegal, the selection method is a way to deal with commonly large household size, that would make serene data collection difficult.

Divergence is also visible as to the minimum age for application of the time-use questions or diaries: while five countries adopted 15 years old as minimum age for eligibility to time-use data collection, Colombia opted for 10 years old and Uganda for 14 years old. Furthermore, the age groups for tabulations do not match for allowing strict comparisons, as Colombia adopted 10-17 years for the youngest age group and it was improbable that Uganda opted for a one-year age group (14 to less than 15) to make comparisons possible with other countries (the first age group is 14-17).

Few countries clarified the sampling procedure for selecting the day of the week and the week of the year (if applicable) for application of the diary. Only Georgia and Senegal provided the information. While Senegal simply notes that days of the week prior to field data collection have been randomly selected, Georgia details the procedure more in depth: Sampled PSUs are randomly allocated across the 52 weeks of the year, two sampled PSUs in each stratum are randomly allocated to each week, so that for each week, a total of six sampled PSUs comprises time allocation and for a given week, each of the sampled households from a sampled PSU was assigned two-diary-day combinations – a weekday and a weekend day. In total for each individual/day, the sampling rate results from the multiplication of the sampling probability at each of the four stages (with a probability equal to one at individual level if all eligible household members are selected and interviewed).

The achieved sample size for households is provided for all countries except for Bangladesh (which provided only the initial sample size). Only one country (Kenya) indicated that sample selection was operated without replacement (a clarification that has an impact on response rates). The number of interviewed individuals is indicated in four countries only (Georgia, Kenya, Senegal and Uganda) and the number of diaries in one country only (Georgia).

The response rate for households is available in five countries and for individuals in three countries. None of the countries provided the response rate for diaries. This does not mean that these indicators are unknown, but that they have not been published in the official reports of the surveys. Non-response rates for households (available for 5 countries) range from 0.6% in Senegal and 1% in Tanzania up to 13.2% in Kenya (with no replacement) and 36.7% in Colombia. As to non-response rates for individuals (available for three countries only), they range from 2.86% in Senegal, 17.5% in Kenya up to 36.1% in Uganda. It should be noted that high response rates (or low non-response rates) are a clue to the application of a replacement procedure, but this was not specified in the reports.

Table 6 summarises the quantitative information available on global sampling rates for the seven countries. The sampling rate for population ranges from 0.01% in Uganda up to 0.16% in Georgia and for households from 0.02% in Bangladesh and 0.04% in Uganda up to 0.33% in Georgia and 0.34% in Colombia.

Table 6: Sample size and sampling rates in the 7 reviewed countries of Phase 1

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/ Zanzibar	Uganda
	2021	2020-21	2020-21	2021	2021	2017-18	2017-18
Population (in thousands)	166,974	50,933	3,788	52,727	17,221	56,576	40,869
Sampled households	8,000	49,519	3,680	16,945	3,968	9,465	3,364
Sampled individuals			6,074	24,004	11,689		4,296
Sampling rate population			0,16%	0,05%	0,07%		0,01%
Household size	4,3	3,5	3,4	3,8	8,7	4,9	4,9
Sampling rate households	0.02%	0.34%	0.33%	0.12%	0.20%	0.08%	0.04%

Sources: Table B2 in annex.
For population size: United Nations, Department of Economic and Social Affairs, Population Division (2024), *World Population Prospects 2024,* Online Edition.
For household size: United Nations, Department of Economic and Social Affairs, Population Division (2022), *Database on Household Size and Composition 2022*. UN DESA/POP/2022/DC/NO. 8.

2.1.3 Weighting and imputation/adjustment procedures

Observation units (household/individual if applicable/time per individual) are weighted by the inverse of the probability of being selected (Table B3 in annex to this report). Therefore, countries are as precise on their weighting procedures as they are on their sampling methods. Generally, these indications are accompanied by tables showing sampling error for the most important variables. Interestingly, among the three countries that published tables (in annex) on sampling error (Bangladesh, Tanzania and Uganda), two (Tanzania, Uganda) made clear their sampling procedures but did not indicate the weighting procedures (and yet it was for budget-consumption variables at household level that sampling error was provided in Tanzania).

Only two countries (Georgia and Kenya) specified the weighting procedures at individual level and at diary level.

Kenya was the most precise and it is interesting to provide the related details because it shows well the complexities of sampling in a time-use survey: at EA level, household weights are multiplied by the inverse of the probability of selecting an eligible individual within an EA to get the EA level individual weights. Post-stratification was applied thereafter at stratum level using projected population of the 15 years and above at mid-year of 2021. In a time-use survey, the individual weight would be applicable if data were collected for the sampled individual for the entire period of the survey, however, this was not the case for the time-use module. An additional weighting factor was computed to account for the sampling of time periods. The time dimension weighting factor for producing person/day estimates was computed by dividing the number of days in a quarter by the number of days a person was sampled to report on, which was one day in this case. The overall weight for estimating person/days was obtained by multiplying the number of days in a specific quarter by the total number of eligible individuals in the population in that particular quarter. To adjust for weekend and weekday time use dynamics, a calibration estimation was undertaken. The weights for weekend person/days were post-stratified to the total number of available weekend person/days in the quarter to reduce coverage bias and ensure that estimates were consistent with known population totals.

One of the difficulties in time-use surveys based on stylised questions is that it is the difficulty of distinguishing between non-response (to a specific question) and a zero response. In Colombia, this issue was addressed through an explicit response option, “none”, for each time-use activity, indicating no time spent. This allows to calculate the participation rate for each activity whereas using the total population of respondents to the questionnaire would have underestimated the participation rate.

Three countries (Georgia, Kenya, Senegal) made adjustments to account for population benchmarks as of the survey date (for instance the projected mid-year population) and only one (Georgia) adjusted for non-response rate.

Lastly - given the non-response rate at household/individual and diary levels and the years between the last population census and the survey itself – is important to check the consistency of respondents’ profiles with population structures (sex, age groups) and as well as other characteristics of the population (educational levels, employment rates, etc.) from other sources, in order to verify that the population surveyed is not too skewed in relation to these characteristics. All countries collect information on households and on individuals besides the diaries, either as parts of the stand-alone survey (Bangladesh, Georgia, Senegal, Uganda) or as other modules of the multi-purpose survey (Kenya, Tanzania). Most time-use reports start with a chapter on households’ and respondents’ profiles or characteristics of the population. Only Colombia published a report comparing the results of the time-use survey with the large Integrated Household Survey (GEIH) conducted the same year. Adjustments, when they are made, seem to be made with population totals rather than with population structures by sex and age group.

As a matter of fact, as men are more often employed than women, the probability of them being absent from home at interviewers’ visits is higher, possibly resulting in an over-representation of women purely engaged in domestic and care tasks. The question deserves to be raised especially when converting mean time data into yearly estimates for total population. The building of satellite accounts of household production in Georgia (Charmes 2024) has shown that when adjusted for sex, age

groups and activity status, the gap between direct estimates and adjusted estimates is not negligible. In other words, when imputing the detailed mean time spent by specific age groups, active and inactive groups (or rather employed-not employed) to the exact population structure (by age groups and for employed/not employed) known from other sources deemed to be the benchmarks of the national population and economy, one can grasp the magnitude of the skewness of the blown-up sample. This is why and in order to quantify and value aggregates at national level, adjustments such as the above-mentioned prove necessary.

2.1.4 Questionnaires

The characteristics of time-use survey questionnaires in the seven reviewed countries are summarised in Table B4 in the annex of this report.

Stand-alone time-use surveys are generally composed of three components: a household survey and an individual survey and one or two diaries, while modular time-use surveys can take advantage of the other modules of the multipurpose or specialised parent survey to obtain the household and individual characteristics needed for time-use analyses.

The **Kenyan Time Use Survey 2021 (KTUS)** is a module of the Kenya Continuous Household Survey Program (KCHSP) comprising several other modules such as the household member roster, education, labour, housing, consumption of food, food insecurity, consumption of non-food, expenditures on house rents, water, electricity, gas and other fuels, expenditures on health care and other items (non-durables), expenditures on clothing, expenditures on household goods, expenditures on communication, recreation and culture, expenditures on insurance and financial items, expenditures on new/second hand motor vehicles and agricultural farm gate prices.

The **Tanzania time-use survey 2017-18** is a module of the Household Budget Survey (HBS) with other modules on household and household members' characteristics and on consumption/expenditures on food and other non-food items (durables and non-durables). For the other rounds it was a module of the Integrated Labour Force Survey (ILFS) which is comprised of a household members roster, with specific questions on disabilities and modules on household amenities, services and assets; current activity; main economic activity; informal sector main activity; hours worked; income; usual activity; children aged between 5-17 years: non-economic activities, school attendance and hours of work, health and safety and child perception.

The **Colombia time-use survey 2020-21** is a stand-alone survey similar to a multi-purpose survey with modules on households, each household member, health, care for children aged under five, education and labour.

The *household questionnaire* of stand-alone time-use surveys can be reduced to a list of household members with few socio-economic characteristics (Uganda) or can be more extensive with inclusion of modules on housing and equipment (Bangladesh, Senegal) and labour (Bangladesh). For these two latter countries, the individual questionnaire is included in the household questionnaire. In Georgia where the time-use questionnaire is adapted from HETUS, the household questionnaire - in complement with detailed individual characteristics of household members – collects

data on the types of caregiving and domestic services used, household income, use of household appliances, Internet, vehicles and heating in the home.

In **Georgia**, the *individual questionnaire* includes data on sex, age, ethnicity, educational level, health status and activity limitation, employment status, occupation, industry, hours worked, nature of enterprise/farm/business and in Uganda, it includes information on detailed characteristics of the person, attitudes toward gender equality, use of a watch and the day of the week.

Regarding *diaries*, only one country (Georgia) used a couple of left-behind diaries. In Senegal the diary includes individual characteristics (age, sex, number of children 0-17, internet use and whether the day of the survey is typical or not. Questions on enjoyment for the day are included in Uganda, complemented by the activity that provided the most enjoyment (Kenya) and also the least (Tanzania).

The question of *time slots* is important. Apart from Georgia that used the 10 minutes slot, as recommended by HETUS, the time slots range from 15 minutes (with two activities- consecutive or parallel) in Senegal, to 30 minutes (with up to 3 activities) in Bangladesh and 1 hour with 5 activities (Tanzania, Uganda) or several activities with no upper limit (Kenya).

As regards the *contextual variables* (for whom, with whom, where), they were collected in four countries (Bangladesh, Georgia, Kenya, Senegal). Georgia, Kenya, Tanzania and Uganda added the question of 'means of transport' to the location, while the question 'for pay or profit' was used in Bangladesh, Kenya and Tanzania. Only Georgia asked the question whether the person was using internet devices while performing the activity.

All seven countries captured *simultaneous activities*. While the question was systematic for each declared activity in Bangladesh, Georgia and Uganda, in other countries (Kenya, Senegal, Tanzania) the question was used in order to distinguish among the various declared activities in the time slot, to determine which were consecutive and which were parallel. In Colombia (stylised questionnaire), the question on simultaneous activities was not asked systematically for all activities, but an additional question was introduced asking what other activities (household management, work, other, none) were performed while supervising children or dependent adults and a complementary final question was asked on what were the three most frequent combinations of activities performed in parallel.

Regarding *"supervisory care"*, which has become a priority concern in the recent period, especially because it is a factor of stress that needs to be taken into account when the overload of care tasks can have impacts on health and on paid work, a recent study experimented cognitive testing of wording associated with supervisory care (UN Women 2023). However, there were no questions specifically dedicated to supervisory care in the seven reviewed time-use surveys. Of course, 'passive care' is an item of ICATUS at three-digit level and passive care activities are tentatively - but imperfectly - captured through the question on simultaneity. At most, it can be noted that in the Tanzania time-use survey, a question with two options was asked about time spent in care for children, sick, elderly, disabled: (i) not mentioned all the time,(ii) already mentioned all the time. This subject certainly, deserves more attention for the future design of diaries.

Lastly, it should be noted that two additional sets of questions attached to the diary have become widespread in connection with emphasis put on well-being as a complement to the measurement of economic performance: attitudes on gender equality (Bangladesh, Colombia, Kenya), life satisfaction (Bangladesh) or perception of time poverty (Colombia).

2.1.5 Indicators produced (by sex)

By definition, all indicators to be considered are disaggregated by sex.

The main indicators expected from time-use surveys (Table B5 in annex of this report) are the *average time spent (duration) by total population, participation rates and time spent by participants in detailed time-use activities* used for measuring the gender gap in paid and unpaid care work, for time poverty analyses or for valuing unpaid care work in satellite (extended) accounts of household production. But there are many other indicators and types of analyses based on time use surveys, for instance timing, sequencing and fragmentation and the count of the number of episodes/activities per day, which allow a more in-depth knowledge of work-family balance and a better understanding of women's mental workload when balancing between paid and unpaid work and various forms of unpaid care work: at what time of the day the various activities occur, compete with each other and add to the burden of domestic and care work?

The **Colombia time use survey** (the only one based on stylized questions among the reviewed countries) is also the only one that has not published any table on time spent by population: time spent by participants and participation rates are the only indicators that have been analysed in the report at the most detailed level of time-use activities. We can note however, that with these two indicators it is possible to infer the third indicator on time spent by population that allows international comparisons. This can be a source of misunderstanding, given that common users, as well as scholars may tend to add up the minutes or hours spent in several activities, which is only possible with the indicators for total population.

The **Uganda time-use survey** is the only one to provide (in annex) the duration disaggregated at 3-digit level of ICATUS, whereas this level of detail may occur in other countries only for specific activities such as domestic activities. In the country's report cross-cuttings with other variables (six age groups, location, location and age groups, four educational levels, eight regions) are done at 1-digit level of ICATUS only.

All surveys provide duration data by main background characteristics at 1-digit level of ICATUS, sometimes completed at aggregated level: unpaid domestic work and unpaid care work, SNA/unpaid SNA/non-SNA/not productive (Bangladesh, Colombia, Kenya, Senegal, Tanzania, Uganda). Georgia adopted another kind of aggregate classification, distinguishing between necessary time, contracted time, committed time and free time. Tanzania is the only country to have published all results only at 1-digit level of ICATUS, probably because the findings on time-use are limited to a chapter in the parent survey report (only for the 2006 survey, a more detailed analysis was published by an external institution: IFPRI). The main background characteristics are: age groups, location, regions, educational level or attainment, more rarely marital status, activity status and even more rarely religion, household composition, household size, household headship (Kenya) or also poverty status,

weekday/weekend day, presence of children up to 10 (Senegal), disability status, above/below poverty line (Tanzania). The classification by age group is certainly the classification that would deserve the most efforts in terms of harmonization, not only for the minimum age (5/15 in Tanzania, 10 in Colombia and Georgia, 14 in Uganda, 15 in other countries), but also for the number and intervals of age groups (4 groups in Georgia and Tanzania for the 15+, 5 in Bangladesh, Kenya, Senegal, Uganda, 7 in Colombia where the first age group is 10-17 and the two last 60-75 and 76+).

Participation rates and time per participant are not systematically published: Only Colombia (as already mentioned), Georgia and Kenya published them and Senegal for participation rates only.

Proportions of detailed or aggregated activities in the 24-hour day are made available in three countries only: Bangladesh and Uganda for main aggregates, Georgia at 1 and 2-digit levels and for aggregates.

The *summary table including time by population, participation rates and time per participant at detailed level of ICATUS* is only available only in Kenya.

Tables for *simultaneous activities* are available in four countries only: Georgia (at 1- and 2-digit levels in on-line supplementary tables), Kenya, Senegal and Uganda (at 1-digit) and by location and for aggregates (Kenya) and for most frequent combinations (Senegal).

Tables for *weekdays and weekend days* are provided in four countries: at 1- and 2-digit and for aggregates in Kenya, at 1-digit in Senegal and Uganda (and by location and region). In Georgia the distinction by type of day of the week is used only for time spent alone/with others by type of living arrangements, location and age groups and for most pleasant/unpleasant/stressful activities.

Three countries addressed *supervisory care*: Colombia with tables on 'passive care', Georgia for parents with children under 15 and including simultaneous activities, Senegal with a table on 'most frequent secondary activities associated with childcare'.

Two countries published detailed results for *specific populations*: Colombia and Georgia (disabled and ethnicity), Tanzania (disabled) and for Georgia: parents with children under 15, youth and elderly.

Only one country (Georgia) presented *special cross-tabulations* for:

i) Domestic services by presence or absence of time-use saving devices or services;
ii) Time pressure and work/leisure balance;
iii) Travel by purpose;
iv) Caregiving services by age of youngest child.

As regards *timing and episodes*, only two countries dedicated some developments to these issues: Uganda published data on the apercentage of women and men who spend time on unpaid work by hour of the day and Georgia presented detailed tempo-graphs on time-use patterns - participation rate in the various time-use

activities (1-digit) by the hour of the day: by sex and also by urban/rural location, by age groups for both sexes.

None of the countries under review published results on the *number of episodes by time-use activity* nor for aggregates, as a factor of fragmentation and stress.

Contextual variables (for whom, with whom, where, means of transport) are collected to help distinguish between paid and unpaid activities), but they can also be analysed just as other background individual characteristics. Only one country (Georgia) took advantage of having collected such data by publishing (as mentioned earlier) tables on time spent alone and with others as an input to the chapter on social and personal dimensions of time-use, along with appreciations of the day or of the activities.

Colombia published *extra cross-tabulations* (not cross-cutting with time) on the perceived impact of COVID-19 on paid work, income, the share of domestic and care tasks and access to services.

Lastly, none of the reviewed countries published any global estimate (such as total number of hours by activity in a year, full-time equivalent workers, value in terms of GDP). For some of them, these kinds of exercises have been postponed to next steps of their programs on time-use (see next section on dissemination of output and outcomes).

2.1.6 Dissemination of output and outcomes

Table B6 in annex of this report details the types of products that follow time-use data collection.

Publication of official national reports on main findings by NSOs occurs from one year after the end of data collection (Colombia, Senegal, Tanzania, Uganda) up to 2 years (Bangladesh, Georgia, Kenya).

Extra tabulations were generally made available in annexes of the reports and also on separate xls files (Colombia) or online (Georgia).

Metadata (methodology, sampling, training, fieldwork, non-response, weighting, questionnaires) are generally included in a chapter or a section of the reports, with supplements in annex. For modular or multipurpose surveys (Colombia, Tanzania), methodologies do not particularly focus on time-use, but rather on the parent survey. Manuals for interviewers and survey staff are not usually publicly available.

Microdata are made available to users upon request in Colombia and Senegal. There was no indication in this respect on NSO's websites for other countries.

Among the *other dissemination products* and besides the validation workshops with partners, stakeholders and the media, that launch the official report, press releases are prepared as summaries of main findings. In Senegal a statistical booklet/Bulletin with main findings was released by the Ministry for Gender. In Georgia UN Women published a parallel report on unpaid work and gender inequality. Interestingly, Colombia published a report on lessons learnt from conducting a survey during the

COVID-19 pandemic and three press releases were published every 4 months as a follow-up to COVID-19 crisis.

An important point is the *access to report, data and metadata on NSOs' websites*. In this matter, there is room for much progress, given that there is only Colombia where the survey is accessible through thematic windows under the topic 'society-poverty and living conditions' and Tanzania through HBS. In Georgia, time-use survey's findings can be found on the home page in a window 'Key findings', just besides the SDG platform: this is an advantageous location, but probably provisional, subject to removal at next update of the homepage. For all other countries, the time-use survey and related metadata can only be found through the search window, as if this type of survey had not yet reached institutional ownership by the relevant institution.

Time-use surveys should have their own location (and possibly several locations) for download under headings such as 'household surveys', 'society', 'living conditions', 'gender' or 'social statistics' and as sub-topics. Their current status seems to mean that time-use surveys are not yet recognised as belonging to the family of household surveys and this has an impact on their use. Common users of NSOs' websites should have access to this type of survey by just surfing through traditional topics. In the same vein, it is noteworthy that none of these surveys in the reviewed countries are mentioned in the International Household Survey Network (IHSN) database.

As outcomes of time-use surveys, five categories of products can be identified:

i) global estimates;
ii) satellite (extended) accounts of household production;
iii) care economy or care needs assessment and;
iv) policy-oriented measures stemming from the findings of time-use surveys and;
v) time poverty measures.

In the seven countries under review, *global estimates* (such as total number of hours per year and for total population, full-time equivalent workers and valuation of total unpaid labour input compared with GDP) have not been computed independently of the compilation of a *satellite account of household production.*

Satellite accounts of household production have been prepared and are published in Colombia, Senegal and Georgia and in preparation in Bangladesh and in Kenya.

Care economy or care needs assessment were prepared in Kenya and partly in Colombia.

The *development of a national care policy* resulted from the care needs assessment in Kenya and Colombia, while a ministerial by-law reflecting the 3Rs is under development in Senegal and a child day-care bill has been passed in Bangladesh.

Among other potential users of time-use surveys, the National Transfer Accounts (NTA) project[7] deserves mention, as was the case in Colombia.

[7] The NTA project aims at improving the understanding of how population growth and changing population age structure influence economic growth, gender and generational equity and other important features of the macro-economy. The construction of accounts that measure how people at each age produce, consume and share resources and save for the

2.1.7 Conclusions and recommendations for review of surveys for Women Count Phase 1

Generally speaking, the time-use surveys implemented in countries of Phase 1 of the Women Count Programme follow the recommendations of the 2024 UNSD handbook, all the more so as these recommendations are flexible and not restrictive.

However, not all countries have had the financial and human resources to undertake their surveys over an entire year. Creatively, Kenya designed the sample to be surveyed in 4 cycles of 24 days over the year, which could be a good compromise between a sample scattered over all weeks of the year and a 3- 4-month data collection. Similarly, the two-diary method is recommended but was implemented in one country only.

Face-to-face interview (using CAPI) is the most common mode. The left-behind self-administered diary is not about to be generalised yet in national contexts where populations are not completely literate.

The UNSD handbook is not very prescriptive about time slots length (10 minutes up to 30 minutes with up to 3 successive or parallel activities), recognising that even 1-hour with up to 5 activities seems to have good results in certain contexts.

The minimum set of contextual questions (for whom, with whom, where/mode of transport) is not yet firmly established and the pre-coded responses classification are not harmonized, as they are mostly used as probing questions and not as analytical information deserving tabulation and narrative to be included in the report.

Apart from stylised questionnaires where the questions on parallel activities are not systematically asked for each main activity, the recommended design of the question is the additional question “what else were you doing at the same time?” rather than checking whether one or several activities listed in the time slot were performed in parallel with the main activity. Furthermore, ‘supervisory care’ is limited to a main or parallel activity coded at 3-digit level and should deserve to be captured through an additional question such as “while doing this activity, were you also watching after or minding children or any dependent person?”

The minimum age is not harmonised between countries: recommendations are for a minimum age at 15 (at 10 if possible but with separate analysis and adapted questionnaire). It should be recommended to use similar age groups for comparative analyses: four at least (15+; 15-24; 25-64; 65+) and intermediate 5-year age groups, as necessary for satisfying expressed needs. An age group for reproductive age (15- or 20-49) should also be considered.

Most countries sampled individual members, though the handbook recommends selecting all members (above the minimum age), which allows richer (intra-household) analyses and facilitates data collection and cross-checking. However, in

future, intends to complement the System of National Accounts in a perspective that fully captures women’s economic contribution.

the case of the light diary modular approach, ILO gives preference to the random selection of one member only.

A general recommendation is that national reports should provide more details on sampling and weighting methods, especially regarding the selection of days of the week over the survey period. Adjustments made on population and population structures should also be clarified more systematically and more in-depth.

Harmonization of presentation of survey findings and tabulations is essential to allow comparisons across countries and over time and in this regard, much remains to be done. The minimum set of tables at adequate levels of ICATUS is rarely achieved and there is a need for harmonization in this domain too.

Dissemination remains the neglected stage of the process and it must be conceived from the very start when the specification of needs is discussed with the various stakeholders. Huge – yet easy to implement – efforts are to be made to make data, metadata, microdata, tabulations, reports and publications available to the wider public, or to the simple visitor of NSOs' websites.

2.2 Review of countries' experience from phase 2 of the Women Count Programme

During phase 2 of the Women Count Programme (2022-25), time-use surveys sponsored by UN Women were meant to be conducted in 14 countries: Albania, Argentina, Armenia, Belarus, Egypt, Ethiopia, Kazakhstan, Kyrgyzstan, Mexico, Moldova, Morocco, Nigeria, North Macedonia, South Africa. At this stage however, only four countries took steps toward implementation: Armenia (which has already completed data collection), Kazakhstan, Belarus and Nigeria (which has undertaken a pilot survey in four States, without benefitting of a previous experience, except an aborted pilot at the end of the 1990s). If at least three countries of the list are soundly engaged in a process of repetition of their time-use survey (Mexico, Moldova and Morocco), as well as two countries included in the 2020 wave of HETUS (Albania and North Macedonia), it has not yet been possible for the five remaining to mobilise the required financial resources.

The analysis follows the grid in 6 items used for the review of countries from phase 1. In the tables of this section, we provide the information for the on-going survey (Armenia and Nigeria highlighted in yellow) to the extent that the national process has reached the corresponding step of the grid and for the most recent time-use survey in the other countries. Repetition of time-use surveys will necessarily rely on past experience and lessons learnt, if only to enable assessing trends over time.

We add to this list 4 more countries – Cameroon (which benefits from UN Women support for the analysis of the modular time-use survey conducted in 2021-22), Chile, Russia, Tajikistan - which will serve as benchmarks.

2.2.1. Main characteristics of the surveys already conducted in countries Phase 2

Time-use surveys in the 14 countries of Phase 2 (Tables C .1 to C.3 in annex C to this report) date from 2008 (for the oldest: Armenia, currently repeating its survey) up to 2021 (for the most recent: Kyrgyzstan). Some countries have already conducted 4

TUS (Mexico), 3 TUS (Kazakhstan, Kyrgyzstan, North Macedonia) or 2 (South Africa). Only Nigeria cannot prevail from past experience. If all 14 countries are candidate for the repetition of their TUS (or the implementation of their first ever TUS: Nigeria), only four have already engaged the process (Armenia, Belarus, Kazakhstan and Nigeria) and 3 have planned their surveys for 2024 or 2025 (Mexico, Moldova, Morocco) and two more covered by HETUS (Albania, North Macedonia), others are still struggling for mobilizing the required resources.

All countries have conducted stand-alone TUS, except two which opted for modular survey (Kazakhstan, Kyrgyzstan) and the diary method is applied in all countries but Mexico (with a questionnaire comprised of more than 100 stylized questions) and Kyrgyzstan (with a pre-listing of 51 activities). It is interesting to note that Argentina stands now as the only country in Latin America to have used the diary method.

Five countries carried out their TUS on 12 months (Albania, Belarus, Moldova, North Macedonia, Morocco), the nine other on a period ranging from one week (Kazakhstan) to three months (the majority), generally the fourth quarter (or the third quarter). It should be noted that the on-going TUS in Armenia opted for a period of eight months.

The type of data collection is the face-to-face diary interview (Egypt, Ethiopia, Morocco, South Africa) or the self-administered left-behind diary (Albania, Armenia, Moldova, North Macedonia, Argentina). CAPI is mentioned in three countries (Morocco, Mexico, Kyrgyzstan) and PAPI in one country (North Macedonia). However, it can be noted that PAPI generally characterized the self-administered left-behind diaries in the past period.
our countries indicated that they administered two diaries (one for weekdays, one for weekend days): Albania, Armenia, North Macedonia and Kazakhstan and three countries only one diary (Morocco, South Africa, Argentina).

Most countries opted for the selection of all household members above a minimum age to be administered the diary (Albania, Belarus, Moldova, North Macedonia, Ethiopia, Mexico, Kazakhstan, Kyrgyzstan), Armenia selected all members aged 15-80 and only four countries randomly selected one member (Argentina) or two members (Egypt, Morocco, South Africa).

The minimum age ranges from 10 (Albania, Belarus, Moldova, North Macedonia, Egypt, Ethiopia, South Africa, Kazakhstan), 12 (Mexico, Kyrgyzstan) to 14 (Argentina) and 15 (Morocco, Nigeria). Armenia in its on-going TUS collected data for the 15-80 and Morocco also collected data for the 7-14 years old (but published data only cover the 15+).

As to the classification of time-use activities, ICATUS (trial 2012 or 2016) was used in seven countries (Armenia, Belarus, Egypt, Ethiopia, Morocco, South Africa, Kazakhstan), HETUS in three countries (Albania, Moldova, North Macedonia) and CAUTAL in one country (Argentina). Mexico uses its own Mexican classification of time-use activities, inspired from ICATUS 2012 (with which a table of correspondences is provided).

Lastly, pilot surveys or pre-testing are mentioned by five countries (Argentina, Egypt, Ethiopia, Nigeria, North Macedonia).

It can be noted that countries following HETUS (European countries and near countries) have achieved a greater degree of harmonization in their methodologies. Moreover, Armenia shifted from HETUS to ICATUS for the classification of time-use activities between 2008 and 2023-24.

Also, it is to be noted that information on TUS characteristics is sometimes missing due to lack or difficulty to access to metadata on NSOs' websites.

2.2.3. Sampling methods

As expected, in all countries, the two-stage stratified random sampling, based on master samples established from the most recent population census, is generalised for the selection of households, with stratification at more or less extended geographical areas (urban/rural and for a greater or lesser number of provinces or corresponding administrative areas), depending on the choice to produce results that are representative at such geographical levels (Tables C 3 and C 4 in annex C to this report). It can be assumed that this was also the case in the countries where we were unable to find the information.

At individual level, the number of countries (four) selecting all household members above a minimum age equals the number selecting one or two members with a Kish grid (4), whereas the benchmark countries opted for selecting all household members (with an upper limit of six members in Cameroon).

For the random selection of the day(s) of the week, postponements are meant to be avoided, but in case it was not possible, the same day(s) within the three following weeks should be assigned. Several options were implemented: each household/individual was assigned one of the 365 days of the year (Moldova); proportional distribution of each day of the week to the households surveyed during the month (Kyrgyzstan); assignment of a specific day to the household when the sample is drawn. However, many countries do not provide the details on how they assign the day(s) of data collection.

Non-response rates are generally provided at household level (ranging from 0.8% in Ethiopia – without replacement, up to 30.9% in North Macedonia, 31% in Chile, 31.8% in Moldova and 38% in Argentina), more rarely at individual level (from 0.9% in Ethiopia, 3.0% in Armenia and 7.1% in Argentina, up to 11.6% in Albania and 24% in Chile) and even more rarely at diary level (11.6% in Cameroon, 30.7% in Albania and 34% in Armenia). Only two countries indicated that these non-response rates were obtained with no replacement (Ethiopia, North Macedonia) or after replacement (Albania, Russia). Left-behind self-administered diaries lead to higher non-response rates at all levels (households, individuals, incomplete diaries) as compared to diaries administered by interviewers.

Table 7 displays the sampling rates in terms of population and households for the countries of Phase 2 and benchmark countries. Sampling rates of population range from 0.03‰ in Nigeria (in 4 states), 0.1‰ in Egypt and Ethiopia up to 17‰ in Kazakhstan, 21‰ in Armenia and 31‰ in Argentina. And sampling rates for households range from 0.07‰ in Nigeria, 0.1‰ in Egypt and 0.8‰ in Russia and in Mexico, up to 3.8‰ in Armenia, 6.7‰ in Moldova and 10‰ in Argentina.

Table 7: Sample size and sampling rates in the reviewed countries of Phase 2 + benchmarks

	Albania	Armenia	Belarus	Moldova	Russia	North Mace-donia	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroo n	Argen-tina	Chile	Mexico	Kazakh-stan	Kyrgyz-stan	Tajiki-stan
Year	2010	2024	2014	2011	2019	2014	2015	2013	2012	2024	2010	2022	2021	2015	2019	2018	2021	2023
Population (in thousands)	2 929	2 943	9 479	3 520	146 512	1 990	98 580	97 125	33 355	227 883	52 662	27 268	45 357	18 139	126 357	18 797	6 746	10 390
Sampled households	2 250	3 168	6 000	10 642	45 000	2 080	3 480	20 122	8 990	3,600		5 164	15 439		28 238		1 649	3 000
Sampled individuals		6,292					6 895	52 262	16 395	7,200	39 897	11 914	14 350		71 404	32 301	4 521	13 150
Sampling rate population		0.0021					0.0001	0.0001	0.0005	0.00003	0.0008	0.0004	0.0031		0.0006	0.0017	0.0007	0.0013
Household size	3.86	3.54	2.34	2.2	2.58	3.07	4.13	4.64	4.58	4.7	3.24	4.56	2.95	3.04	3.75	3.44	4.05	5.99
Sampling rate households	0.0030	0.0038	0.0015	0.0067	0.0008	0.0032	0.0001	0.0010	0.0012	0.00007		0.0009	0.0100		0.0008		0.0010	0.0017

Sources: Tables C 3 in annex.

For population size: United Nations, Department of Economic and Social Affairs, Population Division (2024), *World Population Prospects 2024,* Online Edition.

For household size: United Nations, Department of Economic and Social Affairs, Population Division (2022), *Database on Household Size and Composition 2022*. UN DESA/POP/2022/DC/NO. 8. And national data for Moldova and North Macedonia.

2.2.5. Questionnaires previously or currently used by countries Phase 2

Candidate countries to repetition of their time-use surveys will be tempted to use the same approach as earlier with minor adaptations. Latin American countries[8] will remain stuck to stylised questionnaires, but the example of Argentina shows that the diary approach may also be successful in such contexts (it is true that Argentina benefited of previous experience in administering diaries at capital level in 2005). Similarly, it seems that European and near Europe countries will remain attached to HETUS classification and methodology, though the example of Armenia shows that moves from HETUS to ICATUS may occur, but Tajikistan recently opted for HETUS. And in Latin America, countries remain tied with CAUTAL, with the exception of CMAUT Mexico based on ICATUS 2012 (INEGI 2010 and 2014).

Diary questionnaires undoubtedly converge in their design (Tables C 4 in annex to this report), as well as in their time slots (10 minutes) even though it is preferably to be left to national option. The half hour time slot with up to three successive activities can be preferred in certain contexts where the notion of time is more flexible than in others that are regulated by strict time schedules. Nigeria stands out with a 1-hour time slot with only one activity and the same for secondary/simultaneous activity: A possible reason for such a choice could be that it is the first country's experience after a failed trial in 1998. Convergence consists in designing the first question as: "what were you doing at such and such time?" followed by "what else were you doing at the same time?", then comes the minimum set of contextual questions: where? (completed with mode of transport), with whom? and less often: for whom? or for what purpose?
Use of ICTs recently emerged as a contextual question (Armenia 2024, Nigeria 2024).

Supervisory care was tentatively apprehended in three countries of the review: South Africa in 2010, Cameroon in 2014 and above all, Argentina in 2021. The South African case is typical of the approach that earlier prevailed to mitigate against child care work being underreported. Firstly, the part of the questionnaire that precedes the diary included questions that asked whether the respondent had any children under seven years of age and – if so – whether the children lived with them. The same two questions were also asked in respect to children under 18 years. (In other countries, these two categories in need of care are supplemented by adults in need of permanent care). Secondly, after the diary was completed, there was an extra question which interviewers used to prompt all respondents as to whether they did any childcare which they had not mentioned. To keep a check on the success or otherwise of this approach, there were two slightly different codes for each of the childcare activities. A '1' as the third digit indicated that the activity was named spontaneously. A '2' indicated that the activity was only mentioned after prompting.

Cameroon in 2014 also used the probing questions after completion of the diary.

By capturing up to three activities by 10-minute time slot, the diary of the Argentinian TUS obtained relatively high figures in simultaneous activities and especially care activities. Combined with stylized questions in a preliminary section for identifying those household members who require care, the survey captured

[8] In Latin America, there are few experiences of time-use surveys using the diary: Argentina (2005 and 2021), Bolivia (pilot surveys 2010 and 2019), Brazil (2009-10), Chile (2007-08), Cuba (pilot 2001), Venezuela (2023).

supervisory care relatively well and the results throw attention on the importance of this form of care. In such an example, respondents also need to be sensitized on the permanence – even not conscious - of supervisory care, to remind them that they must take these activities into account, even when simultaneous.

2.2.6. Indicators by sex produced in prior time-use surveys of countries Phase 2

As regard the indicators systematically produced by NSOs in their TUS official reports, especially average time spent by population, participation rates and time per participant, practices vary along several orientations (Tables C 5 in annex to this report).

Some countries privilege average time spent by total population (where the various time-use activities totalise 24 hours) in parallel with participation rates: Albania, Egypt.

Other countries privilege average time spent by participants in parallel with participation rates: Moldova, Argentina, Chile.

And some countries publish tables with the three indicators: time by population, participation rates and time per participant: Ethiopia, South Africa.

But the majority of countries reviewed produce only the indicator on time spent by population (totalling 24 hours): Belarus, Russia, Morocco, Kazakhstan, Kyrgyzstan, Tajikistan.

One country - North Macedonia – displays time by population and time by participants.

Lastly, Mexico has its own way of presentation of results: the total annual number of hours in the activities, in parallel with the participant population (in numbers). Total population is also provided, so that the three basic indicators can be calculated.

A majority of countries, but not all, present the proportion of time spent on main activities in the 24-hour day: Albania, Belarus, Russia, North Macedonia, Kazakhstan, Kyrgyzstan, Tajikistan and - for aggregate activities - Mexico.

Only one country (Egypt) displayed the summary table with the three indicators (time by population, participation rate, time by participants), though at one-digit level only but for main background characteristics.

Only five countries published tables *on simultaneous activities*: Ethiopia, South Africa, Cameroon, Argentina and Mexico (for care only). Among them, South Africa, Argentina and Mexico have been able to contribute to the measurement of *supervisory care*. However, special mention needs to be made of Albania that published tables on care as main and secondary activity and on free time, meals and unpaid work spent with children up to 9 present, or with partner and children under 7 and between 7 and 16 present.

In all Phase 2 and benchmark countries but 3 (Argentina, Mexico, Moldova), detailed tables are provided for *weekdays and weekend days*. All published tables are

disaggregated according weekdays and weekend days in the TUS report for Albania (2010-11). The details are provided at 1- or 2- digit levels and for various background characteristics in other countries, or limited to a few activities: for instance, travelling and sleeping in North Macedonia, at 1 digit and for detailed housekeeping services, detailed free time, detailed personal care in Kyrgyzstan.

Detailed tabulations are sometimes dedicated to *specific categories of the population*: for instance, pensioners in Russia, indigenous populations in Mexico and more generally youth (10-14 in Kazakhstan, 10-14 and 10-17 in Tajikistan, 10-28 in Kyrgyzstan), adults (20-74 in Moldova and 20-64 and 20-74 in North Macedonia), students in North Macedonia and Kyrgyzstan, employed, unemployed and inactive in North Macedonia.

Special cross-tabulations are also observed that probably correspond to some stakeholders' needs, for instance: travel by purpose in Egypt, time by presence of household appliances, by source of fuel and water; travel by 1-digit activity in South Africa; number of hours of total work (paid and unpaid) by number of hours in paid work in Albania. In some cases, these special cross-tabulations are not disaggregated by sex, for instance: time spent on travel to work and eating at work in Kyrgyzstan.

Timing and episodes are analysed in just a few countries. Albania highlighted daily rhythm for the 20-74 years old and for weekdays and weekend days, with international comparisons (so does North Macedonia). The Albanian report also looks at fragmentation, studying free time episodes by duration and weekdays/weekend days, as well as activities that follow free time episodes. Moldova also dedicates some graphs to the question and Cameroon looks at the timing of activities by hour of the day (but once again without disaggregating by sex).

Contextual variables unfortunately remain under-analysed, being mainly used for assessing whether an activity is performed for pay or is unpaid. Albania is a good example of analyses of contextual variables: 'With whom' is distinguished by type of household (single person household, with partner and child under 6, with youngest child 7 to <17) and type of activities: meals/coffee, free time (travel excluded), watching TV. 'Where' is analysed for meals-coffee, socializing, free time (travel excluded). National reports have tabulated and analysed location (and mode of transport) in Egypt, South Africa, North Macedonia and 'with whom' in Egypt and Cameroon.

Finally, among all reviewed countries, only Egypt and Cameroon proceeded to global estimates for valuating unpaid work at national level in a dedicated chapter of the survey report. However, it should be noted that Mexico and Morocco have proceeded to such an exercise in separate works: they built detailed satellite accounts of household production on the basis of their time-use surveys (INEGI 2023 and HCP 2016).

2.2.7. Dissemination of outputs and outcomes for prior surveys of countries for Phase 2

In this regard, most countries published the survey report within a year, but it took longer in South Africa (3 years), Cameroon and Morocco (2 years). Most countries published a detailed report of the survey's findings, with more or less detailed

methodological developments and annexed tables, but some other countries opted for a different publication strategy (Tables C 6 in annex to this report): 1) Brief analytical report with infographics + very detailed methodological report (especially on sampling and weighting) + detailed on-line tables, Mexico for example; 2) Report consisting in detailed tables with short methodological indications without any analytics + thematic briefs sub-contracted to an academic think tank: Moldova; 3) On-line metadata and detailed tabulations without analytical report: Russia; 4) Short analytical report + Tables in separate files + metadata in separate files: Chile, Morocco; 5) Brief analytical report + detailed on-line tables and short methodological information: Kazakhstan, Kyrgyzstan, Tajikistan.

In the case of Mexico, it is important to highlight that the dissemination of results goes beyond the official outputs produced by INEGI. Academic institutions and women's organizations advocating for the right to care have played a crucial role in transforming statistical data into knowledge products used for legislative advocacy and public communication. A key example is the Meetings on Time Use Surveys, which have been held annually in Mexico for over 20 years. Supported by UN Women, INEGI, the federal Secretariat for Women and ECLAC, these meetings have served as a vital forum for engaging not only data producers but also academics, policymakers and legislators—fostering dialogue, visibility and practical use of the data in decision-making processes.

In the same vein, it is interesting to get a more in-depth look at the thematic briefs that were published on the basis of the Moldovan TUS, on child care, unpaid work, volunteering, schooling, social life and entertainment, reading, disabled, health and life-style. Of course, these themes could have constituted the chapters of the national report of the survey. But the idea of developing in-depth analyses as a follow-up of the main report and by sub-contracting academics or academic centres is particularly promising. However, it has to be said that the gender dimension is relatively missing in the thematic briefs, having been treated as a simple variable among others.

At least seven of the fourteen Phase 2 countries and four benchmark countries have made micro-data available to users (Argentina, Chile, Egypt, Mexico, Morocco, North Macedonia, Russia). In other countries (Albania for instance) the micro-data have occasionally been made available for specific research.

Only two countries (Cameroon, Egypt) included global estimates of household production in the official report of the surveys and two (Morocco, Mexico) developed satellite accounts of household production. And only one country (Albania) conducted a care needs assessment (in 2023), long after the implementation of its TUS (2010-11).

In the case of Mexico, for example, the indicator that estimates the value of unpaid work performed by women relative to men has provided strong evidence to:

- Support discussions in Congress on the need for a National Care Law and to raise awareness among legislators in Mexico City, leading to the approval of a local care law.

- Raise public and media awareness about the economic importance of unpaid domestic and care work and the urgent need for its redistribution among families, the private sector and the State.
- Furthermore, unpaid care work carried out by households in the absence of formal institutional services can be incorporated into satellite health accounts. In Mexico, estimates of this type are already available.

Access to TUS on NSOs' websites is generally not straightforward: through themes such as 'living/social conditions', 'social sector', 'gender', 'demography'; or through 'publications', 'surveys'. Time-use is not a direct theme or a direct survey. In some websites, access is only possible through the search window, meaning that a logical search through themes or surveys, or publications does not allow to find the TUS data. In Georgia, the survey show up on the homepage, but not in thematic areas.

2.2.8. Conclusions and recommendations for review of surveys Women Count Phase 2

All countries of Women Count Programme Phase 2 (except Nigeria) have at least one previous experience of conducting, analysing and using a time-use survey.

For countries candidate to repetition of their time-use surveys, it is important to draw the lessons learnt from their past experience, especially regarding the dissemination of prior outputs and the use that was made of surveys' findings by stakeholders and technical departments. The mobilisation of the required financial resources to conduct a new time-use survey heavily depends on the potential use of its results by policy makers and the recognition by the latter of the benefits of having such results at their disposal. Lessons from the past may indicate what has worked and what has not worked, which of the disseminated products have been especially used. The role of institutionalization is important to emphasize as in the case of Mexico, where the collection of time use data has become mandatory and is allocated the required resources by law.

Taking the best of every country' prior practices, it could be suggested that a detailed analytical report comprising methodological details understandable by a wide audience and detailed annexed tables be published as a minimum standard. On-line detailed complementary tables in xls format should be made available for a wider audience, with the possibility of constructing own tabulations by selecting specific variables to cross-cut. And the detailed methodology (especially sampling and weighting) should be provided for specialists (while the methodological summary in the main report must remain accessible for non-specialists). Thematic or policy briefs (or in more developed format) on the model of Moldova would pursue the objective of satisfying the needs of various users/stakeholders: they could be sub-contracted with academic centres on the basis of terms of reference clearly focusing on gender.

This is why it is important, from the very beginning of the process of repetition of a TUS to engage in discussions with the greatest number of stakeholders and users, to help them express their needs, to involve them in the design of the survey as well as in the analyses to come of the findings. Scholars and academics can help and should be sensitized to the conceptual framework of care and to related policy-making issues and associated to the analyses of the surveys. To this aim, interdisciplinary and inter-departmental teams should be constituted from the beginning of the process,

be kept aware of the progress of the survey's implementation and plan the tabulations and analyses necessary to explore their domains so as to be ready to produce the requested reports supporting policy-making in favour of care, but also in favour of all other identified needs.

3. GUIDELINES TOWARDS HARMONIZED MEASURES ON TIME-USE AND PRACTICAL GUIDANCE TOWARDS INCREASED COMPARABILITY OF TIME-USE DATA

The recent updated handbooks prepared by UNSD and ILO have explored all the difficulties and challenges encountered by the design and implementation of time-use surveys, based on an extended knowledge of good practices and lessons learnt around the world. So, there is no question here to repeat every technical recommendation that have been made by these handbooks. It is rather matter of highlighting the gendered focus in conducting time use surveys with a perspective that reflects mainstreaming gender analysis; reviewing, identifying and sequencing, in concise manner, the main domains where emphasis, deepening of understanding and precisions deserve to be made in the specific context of emerging and developing countries, that is countries comparable to those involved in both phases of the Women Count Programme.

Keeping in mind that the main issue at stake for time-use surveys in these countries is their under-use by policy makers, but also media and academics, which prevents them to be enshrined in the regular national programmes of statistical data collection, we will insist on two stages of the process: i) the sensitization operations prior to, or at the beginning of the launch of a time-use survey and ii) the dissemination phase that encompasses analysis as well as the various actions and initiatives aimed at making the findings of the time-use survey available to policy-makers, academics and the wider audience. In this respect the GSBPM stages of 'specifying needs' and 'designing' on the one hand and 'analysing' and 'disseminating' on the other hand are particularly targeted, without forgetting all recommendations towards increased comparability. Furthermore, we will address funding gaps, given that many of the time-use surveys planned in Phase 2 have not yet been implemented because of lack of funding[9].

We will examine the recommendations along the following sequence:

i) Identification of needs;
ii) Selection of the type of survey and approach;
iii) Designing the questionnaire;
iv) Sampling methodology;
v) Data collection;
vi) Harmonization procedures;
vii) Weighting and adjustments;
viii) Indicators to be produced;

[9] For this section of the report, the documentary knowledge has been complemented and informed by key informants' interviews (see list in annex F)

ix) Products, outputs, outcomes and dissemination;
x) Addressing funding gaps.

3.1. Identification of needs

Any survey that is new to the public and possibly new or not well-known from statisticians themselves must start with a preliminary identification of the needs it is deemed to fulfil from the part of users, be they technical departments of Ministries (such as ministry of labour, women's machineries), national agencies, academics, media and the wider audience.

NSOs generally organise workshops before or at the launch of a new survey with the various concerned stakeholders for sensitizing them, exchange ideas, share experiences and identify needs. At best, such workshops are organised sufficiently ahead to the launch of the survey to allow taking suggestions or recommendations from stakeholders and users into account in the design of survey questionnaires. At least, when the delay is too short for this aim, stakeholders are in a position of taking NSOs aware of their needs so that the survey will be able to produce indicators and tabulations fitting with these needs.
It is rare – if not inexistent - that such workshops be organised long before the implementation of the survey, in order to discuss and decide of the opportunity, the priority to be given and the potential contents and uses of the survey, an approach that would empower the various stakeholders and potential users in the conduct of the survey and ensure their later ownership of the survey findings.

Such workshops should be conceived as including scientific presentations of time-use surveys and national experiences with conceptual, methodological and analytical contributions. Academics and PhD students should be invited as potential speakers as well as potential users. In particular analyses of previous surveys in the country (or similar countries) can be presented that exemplify the type of findings that could be used by unknowing potential users, i.e. those who are unaware of the relevance of such information to their action. For instance, time spent on commuting to and from work by bus or by car is an information of interest for the ministry of transport, time spent on commuting to and from school for the ministry of education and time spent on fetching water and firewood for the ministries of water management and energy, among others (such as the ministries of health, agriculture and forestry). In other words, the objective is to create a demand for time-use data from non-conventional users and arouse new fields of analysis for such data.

Recommendations for identification of needs

i) Ahead workshops intended to sensitize, train and raise interest from potential users and stakeholders.
Organise 2- or 3-day workshop well in advance of the launch of the time-use survey with specialists of TUS and women's machineries, as well as other stakeholders (national and international: see Box below) as a sensitization exercise and an opportunity for raising awareness and training of stakeholders, retain their interest in the longer term and build teams including statisticians, specialists in various fields and academics that would be able to contribute to the survey design in the short run, to the tabulation program and survey analysis in the medium term and maintain interest and focus in the long term by deeper analysis and use of the findings.

ii) **Launch workshop.**
Organise 1-day or 1 half-day workshop for the launch of the survey with the same stakeholders and the media, to publicize the survey operation and prepare the media for a better understanding of the findings to come.
iii) **Multidisciplinary working groups dedicating to specific time-use topics.**
Put in place and incentivize small working groups of discussion (mixing statisticians, academics and specialists of the covered domains) that could be incentivized to meet regularly on topics to be developed on the basis of survey findings (for instance: unpaid work and women's empowerment, satellite account of household production, care needs assessment, rural infrastructure and access to water and fuel, transport infrastructure and commuting, work-life balance, well-being, etc.) and keep them running until the dissemination phase of the TUS.
iv) **Key profiles of participants.**
Invitations to the workshops and working groups should target key profiles of the participants (as well as gender parity), their gender sensitivity, their interest in engaging to be part of a long-term process of co-constructing the results of the survey so that they can be used in their own areas of expertise.

Box 2: A tentative list of stakeholders

Ministries	**Agencies**	**International institutions**
Gender	NSO	UN Women
Planning	Universities	UNICEF
Labour and social affairs	Employment promotion	ILO
Economy and Finance	Urban planning	WHO
Agriculture	Radio-TV	UNESCO
Infrastructure	Social security	UNDP
Energy and Water	Water distribution	UNFPA
Habitat/housing		FAO
Transport	**CSOs**	World Bank
Education	Oxfam	
Health	Plan International	**Bilateral/Multilateral**
Environment	Handicap international	EU
Youth		IDRC
Sports		GIZ
Culture		Japan
Information, communication		Finland
Regional governments		SIDA

3.2. Selection of the type of survey and approach

The various options combine

- the type of survey: Stand-alone survey or modular survey;
- the type of approach: Diary or stylised questionnaire;
- and for diary surveys: the full or light diary[10].

[10] See annex D for a comparison between full and light diary at national level (Japan). There does not exist any comparison between full diary and stylized questionnaire approaches that would have been carried out simultaneously. The recent TUS in

The diary approach is the most preferred option, countries having prior experience of stylised questionnaires may prefer to stick to this approach.

If stand-alone surveys are privileged, limitations in financial and human resources may lead to give priority to modular surveys in order to benefit from existing infrastructure and means already mobilised for a multi-purpose or integrated household survey.

Recommendations for the choice of survey and approach

i) For their first ever TUS or their repeated TUS since a long time, a stand-alone survey based on diary is recommended;
ii) A stand-alone diary survey repeated every 5 years is recommended; every 10 years is also fine;
iii) In the meantime, either a stand-alone light diary TUS or a modular full diary or light diary attached to a regular household survey (labour force survey, income-expenditure surveys or living conditions survey) should be conducted every year or every two years;
iv) For countries giving preference to stylised questionnaires, the same sequencing remains appropriate: stand-alone with full list of activities for base years, modular shortened list of stylised questions for intermediate years;
v) In all cases, transport activities must be treated in order to allow their allocation to the related main unpaid and paid activities.

3.3. Design of the questionnaire

TUS questionnaires are threefold. One questionnaire covers household characteristics, a second questionnaire covers the individual characteristics of the selected household member for administration of the diary (or the list of stylised questions) and the third questionnaire is the diary (or the list of stylised questions).

The Minimum Harmonised Instrument (UNSD handbook 2024) indicates the basic questions that should be included for background characteristics of the household:

- household size,
- household composition based on age and sex,
- place of residence urban-rural,
- household income,

and additional as relevant in national context:

- access and use of care services,
- presence of persons requiring help with daily living activities,
- access to utilities,
- household wealth (or household durables).

And for background characteristics of the selected household members:

- age,

Armenia will be soon an opportunity as the country's LFS has included a set of questions on other forms of work including the production of goods for own use (5 activities), the production of services for own use (4 activities: domestic chores, care of dependent adult, care of children) and volunteer work.

- sex,
- marital status,
- educational attainment,
- current school attendance and grade,
- current employment status,
- labour force status,
- labour force status of spouse/partner,

and additional as relevant in national context:

- disability status,
- race, ethnicity,
- general health status,
- access to timekeeping devices.

Dwelling characteristics, access to public utilities and household equipment are of particular importance to assess wellbeing in relation with time allocation.

The diary design is now well established and should be followed, that is: 1) the question on activities (what were you doing at such and such time?) comes first, 2) the question on parallel activity (were you doing something else at the same time?) comes in second place, 3) contextual questions: For whom, with whom, where/modes of transport come in third place.

Introducing a question on supervisory care seems extremely relevant given countries' experience gained in this regard. Therefore, if no parallel activity is declared or if the spontaneously declared parallel activities are not care activities, a complementary question on passive care could be added (in third place, before contextual questions) asking whether at the same time he/she was performing the main task, the respondent was also in charge of minding or looking after children or adults in need of care.

Optional, but also relevant, is the question on ICTs 'use (while doing such main and parallel activity, were you using any kind of ICT, such as cellphone, smartphone, laptop, etc.).

Equally optional is the question on the feeling about the activity (stressing/not stressing, pleasant/unpleasant).

The choice of options depends on identified users' needs, the availability of resources (each extra question has a cost) and the concern about avoiding an overburdening of respondents.

Other options relate to time slots duration and the number of activities in the time slot: 3, 4, 5, no limit.

Another choice regarding the diary questionnaire of a TUS is whether one or two diaries should be filled in by the respondent: One for weekdays and one for weekend days. If the two-diary option seems preferable, concerns about survey costs and overburdening of interviewees are challenging.

Recommendations on questionnaire design

i) The household questionnaire and the individual questionnaires should comprise the background characteristics selected by the Minimum Harmonised Instrument, with suggested additional characteristics;
ii) Setting a time slot duration is recommended rather than collecting exact starting and ending times;
iii) Options for time slot duration and number of activities in the time slot remain open from 10, 15, 30, up to 60 minutes with 3 to 6 main and simultaneous activities by time slot (the number of activities being proportional to the length of time slot), based on country's experience and field testing;
iv) The question on simultaneous activities should be doubled with a question on supervisory care: at the same time, were you minding or being 'on call' of (other) children or adults in need of care?
v) Ideally, the two-diary option (weekday/weekend day) is recommended. If the one-diary option is preferred, it has implications on the sampling procedure in order ensuring that weekend days are correctly represented in the sample (refer to sampling methodology).

3.4. Sampling methodology

The sampling methodology of TUS comprises three levels: household/individual/day of the week.

Sampling household is a solidly-established methodology across NSOs: the two-stage (Enumeration areas/Households) stratified (urban-rural/province or region) random sampling is generalised.

Regarding the selection of individual household members, the option is between selecting all household members above the minimum age, or only a randomly selected number, usually through a Kish grid[11]. The selection of all household members is highly preferable in that it allows intra-household analyses on the gender and generational distribution of unpaid work within the household. Moreover, the approach is cost-effective in that the interviewer is on site. The only inconvenience is that the household may find the approach overburdening and that it may reveal difficult to interview each person separately.

Lastly, the selection of the day(s) of the week for application of the diary must be conducted by random and prior to the field operations so that the interviewers not only know which household they are going to interview, but also the day(s) when they should interview them. The days are randomly allocated to the selected households in order to cover all days of the week and all weeks of the year in the overall sample.

Ideally, the survey should be conducted on an entire year to capture seasonal variations through a rotating sample across the twelve months of the year. This is because the survey findings are destined to be extrapolated over an entire year. But many countries may not have the human and financial resources for that. Kenya (2021) tested a cost-effective alternative that consisted in determining four periods of 24 days in each of the four quarters of the year for the implementation of data

[11] Refer to glossary.

collection, whereas Nigeria opted for two rounds - in the wet season and in the dry season.

Furthermore, the sample size must be determined depending on intersectionalities and sub-populations that need to be analyzed, most usually racial/ethnic groups, urban/rural populations and also the youth, the adult population (working age/reproductive age), the elderly, students, pensioners as well as persons with disabilities who require care (in the latter case, this category of population being studied as care receivers). The importance of ensuring the representativeness of these subpopulations. may require, in some countries, the development of tailored sampling strategies to ensure their proper inclusion and to enable a more accurate measurement of inequalities from an intersectional perspective.

Recommendations on sampling methodology

i) Use of the two-stage stratified random selection of households.
ii) A rotating sample over the year is recommended.
iii) For cost-effectiveness purpose, a period of three to four weeks in each quarter of the year can be decided for data collection.
iv) All members of the selected households should be administered the diary above a minimum age that should preferably be 15.
v) Each selected household should be allocated a precise day (and week-end day) across the period of data collection (with restricted possibilities of changing the day for postponement).
vi) The sample size should be determined depending on the inter-sectionalities/sub-populations that need to be analyzed.

3.5. Data collection

Because TUS are still relatively unusual statistical surveys and because their object (time) is more abstract to capture than other usual statistical objects and prone to subjectivity from interviewees as well as interviewers, this type of survey requires special handling in the application of household survey procedures. Pilot surveys are strongly recommended with real evaluation of lessons learnt from the pilot and impact on main survey's tools. Similarly, training of interviewers requires attention, time, increased testing and rigorous selection of interviewers. And sensitization of the population to be surveyed and the selected households to the measurements about to be done and their importance.

NSOs have to choose between face-to-face questionnaires/diaries administered by trained interviewers or left-behind diaries. It should be noted that even in the case of left-behind diaries, the household and individual questionnaires on background characteristics are generally face-to-face administered and it is on this occasion that the interviewer provides the diaries to be filled in by the selected members of the household. The left-behind paper diary has rarely been used in developing countries because of still low literacy rate, not even to mention electronic web-diary, which implies good access to Internet services.

While Computer Assisted Personal Interview (CAPI) has generalised in developing countries, the left-behind diary would mean returning back to paper questionnaire and therefore introduce a dual treatment of diaries given that not all the population would be able to fill in the diaries. In other words, while a part of the population (the poorer and most remote) would be applied CAPI, another part of the sampled population would be applied the left-behind paper diary upon voluntary choice.

It is important to note here that the COVID-19 pandemic represented an opportunity to transit – at least partially - from CAPI to Computer Assisted Telephone Interview (CATI). This move from CAPI to CATI was tested for the Georgia TUS (2020-21). "In the winter, when the COVID-19 rates were too high and the lockdown measures too strict, respondents were given an informational booklet about the GTUS and were offered the option to conduct their household and individual interviews via phone". It thus limited the interactions between the households and the interviewer to a minimum (official presentation of the survey and provision of the telephone numbers of the selected household members).And the sample selection was not impacted, given it was not based on the ownership of a telephone.

Recommendations on data collection

i) Conducting a full-scale (on substantial sample[12]) pilot survey is highly recommended, especially for countries not having the experience of TUS;
ii) Training of interviewers should be given high priority, with frequent testing and controls of the understanding of concepts and methods by trainees.
) Sensitization of the population and especially the target population, to the objectives and the usefulness of time-use data collection.

4) Computer Assisted Personal Interview (CAPI) is recommended and should be preferred to Paper Assisted Personal Interview (PAPI).

5) Transition from CAPI to CATI (Computer Assisted Telephone Interview) should be tested for certain populations (comfortable with the use of cellphone or fixed phone) and in certain circumstances (pandemic for instance). In any case CATI does not imply a sample selection from any telephone directory. And it requires the agreement of the respondent based on the knowledge of interview's duration and clarification and insurance on data privacy and protection.

3.6. Harmonization procedures

Classification of time-use activities are converging around ICATUS and HETUS and tables of correspondence have been established to make comparisons easier and consistent.

Age limits and age groups are of particular importance for comparative purposes across countries and over time. National practices differ according to contexts and national legislation or international conventions. In some countries where child labour is widespread, it can be important to have a lower minimum age. In other

[12] That is a sample size exceeding a few units and allowing to generate the mains indicators sought for in the survey, in various contexts (urban/rural).

countries, preference goes to the alignment with regulatory frameworks on custodianship or the Convention on the Rights of Child, which sets at 18 the age below which a human being is a child. But because quinquennial age groups are the most widely used at international and national levels, the minimum age for data collection on time use should be 15.

Recommendations on other age limits concern the background characteristics of households and household members. Because the burden of unpaid care work is much more important with the presence of young children, it is important to produce statistics for households (or mothers and fathers) with young children as compared to households with older children or with no child at all. To this aim it is necessary to determine classes for the number of children in the household and classes for the number of children under a certain age (5? 6? 7?) or between a lower age limit and upper age limit. How to define a young child or an adolescent by her/his age? Countries' practices diverge in this regard. If the category of 0 child is obvious, the sub-categories of age groups vary from country to country. Moreover, given that time-use data are referring to individuals, it must be clear whether the categories refer to children in the family of the person, or own children of the person. Here are some examples drawn from the list of countries of Phase 1 and Phase 2 of the Women Count Programme.

Typology of families/households according to the presence or absence of children:

i) Morocco (2012): No child under 15, 1-2 children, 3+;
ii) Ethiopia (2013): No child, at least one less than 6, none less than 6 but at least one under 18;
iii) South Africa (2010): No children under 7, children under 7 living in the household; children under 7 not living in the household, no children under 18, children under 18 living in the household, children under 18 not living in the household;
iv) Albania (2011): Married with youngest child up to 6, married with youngest child between 7 and 17, married without children under 17, unmarried with no children;
v) Georgia (2021): Mothers, fathers with children under 15, 0-4, 5-11, 12-14.

Such a diversity is partly explained by national contexts and regulations and international comparisons can admit these national variations, so that harmonization may be considered as unnecessary for this background variable.

Recommendations on minimum age and age groups

i) The recommended minimum age is 15 and no maximum age should be applied. Should TUS include children under 15, specific tables should be dedicated to this population group and, possibly, specific questionnaires.

ii) Age groups for data publishing should be quinquennial with several aggregates such as 15-24 for youth, 15-49 for reproductive age[13], 25-64 for adults and 65+ for elderly, not the mention the entire population of 15+.
iii) For children, the possibility of aggregation with other age groups should be made possible, i.e. the age groups for children should go up to 14. And a specific age group 15 to 17 should be set in order to allow the compilation of statistics for a child age group from 5 to 17.
iv) For elderly, a 75+ category would be recommended in order to better identify the population in need of care.
v) For national needs and as far it is necessary for time series, other specific age groups can be distinguished to ensure comparability over time and with other national sources.
vi) For categorizing family/household types, it is recommended to stick to previously used categories in the country, or to adopt categories used in neighbouring countries at regional level.

Other harmonization procedures relate to tabulations and will be addressed in section 3.8.

3.7. Weighting, adjustments and quality assessments

TUS statistical data result from an extrapolation of the randomly selected sample. Each observation unit (household, individual household member, diary day) has its own weight resulting from the sampling method. Weighting consists in allocating the inverse of probability sampling to the various observation units.

Response rates are an important indicator and the survey methodology aims at minimizing the non-response rates. But non-response rates skew the sample and procedures are implemented towards reducing non-response. Replacement of households and of individual members (when they are randomly selected), replacement of days of the week or weekend days (when the respondent is unable to fill in the diary for the particular day(s) allocated by the selection procedure) may be implemented towards reducing the non-response rates. Technical reports must clarify the procedures that were used and clearly explicit whether the response/non-response rates were obtained before or after replacement. All the more so that TUS in high income countries face higher and higher non response rates, a reason for that being the technique of left-behind diary questionnaire, which explains the new modes of data collection currently tested in these countries. Diaries filled by interviewers in middle- and low-income countries avoid such bias (at the cost of other biases: influence of the interviewer, presence of other household members).

At a second stage (i.e. after replacement), techniques may be used to redress the sample, for instance imputation of response for a missing household or individual by the average value of the category of household or individual with similar background characteristics: the technical report or methodological section of the TUS must be clear about all the types of corrections that may have been operated in the process.

All TUS dedicate a chapter on the profile of respondents, but rare are those which compare the profile with structural characteristics of the population provided from reference surveys for these types of characteristics (demographic survey, population census, for sex and age distribution, labour force surveys for activity and

[13] The age group for reproductive age makes it possible to compare TUS findings with Demographic and Health Surveys (DHS) and MICS surveys.

employment status, etc.). Colombia is an exception (See DANE 2021c in references of section 2.1).

Lastly, it occurs that at the end of the process of data collection and despite the automatic or supervisors' controls, a more or less important number of diaries are incomplete. The UNSD handbook provides examples of TUS for which diaries are accepted if at least 12 hours (or less, or more) are filled in. Moreover, other corrections can be made, for instance if missing time slots are in between two time slots dedicated to sleeping, the intervals can be filled with the same time-use activity.

At the very end of the correction and weighting process and despite replacements and imputations, adjustments are operated to align the population extrapolated from the sample, with population data (sex and age) known from demographic sources or population projections for the year of the TUS: sex and age groups are the most common variables mobilized for adjustment, but urban/rural location can also be used where available, or also the employed/not employed population structure.

Another important harmonization procedure refers to data quality categorization of countries based on key TUS characteristics.

Assessing the quality of TUS is a necessary step for ensuring the reliability of international comparisons.

We have seen (Annex D) that, in the case of Japan that collects data on time use through both light and full diary modes, even though the trends are aligned, there are significant gaps between the results obtained through light diary and full diary approaches for time spent on unpaid work, paid work and total work.

Similarly and though the gaps cannot be measured as precisely as in the above case, there exist discrepancies in time spent on unpaid work where data are collected through stylized questionnaires, just because time collected cannot be checked against the 24-hour duration.

Lastly, many time use surveys are not (yet) conducted over a period of one year in order to capture seasonal variations, whereas all surveys are used to extrapolate the findings over an entire year (for building extended accounts of household production for example). This introduces a factor of uncertainty in the value of such extrapolations and the comparability across countries.

Normally, the official reports (at least the methodological reports) should publish standard errors and confidence intervals for all or main variables. For instance, in the 2010 time-use survey of Sweden, detailed tables in annex are published with each value of time accompanied by the confidence interval estimated at 95% (for example: 2h52min $\pm$12). However, it is rare for countries to do so.

This is why it may be useful to assign a quality measure to countries' values in comparative exercises. It can be a quantitative or an alphabetical coefficient.

Such an exercise is necessary given that uncertainty assessments are not typically provided in time-use reports whereas it helps with their interpretation. It has already

been conducted in a recent research aiming at estimating the global human day (Fajzel et al. 2023). In this work, an approximation of data quality was attempted based on objective characteristics of the surveys. Taking into consideration that the American Time-Use Survey (ATUS) has provided estimates of variances and that the method ends in standard errors ranging from 0.3 per cent to 6.9 per cent according to time-use activities, a variance of 5 per cent was assumed for high-quality TUS. The robustness of each survey is then graded to reflect disparities in survey methodology and design across countries.

The quality of each survey was assessed according to several key characteristics, notably survey duration, data collection method and lexicon length. Three quality levels (A, B and C) were associated with a 5, 10 and 20% baseline uncertainty on the time values reported in the survey, respectively. To this aim a scoring procedure was applied to identify the quality level of each survey.

We repeat here this procedure with some variations. However more refinements could be introduced. For instance, whether time is captured with one or two diaries, the non-response rate, whether or not all activities are covered or only the unpaid, or the paid and unpaid but not free time and personal care.

Table 8 below assigns scores according to the surveys' characteristics.

Table 8: Scoring of surveys' characteristics

	2 points	1 point	0 point
Duration of observation	12 months	2 to 11 months	<2 months
Type of questionnaire	Full diary	Light diary of stylized questions	Other
Length of classification	International or national full classification	15+ activities	<15 activities

A score of 5-6 points is graded A and corresponds to a baseline uncertainty of 5 per cent. A score of 3-4 points is graded B and corresponds to a baseline uncertainty of 10 per cent. A score of 1-2 points is graded C and corresponds to a baseline uncertainty of 20 per cent.

Table 9 scores the time-use surveys of phases 1 and 2 of the Women Count Programme as well as benchmark countries.

Most countries' scores are at A level, but three Latin American countries score at B level.

Much more differentiation would show up if we apply the method to a broader list of countries or surveys, for instance the 100 countries and surveys we have identified so far across the world since the end of the 1960s (See Table A1 in annex and annex E). Furthermore, if we were to assess the actual length of activity lists – according to the most detailed tables published in the official reports, we would obtain an even more differentiated picture, especially as the list of countries below does not include any country that have used the light diary approach.

Table 9: Scoring of TUS Phase 1 and phase 2 of Women Count Programme

	Duration of observation	Type of questionnaire	Length of classification	Score
Phase 1				
Bangladesh	2 months	Full diary	ICATUS	5
Colombia	12 months	Stylized questions	67 activities	4
Georgia	12 months	Full diary	ICATUS	6
Kenya	12 months	Full diary	ICATUS	6
Senegal	4 months	Full diary	ICATUS	5
Tanzania/Zanzibar	12 months	Full diary	ICATUS	6
Uganda	4 months	Full diary	ICATUS	5

	Duration of observation	Type of questionnaire	Length of classification	Score
Phase 2				
Albania	12 months	Full diary	HETUS	6
Armenia	8 months	Full diary	ICATUS	5
Belarus	12 months	Full diary	ICATUS	6
Moldova	12 months	Full diary	HETUS	6
Russia	2 months	Full diary	National	5
North Macedonia	12 months	Full diary	HETUS	6
Egypt	2 months	Full diary	ICATUS	5
Ethiopia	1 month	Full diary	ICATUS	5
Morocco	12 months	Full diary	ICATUS	6
Nigeria	4 months	Full diary	ICATUS	5
South Africa	3 months	Full diary	ICATUS	5
Cameroon	12 months	Full diary	ICATUS	6
Argentina	3 months	Full diary	CAUTAL	5
Chile	3 months	Stylized questions	CAUTAL	4
Mexico	1 month	Stylized questions	CMAUT (ICATUS 2012)	3
Kazakhstan	12 months	Full diary	ICATUS	6
Kyrgyzstan	12 months	Full diary	51 activities	5
Tajikistan	3 months	Full diary	HETUS	5

The methodological chapters, sections or annexes of the TUS reports should provide and make clear all these weighting, correction and adjustment procedures for a better assessment of the quality of data collected and produced.

Recommendations concerning weighting, adjustments and quality assessments

i) Response-rates (or non-response rates) should be published in the methodological sections or annexes of the survey reports;
ii) It is recommended to publish three categories of response rates (for households, for individual household members and for diaries), indicate the reasons for non-response (refusals, unknown, absent and for diaries: incomplete) and whether or not they take replacements (if any) into account;
iii) All procedures of correction, imputation, re-weighting should be indicated with concrete examples. For instance, what was done with incomplete questionnaires (12 hours only)? Were

tentative corrections made and how? For instance, filling an empty time slot with surrounding activities or with commuting from one place to another, using the contextual variables: where and mode of transport?
iv) It is recommended to mention the possible distortions with population structures known from other sources when presenting the respondents' profile and the procedures that have been applied to correct them;
v) Adjustments should go further than population numbers by sex and geographical areas: they can include urban/rural location, age groups, activity status for the aim of better capturing intersectional inequalities such as rural vs. urban women, young vs. adult women, women with disabilities, etc.;
vi) Countries should systematically provide estimates of standard errors and confidence intervals, at least for the main variables of time-use.

3.8. Indicators to be produced

It may seem obvious, but it gets even better when it is said: a TUS is a survey dedicated to the understanding of gender gaps, not only in unpaid work, but in all other types of activity because the initial gap in unpaid work impacts paid work, but also leisure and personal care. In other words, all findings of a TUS should be presented disaggregated by sex and gender and should not be limited to a single chapter of the final report. The gender dimension must come across all chapters and dimensions of the analysis. More than in any other statistical survey, the variable "sex" is not a variable of the same level as others such as age, location, educational level, etc. It is a variable that must be cross-tabulated with all other collected variables.

A basic table that should be systematically compiled and published (at least in annex) in TUS reports is comprised of the three main indicators of time-use (disaggregated by sex): i) average time (in minutes per day or hours per week) spent by total population; ii) participation rate and iii) time spent by participants, all at detailed level of the classification of activities (ICATUS), including the aggregate levels (1-digit, 2-digit).

The above basic tables should be published for main activities on the one hand and for main and simultaneous activities on the other hand.

This is the basis that allows all further analyses and in particular the satellite accounts of household production, time poverty assessments and care needs assessments (see boxes below).

The report itself should then analyse each main group (1-digit) and/or sub-group (2-digit) of time-use activities in details, that is cross-tabulated with each background characteristics collected in the household and in the individual questionnaires, as proposed by the Minimum Harmonised Instrument (see section 3.3).

Other dimensions of time-use to analyse are: timing (at what time of the day are these activities performed?), sequencing, fragmentation and simultaneity, analysed through the number of episodes in the day, the number and duration of episodes for the main daily activities, the number of activities per episode (fragmentation, simultaneity), put in parallel – if applicable – with the appreciation for the activity/episode (pleasant/unpleasant/stressful).

Of particular importance is care work that deserves cross-tabulation of multiple variables for instance by age and income, educational attainment and activity status, composition of the household (number of children under a certain age), etc.

If each major time-use activity (at 1-digit) deserves to be analysed per se, interactions between unpaid and paid work, between unpaid work and leisure for instance are of particular importance for the understanding of work-life balance, with inputs of contextual questions (in particular with whom and where/modes of transport) that also deserve to be more often and more in-depth analysed. Commuting should be given more interest for its impact on related activities and on free time in general.

Recommendations concerning indicators to be produced

i) All tabulations on time-use should be disaggregated by sex and it is recommended to avoid treating gender in a dedicated chapter;
ii) A basic table at detailed level of the classification of time-use activities of time spent by population, participation rate and time spent by participants should always be edited;
iii) Simultaneous activities need to be dedicated specific tables (either separately or with main activities and the most frequent simultaneous associations should be highlighted;
iv) Each main activity (at 1-digit level) should be dedicated a chapter or section of the report, with cross-tabulations by main background characteristics;
v) Besides duration, timing, sequencing and fragmentation of time require to be analysed;
vi) Cross-cutting issues should be developed, such as work-life balance, commuting, socialising, wellbeing, making use of contextual variables;
vii) Specific populations or sub-populations should receive attention and be dedicated substantial developments: Youth, adult population (of working age, elderly), fathers/mothers (in couple)/single parents with young children, disabled;
viii) A minimum set of tables should be prepared, based on best practices and best designs, from the outset.

3.9. Products, outputs, outcomes and dissemination

3.9.1. Main outputs of TUS

The main outputs of TUS are: i) the survey report that comprises the methodology, the detailed analysis and the basic detailed tables, ii) synthesis and illustrated booklets of main findings, iii) thematic reports and synthesis booklets on specific topics, iv) extra tabulations on NSOs' websites, v) do-it-yourself tables and graphs that allow users to design tables by selecting variables collected by the survey, vi) meta-data with detailed methodology and questionnaires, vii) micro-data made accessible to users.

The production of thematic reports coming in supplement to the developments in the main report, could be tasked to the working groups of stakeholders established in the preliminary phase of TUS implementation (see section 3.1) and maintained during the whole implementation on various topics, for instance: work-life balance,

commuting, sports and leisure, use of mass media and ICTs, supervisory care, wellbeing (see the example of Moldova in section 2.2 infra).

A special mention is worth to be made of quarterly reports prepared by Colombia's NSO (DANE) during the COVID-19 pandemic: by providing political authorities and other users with rapid assessments based on the on-going TUS, DANE publicized TUS findings and showed how policy-makers can make good use of them (DANE 2021a and 2021b).

Recommendations concerning products and outputs of a TUS

i) A detailed report of main findings should be released shortly after the completion of the survey.
ii) The report of main findings should include a comprehensive summary of the methodology, analyses of main detailed time-use activities and basic detailed tables, all disaggregated by sex.
iii) The report should be in open access on NSO's website in PDF format and accompanied with extra tabulation in XLS format.
iv) The main report should be accompanied by synthetic and illustrated/attractive summary booklets/infographics for a wider audience.
v) Metadata, including detailed methodology and questionnaire templates should be in open access on NSO's website.
vi) Microdata should be accessible upon demand, with a detailed methodology.
vii) Detailed thematic reports should be produced regularly in a relatively short lapse of time by working groups involving stakeholders and academics, also accompanied by synthetic and illustrative booklets.

3.9.2. Main outcomes of TUS

In the immediate aftermath of a TUS, several main outcomes should result from the implementation of a national TUS:

i) the development of a satellite account of household production is all the more important that the new revision of the SNA in 2025 recommends the establishment of extended accounts (inclusive of household unpaid services work) for the compilation of GDP (see the experience of Colombia 2021, Morocco 2023, Senegal 2023, Georgia 2024 and Bangladesh and Kenya 2025 in progress);

Box 3: Satellite accounts of household production: Integrating unpaid work into economic indicators.

Going beyond gross domestic product is not a new concern. Since their origins, the national accounts have removed – for excessive recourse to imputed values - the provision of unpaid services by the households for their own use whereas previous conceptions of work by the economists included it. Only the production of goods for own final use (including the collection of water and wood/fuel, as extractive goods) was maintained in the SNA production boundary. The 4th revision of the SNA in 1993 introduced the notion of satellite account but without mentioning household production and focusing on environmental accounts in particular. However, it encouraged experimental attempts in measuring unpaid household production, among other areas (such as health, education, tourism, social protection, etc.). Satellite accounts were meant to adopt a more extensive notion of production but the results of these reflections were excluded from the central framework of the

accounts. The 5th revision in 2008 was more explicit and qualified unpaid household production as a potential area for such an exercise. It must be said that since the 1970s, the development of time use surveys in high income countries had provided data that made it possible to impute monetary values to the number of hours spent on unpaid work, giving rise to the first tentative estimates of unpaid labour inputs. The report by the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen and Fitoussi 2009) recognized the importance of time-use measurement and recommended broadening income measure to non-market activities while showing methods and examples of such valuations. The 6th revision of SNA (2025) enshrines the said recommendation under the broader umbrella of well-being and enters in more details into the preparation of extended accounts of household unpaid service work (chapters 34 on 'Measuring well-being' and 35 on 'Measuring the sustainability of well-being', drafted by the Inter-Secretariat Working Group on National Accounts and endorsed by the Statistical Commission).

National experiences in compiling accounts of unpaid household work have been numerous, especially in Europe and led to the methodological guide prepared by UNECE (2017) based on previous works by EUROSTAT (Eurostat 2003, Varjonen and Hamunen 1999; Varjonen et al. 2013). Encouraged by the Beijing Platform of Action, developing and emerging countries not only started conducting time-use surveys but also used their findings for measuring the unpaid labour input in monetary terms and compare it with GDP measures. These efforts are often described as satellite accounts, though incomplete. To-date, some 40 countries have made such estimates, but the number of countries that completed full extended accounts is lower. Imputing the occupational wage rate of a generalist (or specialist) worker as replacement cost for the hours spent on the various corresponding unpaid domestic and care services is the most common method requiring time-use and wage data. To go beyond the unpaid labour input estimates and complete the full extended account (through the production, the generation of earned income account and the extended supply and use table), data are required on detailed household expenditures including durables (for which related price indices for at least ten years are also necessary), from which can be derived the intermediate consumption entering into the household unpaid service work as well as the stock of capital, depreciation and return to capital.

The multiplication of national experiences should strengthen and harmonise the methodologies and pave the way towards full integration in the SNA central framework.

ii) time poverty measures allow assessing to what extent the disproportionate burden of homework falling on women's shoulders leaves insufficient time to dedicate to income-generating activities and globally impact on free time and personal care;

Box 4: Time poverty measures

The basic assumption lying behind the concept of time poverty is that the high burden of women (compared to men) in unpaid care work (in terms of number of hours in a day) prevents them to devote more hours (if any) to paid work and therefore maintains them in poverty as measured in monetary terms or in multidimensional terms. It also implies an impact of overwork (both paid and unpaid) on leisure and personal care, especially sleep and rest. A broader conception defines time poverty as the lack of time left for rest and leisure due to an excess of time spent at work (paid and unpaid).

Several main issues are to be solved:

1) Define a threshold or time-poverty line: generally, it is a relative measure (fraction or multiple) of the median value of total individual working hours.
2) How to measure poverty at individual level as well as at household level? A crucial issue is that it should not be allowed that the time deficit of an individual in the household be compensated by the time surplus of another individual of the same household.
3) How to measure the levels (time poverty thresholds) at which the number of hours spent in unpaid work impacts the number of hours spent in paid work and the number of hours spent in personal care and/or leisure?
4) How to take into account that paid work is not positive (or preferable to unpaid work) per se if it is performed under harsh conditions and for low pay, or at the detriment of well-being and health of other household members. An interesting example of such research is the Levy Institute Measure of Time-Income Poverty (LIMTIP) that was applied to Argentina, Chile and Mexico (Zacharias 2011; Zacharias et al. 2012) and later on, Turkey and several sub-Saharan African countries.

iii) care needs assessments, especially for early childhood and dependent elderly, that allow governments to design care policies and plan investments in early childhood infrastructures and disabled/ dependent elderly infrastructures (See the examples of Kenya 2023 and Albania 2024);
iv) the measurement of the care economy and its assessment as a potential source of employment and economic growth (See example of Albania 2024). The aim is to lay the foundations for a better understanding of how the care economy works and its potential;

Box 5: Assessing care needs and measuring the care economy

A care needs assessment and the measurement of the care economy require to be based on time-use survey results.

The demand for care can be measured by the time household members spend on caring children (aged less than 3 and of preschool age), elderly and disabled and the supply is equivalent to the capacities of infrastructures and human resources provided in these domains by the State, the private sector, the domestic workers and the non-profit and community sectors. Given that existing capacities do not match with the demand from households, there is a socioeconomic impact of such imbalance on female labour force participation rates, on time poverty, on the well-being and health of mothers and children. The volume of investments, the creation of jobs and the impact on budgetary expenditures and fiscal revenues that could result from policies addressing these questions can be calculated (Addati et al. 2018, Ilkkaracan 2021). The ILO developed a Global Care Policy Portal where 60 legal and statistical indicators on maternity protection, paternity leave, parental leave and other care leave and non-discrimination policies, as well as childcare and long-term care services are provided for 180 countries. A care policy investment simulator allows simulations on how to close care policy gaps and benefit from investing in the care economy.

The measurement of the care economy consists of measuring the volume of hours spent on direct care and indirect care (domestic tasks), possibly converted into full-time equivalent workers and comparing this invisible workforce with paid employment in the care sectors (education, health, social work), in care professions outside the care sectors, as well as domestic workers. The care economy appears like an iceberg, with an outsizing invisible part, all sub-components being dominated by women.

v) the design of evidence-based care policies and women's empowerment policies:

vi) the promotion of new uses of TUS data:
- informing gender responsive budgeting,
- exploring the relationship between gender and environmental sustainability through policies addressing the reduction of time spent by women on collecting water and wood/fuel to enhance women's livelihoods,
- addressing health issues by the analysis of the impacts of unpaid work on women's mental and physical health.

Recommendations concerning main outcomes of a TUS

i) The compilation of a satellite account of household production is recommended, soon after the completion of a TUS.
ii) The measurement of time poverty that helps tackling the feminization of poverty.
iii) Conducting a care needs assessment of early childhood is recommended soon after the completion of a TUS.
iv) Assessing the care economy as a potential source of economic growth.
v) Design of care policies and women's empowerment policies.
vi) Promote other uses of TUS on fiscal and budgetary, environmental and health issues with gender lens.

3.9.3. Dissemination

In relation with the preliminary activities of sensitization and mobilisation organised at the beginning of the process (see section 3.1 supra) with a wide range of stakeholders, a validation workshop and a final conference presenting the main findings are generally organised, offering opportunities to reach a wide audience through the press and the media.

It is not uncommon, however, that misunderstandings persist and show up in the newspapers' headlines because of the difficulties of apprehending correctly some time-use concepts (such as time spent by total population that can be added up to 24 hours, as opposed to time spent by participants that cannot be added up to 24 hours). Efficient dissemination thus requires a good amount of time for explaining the ins and outs of TUS findings, hence the necessity of producing illustrated and understandable booklets of main findings in parallel with the main report.

Once the final conference of presentation of the main findings of a TUS is over, activities should be planned for keeping interest in and use of results high, mobilising and commissioning working groups of stakeholders, civil society organisations and academics put in place at the beginning of the TUS process and maintained over the implementation of the survey. These specialised teams could be in charge of drafting reports and synthetic booklets on selected issues, such as those mentioned in section 3.9.1 above, work-life balance for instance.

Keeping interest on TUS also requires - at the least - an easy access to survey reports and data on the NSOs' websites. Practical experience gained from continuous search on NSOs' websites around the world shows that in many cases, the TUS remains well buried and difficult to access. Not to mention the cases where it is preferable to use Google search for being able to access the survey.

Lastly, academics and scholars have a role to play to maintain the interest in TUS findings over time and means of incentivization should be found to capture the interest of the academic world, so that conferences and scientific journals can be permeated with such topics, as the first step towards disseminating TUS findings in journals and magazines with a wider audience and ultimately in the mainstream media.

Recommendations concerning dissemination of TUS findings

i) Dissemination starts with a validation workshop shortly followed by an official conference with stakeholders, policy-makers, civil society organisations, academics and the media and where the report on main findings is released, as well as synthetic and illustrative booklets with infographics for facilitating a better understanding of main findings;
ii) On the longer run, a programme of publications on specific topics, using TUS data and drafted by ad-hoc commissioned multidisciplinary teams should be established in order to keep the focus on time-use data and ensure their relevance and usefulness for addressing topical issues;
iii) The survey report, on-line tables, metadata and microdata – and later on, the series of thematic reports and booklets - should be easily accessible on NSOs' websites on several windows as well as a dedicated one: it means that the materials should be found in various windows: household surveys, topics, indicators, publications and above all, time-use. Through all these windows, all materials should be accessible, at least via hyperlinks;
vi) Further works on satellite accounts of household production, assessments of time poverty, care needs, care economy and budgetary, environmental and health policies also provide opportunities to maintain interest and use of TUS data at a high level;
v) The role of scholars and academics in the dissemination of TUS findings should be emphasized: grants and rewards, sponsoring participation to international conferences could be put in place for encouraging the choice of TUS topics by new generations of students.

3.10. Funding gaps and sustainability

Time-use surveys come after living conditions surveys, labour force surveys and income-expenditures surveys in the priorities of statistical systems regarding household surveys. The results of these latter surveys depend on the continuation of important indices for policy-making design, monitoring and evaluation, such as the price index, the unemployment rate or the poverty rate. The inclusion of an indicator on time-use for SDG 5 target 4 is an attempt in this direction. Recent focus put on time poverty, share of household production in GDP, trends in the care economy, which can translate into indices, pursue such aims.

Hence the reason why, even in high-income countries, TUS have not always reached the regularity of other household surveys. Hence too the frequent adoption of the modular approach that allows the insertion of a light or full diary into another existing integrated or multipurpose household survey at lower cost.

While HETUS succeeds in maintaining a decennial regularity across European and near countries, with related support, other major countries have integrated in their budgets the implementation of TUS at regular intervals (every year in the US, 5 to 10 years in Mexico, India, China). In Latin America, the modular approach has also allowed to

collect TUS data at regular intervals in a handful of countries, without recourse to external funds. In the case of Mexico, it is important to emphasize the role of institutionalization: the National Time Use Survey (ENUT) has been officially declared a data source of national interest. This designation makes its collection mandatory and ensures that Congress must allocate the necessary resources by law. This institutional achievement is the result not only of the value demonstrated through statistical results, but also of sustained advocacy efforts led by the national mechanism for the advancement of women (formerly the Women's Institute and now the Women's Secretariat), in coordination with civil society organizations. These efforts have been closely tied to the broader objective of establishing a National Care System with legal backing.

More generally, institutionalization of time-use measurements has been an effective way for ensuring the sustainability of time-use surveys implemented by NSOs in Latin America (Table 10 below).

Table 10: Examples of rules establishing the collection of time-use data

Country and year	Legal framework for the generation of time-use data
Argentina, 2019	Law No. 27532, National Time-Use Survey: The National Time-Use Survey is included in the National Statistical System as a module of the Permanent Household Survey (EPH). Art. 6: The National Time-use Survey shall be carried out permanently every two years.
Argentina, City of Buenos Aires, 2003	Law No. 1168: The Department of Statistics and Censuses of the Government of the City of Buenos Aires shall systematically and periodically investigate the distribution of the use of time.
Bolivia (Plurinational State of), 2009	Political Constitution of the State, Article 338: The State recognizes the economic value of household work as a source of wealth, and it must be quantified in public accounts. Through a bi-ministerial mandate, the National Institute of Statistics (INE) is instructed to include the measurement of unpaid work among its work areas, raising its profile for the purpose of generating public policies to enable the population to achieve the conditions needed to "live well".
Colombia, 2010	Law No. 1413 of 2010: Regulates the inclusion of the Care Economy in the System of National Accounts to measure women's contribution to the economic and social development of the country and as a fundamental tool for the definition and implementation of public policies. Ensures time-use surveys are conducted continuously with the periodicity defined by the National Administrative Department of Statistics (DANE). Nonetheless, the interval between one measurement and another may not exceed three years.
Costa Rica, 2015	Law No. 9325 of October 19, 2015: On accounting for the contribution of unpaid domestic work in Costa Rica. Guarantees the frequency of the time-use survey (the period between one measurement and another may not exceed three years) and specifies how it will be financed.
Ecuador, 2008	The Political Constitution of Ecuador recognizes the need to quantify and highlight the contribution of care-giving for people, own-use production and self-sustenance.
Trinidad and Tobago, 1996	Law No. 29 of 1996: Provides for periodic surveys to be undertaken on unpaid work.
Uruguay, 2006	Law No. 18104, Equal Rights between Men and Women: The actions of the National Plan for Equal Opportunities and Rights include conducting studies that quantify and make visible the contribution of women's unpaid work.

Source: United Nations ECLAC (2022).

Elsewhere though, the implementation of TUS remains heavily dependent on external funding, multilateral or bilateral. However, as we know, these sources are under severe cuts.

UN Women and ILO bring expertise at conception, analysis and publication and dissemination stages, in support to NSOs mainly thanks to programmes which they are in charge of (such as the Women Count Programme), as long as other sources of funding supplement the major cost of data collection (staff of interviewers, transport costs, CAPI tools, etc.).

The World Bank and the regional development banks - the African Development Bank (AfDB), the Asian Development Bank (ADB) or the Interamerican Development Bank (IDB) – appear to be natural funding partners, though through lending programmes. Bilateral agencies occasionally contribute and more rarely international CSOs.

Table 11 synthesizes the landscape for a few recent TUS - mainly carried out under the Women Count Programme with the support of UN Women.

Table 11: Stakeholders and sources of funding for recent TUS in various countries

Countries	Years	Survey and type of TUS survey	Women Count	Multilateral	Bilateral	Other
Africa						
Benin	2015	EMICOV Modular diary			German Cooperation implemented by GIZ GmbH	
Kenya	2021	KCHS Modular diary	UN Women	World Bank		OXFAM GB
Senegal	2021	Stand-alone diary	UN Women		AFD	
Sierra Leone	2023	Stand-alone diary		World Bank		
Tanzania	2018	HBS Modular diary	UN Women	World Bank UNICEF	Irish and Swedish Embassies Global Affairs (Canada)	
Zanzibar				World Bank UNDP UNICEF		Bank of Tanzania
Tanzania	2021	ILFS Modular diary		ILO EU (European Trust Fund) World Bank		
Uganda	2017-18	Stand-alone diary	UN Women		UK Aid	
Asia						
Bangladesh	2021	Stand-alone diary	UN Women		Australia Government	
Viet Nam	2022	Stand-alone diary		World Bank		
Eastern Europe						

Armenia		Stand-alone diary	UN Women	World Bank		
Belarus	2024-25		UN Women			
Georgia	2021	Standalone diary	UN Women		Ministry of Foreign Affairs (Norway)	

In many cases, UN Women has played a role of coordination in order to mobilize other funding agencies.

The observed combinations depend on the priorities defined at global level as well at local level by the various actors. It means that a good knowledge of programmes funded at country and regional level by the main agencies is necessary.

The objective should be to design a stand-alone TUS as a first round and modular TUS in the following years, until the next stand-alone survey. Given that potential funders may be already involved in on-going or planned household surveys, the modular approach can retain their interest. It seems that this latter approach is going to be given priority in Western, Eastern and Southern Africa, especially with the application of the ILO add-on light diary module, currently implemented in Zimbabwe as a module of the quarterly labour force survey. This experience could serve as a first example that is likely to be reproduced in other countries of the region.

Recommendations concerning fund-raising and sustainability

i) Draft of a clear and intelligible presentation of the planned TUS, with comprehensive objectives and detailed outputs and outcomes and a reasonable budget with timelines;
ii) Present the project under two optional methodologies: stand-alone or modular;
iii) Mapping of the various stakeholders and potential sponsors with their on-going or planned programmes in the country, in the region or in general;
iv) Identify the outputs and outcomes matching with the particular interest of potential funders and draft proposals accordingly;
v) Sequence the project in phases and the budget in installments over the course of the project;
vi) Adapt and articulate the future outputs and outcomes of the TUS with the identified needs or priorities of stakeholders that are likely to sponsor the survey or parts of the survey process (for instance a module, or the expertise at some points of the survey: preliminary workshops, conception, training sessions, fieldwork, analysis, publications, etc.);
vii) Institutionalize data collection on time-use in the law.

3.11. Evaluation

Although we have not reviewed the evaluation procedures for the time-use surveys under scrutiny in this report (mostly due to the absence of written documentation), it is important to recall that it is a crucial – and last - step in GSBPM, required for ensuring further sustainability of the surveys.

Evaluation is a fundamental element for improving both the quality and relevance of survey results. Beyond that, it also plays a key role in raising awareness among

decision makers about the importance of having timely, high-quality data. In Mexico for example, consultations with specialists and data users have proven extremely valuable for identifying necessary updates, such as incorporating new forms of work, like teleworking, which often overlap with unpaid domestic and care activities.

Among the key domains of evaluation, it is worth encouraging reflection on the alignment between time use classifications and economic classifications, such as those used in economic censuses, which may include the registration of establishments providing care services. The development of the various enumerated outcomes requires building correspondences between ICATUS, ISIC, ISCO, COICOP or also the main sectors and products of the Supply and Use Table (SUT) and harmonization is also important in this regard. For instance, in the extended accounts of household production, it is common to distinguish several functions such as nutrition, housing, clothing, care, transport and the contents of these functions may induce contradictory decisions. “Pet care for example” would rather be classified in “housing” (with gardening) and not in “caring” (for humans); and the same for “household management”. “Shopping” is a more debatable matter depending on the products purchased: given that food products are the most common and frequent, the classification in “nutrition” can be acceptable.

In this regard, it would be beneficial to promote coordination within National Statistical Offices (NSOs), particularly among departments responsible for harmonizing concepts and classifications. Such collaboration could significantly enhance the relevance and coherence of data collection instruments and strengthen their contribution to public policy development.

Recommendations on evaluation

i) Further to data collection and dissemination of results, an in-depth evaluation of the whole process should be undertaken with the various departments of NSOs and the various stakeholders that have participated in the process, to draw the lessons, identify the gaps and the possible improvements;
ii) The evaluation ends in an action plan dealing with all steps of the process, for the next round of the time-use survey.

3.12. Ethical and safety procedures

Time-use surveys are submitted to usual confidentiality rules stated by the UN Fundamental Principles of Official Statistics and generally enshrined by national statistical laws, guaranteeing that data collected are strictly confidential, used exclusively for statistical purposes and submitted to anonymization techniques and disclosure checking procedures. Statistical questionnaires generally recall such principles and interviewers introduce the survey with this reminder. In this regard, TUS are particularly exposed in the sense that their object may seem especially intimate and intrusive. Interviewers are generally well trained to introduce themselves and the survey with these preliminary reminders. Even more caution is recommended when, for example, shifting from CAPI to CATI, the phone number of the respondent is requested for further telephone interview. The enquire must be polite and suggested only if the respondent finds it easier and more appropriate to

use this means rather than sitting-by to respond to the face-to-face interview. During lockdowns, the shift looked obvious and respectful of the safety procedures from the part of both the interviewer and the interviewee. This was the minimal condition for surveys to continue in a time of pandemic.

Due to their intimate character, TUS may also require a gender-sensitive approach regarding the interviewers, especially in some countries: women interviewed by women and men by men. It also points to the necessary gender parity in the recruitment of interviewers.

Recommendations on ethical and safety procedures

i) Train interviewers to the rules of confidentiality and how to share them with interviewees;
ii) Recommend to conduct interviews in absence of a third party from outside the household and even, when appropriate, from the household;
iii) Recruit interviewers on a gender parity basis and allocate interviews according to gender of interviewers and respondents;
iv) Respect the applicable safety procedures.

CONCLUSION

Although only four countries (out of 14) have started data collection on time-use during Phase 2 of the Women Count Programme, faced with difficulties in mobilizing financial and human resources, the domain does not remain inert.

The World Bank supported stand-alone time use surveys based on diaries in Vietnam (2022) and in Sierra Leone (2023).

In sub-Saharan Africa, where fund raising revealed difficult for implementing full time use surveys, it seems that there could be a momentum for the ILO light time use module attached to labour force surveys, a category of surveys that is currently expanding in the region. Tested in Malawi, a full-size implementation started in Zimbabwe through the first round of LFS 2025. In South Africa where a new stand-alone TUS is not predictable, the ILO light module is looked at with interest, although Stats South Africa was thinking to attach a TUS module to another multipurpose survey (not LFS). Kenya is also interested in the approach. The ILO methodology could also expand in Western Africa.

In the Middle East North Africa region, only Morocco is about to launch a full stand-alone time use survey in 2025-26. Bahrein and the United Arab Emirates once showed interest in implementing a TUS, but projects in this sense are not on track.

In Asia, the ILO also tested its light module in Indonesia and Nepal should embark into its inclusion in 12-month LFS. Other time-use projects are maturing for the Pacific islands, with special emphasis on supervisory care.

In Latin America, time use surveys have begun to become regular in NSOs' statistical agendas either as stand-alone surveys (Columbia, Mexico) or modular surveys such as living conditions multipurpose surveys.

If the objective of stand-alone time use surveys must be maintained, the restrictions in funding make it necessary to consider modular surveys to host TUS modules. In this regard, the light diary module conceived by the ILO is not the only instrument to be considered. Other lighter diaries or the full diary itself can easily be included in all kinds of household surveys, as shown by the experience of many emerging countries. This solution seems to be also envisaged in developed countries.

From this point of view, it will be interesting to look more in depth at the Japanese experience (systematic parallel collection of time use data through a full diary and a light diary), or the Armenia experience, which conducted a stand-alone time-use survey with full diary in 2024, while, in parallel, introducing a list of stylised questions on production of goods for own use, production of services for own use and voluntary work, in its quarterly labour force survey.

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ANNEXES

ANNEX A: TIME-USE SURVEYS ACROSS THE WORLD

Table A 1: List of time-use surveys by year and region: 103 countries, 276 surveys (63 countries repeated their surveys at least once)

North Africa (4 countries /4 surveys)	**Arab countries** (4 countries /6 surveys)	**Sub-Saharan Africa** (19 countries /26 surveys)	**Eastern Asia** (6 countries/ 29 surveys)	**South-Eastern Asia and the Pacific** (5 countries /14 surveys)	**Southern Asia** (6 countries /11 surveys)	**Central and Western Asia** (7 countries /18 surveys)	**Latin America** (17 countries /38 surveys)	**Northern, Western and Southern Europe** (26 countries /84 surveys)	**Eastern Europe** (7 countries/19 surveys)	**Northern America** (2 countries /27 surveys)
Algeria (2012)	Iraq (2007)	Benin (1998) (2015)	China (2008) (2018) (2024)	Australia (1992) (1997) (2006) (2020-21) (2024)	Bangladesh (2021)	Armenia (2008) (2023-24)	Argentina (Buenos Aires) (2005) (2021)	Albania (2010-11)	Belarus (2014-15) (2024-25)	Canada (*1986*) (1992) (1998) (2005) (2010) (2015) (2022)
		Burkina Faso (2018)			Bhutan (2006-07) (2015)			Austria *(1992) (1998)* (2008-09) (2021-22)		
								Belgium (*1966*) (1999) (2005) (2013)		
Egypt (2015)	Oman (1999-2000) (2007-08)	Cameroon (2014) (2022)	Hong Kong China (2002) (2013)	Cambodia (2004) (2019)	India (1998-99) (2019) (2024)	Azerbaijan (2008) (2012)	Brazil (2016) (2017) (2018)	Croatia (2022-23)	Bulgaria (2001-02) (2009-10) (2022-23)	United States (2003) (2004) (2005) (2006) (2007) (2008) (2009) (2010) (2011) (2012) (2013) (2014) (2015) (2016) (2017) (2018) (2019) (2021) (2022) (2023)
		Cabo Verde (2012)						Denmark (1965) (*1975*) (*1987*) (2001) (2009)		
		Ethiopia (2013)					Chile (2015) (2023)	Estonia (1999-2000) (2009-10) (2019-21)		
								Finland (1979) (1987-88) (1999-00) (2009-10) (2020-21)		
Morocco (2011-12)	Occupied Palestinian Territory (1999-2000) (2012-13)	Ghana (2009)	Japan (1976) (1981) (1986) (1991) (1996) (2001) (2006) (2011) (2016) (2021)	New Zealand (1998-99) (2009-10)	Iran, Islamic Rep. of (2009) (2014-15) (2019-20)	Georgia (2021)	Colombia (2012-13) (2016-17) (2020-21)	France (1974) (1986) (1999) (2010)	Hungary (1976-77) (1986-87) (1999-2000) (2009-10)	
								Germany (2001-02) (2012) (2022)		
								Greece (2013-14)		
Tunisia (2005-06)	Qatar (2012-13)	Kenya (2021)		Thailand (2001) (2004) (2009) (2014-15)	Pakistan (2007)	Kazakhstan (2003) (2006) (2012) (2018) (2024)	Costa Rica (2004) (2017) (2022)	Ireland (2005)	Moldova (2011-12)	
		Lesotho (2003)						Italy (1988-89) (2002-03) (2008-09) (2013-14)		
		Liberia (2010)						Latvia *(1996)* (2003)		
		Madagascar (2001)	Korea, Rep. of (1999) (2004) (2009) (2014) (2019)	Vietnam (2022)	Sri Lanka (2017)	Kyrgyzstan (2000) (2005) (2010) (2015) (2021)	Cuba (2001) (2016)	Lithuania (1990) (2003)	Poland (1976) *(1984)* (2003-04) (2013) (2023)	
							Dominican Rep. (2009) (2016) (2021)	Luxemburg (2014)		
								Malta (2002)		
		Mali (2008)	Mongolia (2007) (2011) (2015) (2019) (2023)			Tajikistan (2023)	Ecuador (2005) (2007) (2012)	Macedonia, Former Yugoslav Rep. of (2004) (2009) (2014-15)	Romania (2000) (2011-12)	
							El Salvador (2010) (2017) (2022)	Netherlands (1975) (1980) (1985) (1990) (1995) (2000) (2005-06) (2010-11) (2015-16)	Russian Federation (2014) (2019)	
		Mauritius (2003) (2018-19)	Taiwan (1987) (1994) (2000) (2004)			Turkey (2006) (2014-15)	Guatemala (2000) (2011)			
		Nigeria (2024-25)					Mexico (2002) (2009) (2014) (2019)	Norway (1970) (1980) (1990) (2000) (2010) (2023)		
		Réunion (2010)						Portugal (1999) (2015)		
		Senegal (2021)								
		Sierra Leone (2023)					Nicaragua (1998)	Serbia (2010-11) (2015) (2021-22)		
		South Africa (2000) (2010)						Slovenia (2000-01)		
							Panama (2011)	Spain (2002-03) (2009-10)		

		Tanzania (2006) (2014) (2017-18) (2020-21)					Paraguay (2016)	Sweden (1990-91) (2000-01) (2010-11) (2021)		
							Peru (2010)			
		Uganda (2017-18)					Uruguay (2007) (2013) (2022)	Switzerland (1997) (2000) (2004) (2007) (2010) (2013) (2016) (2020)		
							Venezuela (2023)	UK (2000) (2005) (2015) (2020-23)		
Note: Updated July 2025 highlighted in yellow: not published yet. In orange: not comparable methodology.										

ANNEX B SECTION 2.1 REVIEW COUNTRIES WOMEN COUNT PHASE 1

Review

Phase 1:
Bangladesh, Colombia, Georgia, Kenya, Senegal, Tanzania/Zanzibar, Uganda

Phase 2:
Albania, Argentina, Armenia, Belarus, Egypt, Ethiopia, Kazakhstan, Kyrgyzstan, Mexico, Moldova, Morocco, Nigeria, North Macedonia, South Africa.

To this list we add for benchmarking:

Cameroon, Chile, Russia, Tajikistan.

Note: Armenia and Nigeria are highlighted in yellow because they are ongoing surveys, as of July 2025.

Table B 1: Review Time-Use Surveys for Women Count Phase 1. Main characteristics of the surveys

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania mainland/Zanzibar	Uganda
Year of survey	2021	2020-21	2020-21	2021	2021	2017-18	2017-18
Prior surveys	Pilot 2012	2012-13 2016-17	-	-	-	ILFS 2006, 2014, 2020-21 (same module as HBS)	-
Planned survey or repetition		2024-25			2026?	HBS 2024-25	-
Reference period	January 24 to April 12	September 2020-August 2021	September 2020-September 2021	January to December 2021	19th May-19th September 2021	1st December 2017-30 November 2018	December 2017-April 2018
Duration (in months)	2 months	12 months	12 months	12 months in 4 cycles of 24 days each	4 months	12 months	4 months
Type of survey	Stand alone	Stand alone, multipurpose	Stand alone	Module of Kenya Continuous Household Survey (KCHS)	Stand alone	Module of Household Budget Survey (HBS)	Stand alone
Type of data collection	PAPI Face-to-face interview	CAPI?	CAPI and self-administered diaries on paper. Phone interview during COVID-19 lockdowns (CATI)	CAPI	CAPI	CAPI	CAPI
Number of diaries	One	List of 67 stylised questions	2 diaries weekday/ weekend day	One	One	One	One
Eligibility	Selection of two members 15+ (one male, one female)	All members 10+	Kish grid for selecting 2 members 15+	Kish grid for selecting 2 members 15+	All members 15+ up to 4, Kish grid for selecting 2 women and 2 men in households with more than 4 members	Random selection of one member 15+	Random selection of 1 adult male and 1 adult female 14+
Classification	ICATUS 2016	ICATUS 2016	ICATUS 2016	ICATUS 2016	ICATUS 2016	ICATUS 2016	ICATUS 2016
Pilot Pre-testing			In August 2020, 80 households were surveyed across capital, other urban and rural areas	1/5 randomly selected from sample 4th quarter 2020 for pilot	Yes in Dakar (decision to opt for 15 as minimum age)	Pilot June 2017 in 2 regions	Pre-test one week with at least 3 visits per household

Table B 2: Review Time-Use Surveys for Women Count Phase 1. Sampling methods

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/Zanzibar	Uganda
Sampling households	Two-stage cluster sampling stratified for urban/rural	Two-stage cluster sample design stratified for urban/rural and 6 regions	Two-stage cluster sampling stratified for capital/other urban/rural	Two-stage stratified sample (urban/rural)	Two-stage stratified sampling (urban/rural)	Two-stage cluster sample design stratified for urban/rural and 26 regions	Two-stage stratified sampling (urban/rural and 4 regions)
Sampling frame	Population census 2011	Population census 2018	Population Census 2014	Household Master Sample Frame based on 2019 Population Census	Population census 2013	Population census 2012	Population Census 2014
Sampling individuals	Selection of two members 15+ (one male, one female)	All eligible members 10+	All eligible members 15+	Kish grid for selecting 2 members 15+	All members 15+ up to 4, Kish grid for selecting 4 in households with more than 4 members	Kish grid for selecting 1 member 15+	Kish grid for selecting 2 members 14+
Sampling days of the year		Not applicable	Sample PSUs allocated across 52 weeks. Two sampled PSUs in each stratum randomly allocated to each week. Thus, for each week, a total of six sample PSUs comprised the time allocation sample. For a given week, each of the sampled households from a sampled PSU were assigned two diary-day combinations —a weekday and a weekend day		Random selection of one day among the 7 previous days		
Number of households	8,000	49,519	3,680	16,945 No replacement	3,968	9,465	3,364 in contradiction with appendix III (6,024)
Number of individuals	17,770		6,074	24,004 No replacement	11,689		4,296
Number of diaries	Not provided	Not applicable	5,721 weekday diaries and 5,713 weekend diaries				Not provided
Non response rate household			36.7%	13.2%	0.6%	1%	4%
Non response rate individuals				17.5%	2.86%		36.1%
Non response rate diaries							

Table B 3: Review Time-Use Surveys for Women Count Phase 1. Weighting and imputation/adjustment procedures

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/Zanzibar	Uganda
Weighting households	Inverse of probability sampling Sampling errors	Inverse of probability sampling	Following the sample design, basic household and individual weights were calculated as the inverse probability of selection into the sample. These basic weights were adjusted for non-response and for population benchmarks.	Inverse of probability sampling, stalled with population projections	Inverse of probability sampling, stalled with population projections	Sampling errors	Sampling errors
Weighting individuals		For most time-use stylised questions an option is given to respondent: "None", which allows calculating participation rates		EA level household weights are multiplied by the inverse of the probability of selecting an eligible individual within an EA to get the EA level individual weights. Post-stratification then applied at stratum level using projected population of the 15 years and above at mid-year of 2021. In a time-use survey, the individual weight would be applicable if data was collected for the sampled individual for the entire period of the survey, however, this was not the case for the time-use module. An additional weighting factor was computed to cater for sampling of the time periods			
Weighting diaries		-	The diary-day weights were calculated based on the adjusted individual weights	The time dimension weighting factor for producing person/day estimates was computed by dividing the number of days in a quarter by the number of days a person was sampled to report on, which was one day in this case. The overall weight for estimating person/days was obtained by multiplying the number of days in a specific quarter by the total number of eligible individuals in the population in that particular quarter. To adjust for weekend and weekday time use dynamics, a calibration estimation was undertaken. The weights for weekend person/days were post-stratified to total number of available weekend person/days in the quarter to reduce coverage bias as well as make sure that the estimates are consistent with known population totals.			Sampling errors in appendix
Checking consistency with popula-tion structure and other	Profile of respondents not compared with population	Systematic comparison with results from the large integrated household survey	Basic weights adjusted for non-response and for population bench-marks Diary-day	Parent survey is the source to which compare with population structures, but no check with population projections	Profile of respondents not compared with population		Profile of respondents not compared with population structures from other sources

characteristics of population	structures from other sources	(GEIH) conducted same year in a specific publication	weights calculated based on adjusted individual weights		structures from other sources		

Table B 4: Review Time-Use Surveys for Women Count Phase 1. Questionnaires

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/Zanzibar	Uganda
Type of questionnaire	Diary	Stylised questions	Diary adapted from HETUS	Diary	Diary	Diary	Diary
Background characteristics Household	Household questionnaire with list of members with their demographic characteristics + Housing + equipment and durables + labour	Multi-purpose questionnaire with a module of stylised questions on time-use. All modules of the questionnaire are parts of the time-use survey	Socio-demographic data on every member of the household, including sex, age, functional difficulties, family relationships between household members, types of caregiving and domestic services used, household income; use of household appliances, Internet, vehicles and heating in the home.	Parent survey KCHS with 18 modules	Household questionnaire with list of members with their demographic characteristics + Housing + equipment and durables	Parent survey (HBS)	Household questionnaire limited to list of members with few characteristics
Background characteristics Individual	Included in household questionnaire		Sex, age, ethnicity, level of education, health status and activity limitation, employment status, occupation, industry, hours worked, nature of enterprise/ farm/business	Parent survey KCHS	Included in household questionnaire	Parent survey (HBS)	Individual questionnaire with detailed characteristics, attitudes toward gender equality, use of watch, day of the week
Diary	1 diary per person		2 left-behind diaries per person	1 diary per person Typical day, enjoyment-the most	1 diary per person, Individual characteristics introducing the diary: Age, sex, number of children 0-17, Internet use, Typical day or not	1 diary per person, General questions: typical day, enjoyment-most, -least, general	1 diary per person, including typical day, enjoyment, after filling diary
Time slot	30 minutes up to 3 activities	Not applicable	10 minutes	1 hour with several activities	15 minutes with two activities (consecutive or parallel)	1 hour up to 5 activities, with duration	1 hour up to 5 activities, with duration
Contextual variables	For whom, with whom, where, paid or profit	Not applicable	For whom, with whom, where, means of transport, use of internet devices	For whom, with whom, where, means of transport, paid or profit	For whom, with whom, where	Payment (10 codes), Location (12), Means of transport (10)	Location, means of transport
Simultaneous activities	Yes, with question "Did you do anything else at the same time?"	An additional question about pre-listed parallel activities (household management, work, other, none) undertaken while supervising children or dependent adults. Three most common open combinations	Yes, with question "What else were you doing?"	Yes, with question "same time?" to identify simultaneous among the several activities listed for the time slot	Yes, based on the record of two activities per time slot	Yes, with question "same time?" to identify simultaneous among the 5 maximum activities	Yes, with question "same time?"
Supervisory care	To the extent that "passive care" is a category of ICATUS	Yes, to the extent that the gap between time spent in care activities with and without simultaneous activities is notable	To the extent that "passive care" is a category of ICATUS	To the extent that "passive care" is a category of ICATUS	To the extent that "passive care" is a category of ICATUS	For children, sick, elderly, disabled: 2 questions i) not mentioned all the time; ii)	To the extent that "passive care" is a category of ICATUS

						already mentioned all the time	
Additional module	Attitudes on gender equality and life satisfaction	Attitudes on gender equality and perception of time poverty		Attitudes on gender equality			

Table B 5: Review Time-Use Surveys for Women Count Phase 1. Indicators produced (by sex)

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/Zanzibar	Uganda
Average time by detailed activities	5 age groups (2 digit), urban/rural location (2-digit) educational level (1-digit), 8 administrative divisions (1-digit)	-	1-digit, 2-digit and aggregates contracted/ committed/free/necessary by background characteristic: location, age groups (4), activity status, educational attainment	1-digit, 2-digit, SNA/non SNA/learning/Non-productive aggregates by background characteristics: location, age group (5), marital status, religion, educational attainment, day of the week, activity status, household composition, household size, household headship Aggregates at county level	2-digit	1-digit by location, age group (4), educational level, marital status, disability status, region, above and below poverty line by location	(3-digit) by sex, all other variables (including 6 age groups) at 1-digit
Average time by detailed unpaid work activities, SNA/non SNA	Age group, location, marital status, educational level	-			Most tables (location, age groups-5) are at 1-digit or aggregated SNA/non SNA/not productive , or paid/unpaid (location, age group, educational level, marital status, poverty status, occupational status, weekday/weekend day, presence of children up to 10 years	-	Age group, urban/rural
Participation rates by detailed activities	-	SNA/Unpaid SNA/Non SNA (by main functions: nutrition, clothing, housing, shopping, administration, care of children under 5, physical care to members, help to members), 7 age groups, urban/rural location, 6 regions, activity status		1-digit and aggregates by background characteristics, or by county	1-digit	-	-
Time for participants by detailed activities	-			Aggregates, 1-digit by background characteristics, 2-digit by location		-	-
Proportion by detailed activities	For main aggregate unpaid activities	-	1-digit, 2-digit and aggregates	-	-	-	For main aggregate unpaid activities
Summary table average time, participation rates, time participants		-		3-digit	-	-	
Simultaneous activities	-	-	2-digit in on-line tabulations	Aggregates and 1-digit/location	1-digit and most frequent combinations	-	At 1-digit

Weekdays/ weekends days		-	Only for spent alone/with others by type of living arrangement, location and age group and for most pleasant/unpleasant/stressful activities	Aggregates, 1 and 2-digit	At 1-digit	-	At 1-digit, by region, urban/rural

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/Zanzibar	Uganda
Supervisory care	-	Tables on passive care	Tables for specific population at 3-digit, parents with children under 15 including simultaneous activities	-	Most frequent secondary activities associated with childcare	-	-
Specific population groups		Disabled/Ethnicity	Parents with children under 15/Youth/Elderly/ Disabled/Ethnicity			Disabled	
Special cross-tabulations			Domestic services by presence or absence of time-saving devices or services, Time pressure and work/leisure balance, Travel per purpose, Caregiving services by age of youngest child				
Timing and Episodes	-	-	Patterns of a 24-hour day	-	-	-	For unpaid care work -
Contextual variables		-	Time spent alone or with others, Appreciation of the day, of activities				
Other tabulation (not cross-cutting time)		Perceived impact of COVID-19 on paid work, income, share of domestic and care tasks, access to services					
Global estimates	-	-	-	-	-	-	-

Table B 6: Review Time-Use Surveys for Women Count Phase 1. Dissemination of output and outcomes

	Bangladesh	Colombia	Georgia	Kenya	Senegal	Tanzania/ Zanzibar	Uganda
Publication	2023	2022	2023	2023	2022	2019 2020 (Zanzibar) Chapter 9 of HBS report and sub-section of chapter 12 on gender for Zanzibar	2019
Tabulations	Annex of report	Separate xls files	On GEOSTAT website https://www.geostat.ge/en/modules/categories/784/survey-findings#	-	-	-	-
Metadata	Chapter of report	Section and appendix of the report	Chapter of the report and appendices	Chapter of the report	Chapter of the report	Chapter of parent survey, not focused on time-use	Chapter of the report
Microdata	Upon demand to NSO	Yes	??	??	Yes after registration on NSO's website		
Other dissemination products	Summary brief	Press release on main findings Three 4-month publications (press release) follow-up to COVID-19 crisis. Lessons learnt from conducting a survey by time of pandemics	UN Women report of unpaid work and gender inequality in Georgia		Synthesis booklet with main findings Statistical bulletin of the Ministry of Gender		
Access to report on NSO's website	Access on BBS website by search window, not thematic	Access on DANE website through topic society/poverty and living conditions	Access on GEOSTAT website by search window, not thematic On home page Key findings Time use survey	Access on KNBS website through general publications	Access on BBS website by search window, not thematic	Access by parent survey HBS on NSO's website	Access on BBS website by search window, not thematic
Global estimates	No	Yes	On-going	No	Yes	No	No
Satellite account	Soon released	Yes	On-going	Planned	Yes	No	No
Care economy assessment	No	Yes partly	No	Yes	No	No	No
Policy-oriented measures	Yes, child day-care bill	Yes		Yes, Development of a national care policy	Ministerial by-law towards 3Rs and action plan in process	??	??

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ANNEX C SECTION 2.2 REVIEW COUNTRIES WOMEN COUNT PHASE 2

Table C 1.1: Review of Time-Use Surveys for Women Count Phase 2. Main characteristics of the surveys

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Year of survey		2023-24				
Prior surveys	2010-11	2008	2014-15	2011-12	2014, 2019	2004, 2009, 2014-15
Planned survey or repetition	2025		2024-25		2024	
Reference period	March 2010-February 2011	September 2023-April 2024	April 2014-March 2015	June 2011-May 2012	August-September 2019	May 2014-April 2015
Duration (in months)	12 months	8 months	12 months	12 months	2 months	12 months
Type of survey	Stand alone	Stand alone	Stand alone	Stand alone	Stand alone	Stand alone
Type of data collection	Self-administered left-behind diary	Self-administered left-behind diary		Self-administered left-behind diary	Self-administered left-behind diary	PAPI face to face survey done by interviewers who visit households and filled in questionnaires for the household or questionnaire for non-response if applicable. The interviewers leaves the diaries for filling (diary for day of the week and diary for the weekend) for all persons over 10 years and over
Number of diaries	Two diaries weekday, weekend day	Two diaries weekday, weekend day	Diary	Diary	Two diaries 10-14 Two diaries 15+ Weekday/weekend day	Two diaries weekday, weekend day

Eligibility	All members 10+	All members 15-80	All members 10+	All members 10+	All members 10+	All members 10+
Classification	HETUS	ICATUS	Trial ICATUS	HETUS		HETUS
Pilot Pre-testing						Yes

Table C.1.2: Review Time-Use Surveys for Women Count Phase 2. Main characteristics of the surveys

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon
Year of survey				2024		2021-22
Prior surveys	2015	2013	2012	Failed pilot in 1998	2000, 2010	2014
Planned survey or repetition			2025			Yes
Reference period	March-April	February 2013	October 2011-September 2012	August/October for wet season, November/December dry season	October-December 2010	October 2021-September 2022
Duration (in months)	2 months	1 month	12 months	2+2 months	3 months	12 months
Type of survey	Stand alone	Stand alone	Stand alone	Stand alone	Stand alone	Module of Household survey ECAM
Type of data collection		Face-to-face interview	CAPI	CAPI	Face-to-face interview	CAPI
Number of diaries	One	One	One	One	One	One
Eligibility	Random selection of a male and a female 10+	10+	7-14 and 15+	Random selection (Kish grid) of two members 15+ (W/M)	Random selection (Kish grid) of two members 10+	All members 10+ (up to 6 members)
Classification	ICATUS 2006	ICATUS	Adapted from Trial ICATUS	ICATUS	Trial ICATUS (10 broad categories)	ICATUS
Pilot Pre-testing	2 successive Pre-tests on a small number of households	Pilot conducted from 20th July to 6th August 2012 in 900 households in 30 selected enumeration areas in all regions of the country.		Yes		

Table C.1.3: Review Time-Use Surveys for Women Count Phase 2. Main characteristics of the surveys

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan
Year of survey						
Prior surveys	2021	2015	2002, 2009, 2014, 2019	2006, 2012, 2018	2010, 2015, 2021	2023
Planned survey or repetition		Yes	Every 5 years : 2024	2024		
Reference period	October-December	21 September-13 December	21 October- 1 December	2 April-10 April		15 September-15 December
Duration (in months)	3 months	3 months	1 month	1 week		3 months
Type of survey	Stand alone	Stand-alone /stylised questionnaire	Stand-alone /stylised questionnaire	Modular	Module of the Integrated Household survey on consumption and labour force	Module of the Household Budget survey
Type of data collection		PAPI	CAPI		CAPI	
Number of diaries	One diary	Stylized questions	Stylized questions	2 diaries weekday/ weekend day	List of occupations: total duration is asked for the previous day	2 diaries weekday/ weekend day
Eligibility	Random selection one member 14+	All members 12+	All members 12+	All members 10+	All members 12+	All members 10+
Classification	CAUTAL Pictorial at 2-digit on the diary	CAUTAL, SNA	Mexican classification inspired from ICATUS 2012	ICATUS	Ad hoc in 51 items	HETUS
Pilot Pre-testing	November-December 2019	Pilot in 3 regions				

Table C 2.1: Review Time-Use Surveys for Women Count Phase 2. Sampling methods

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Sampling households	Two-stage stratified (4 geographic areas) sample	Two-stage stratified sample			Two-stage stratified sample	Two-stage stratified (8 regions, 16 strata) sample
Sampling frame	Population census 2001				Master sample Population census 2010	Population Census 2002
Sampling individuals	All members 10+	All members aged 15-80			All members 10+	
Sampling days of the week/year	Respondents were asked to fill in diaries for designated days selected at random and representing a specific time period in the year of data collection. Two diaries (weekday, weekend day) were allocated to each household. If the household and/or one or more household members were not able to fill in the diary for the designated days, the survey design allowed for postponement to the same day of the week up to three weeks later. Postponements should be avoided as far as possible.			Each household was assigned a specific day out of the 366 (reference day)		Two randomly selected days, one weekday and one day of the weekend (Saturday or Sunday)
Number of households	2,250	2,381	6,000	10,642	45,000	2,080
Number of individuals		6,292				
Number of diaries	10,333	4,258				
Non response rate household	8.5 (with replacement)	25.9		31.8	replacement of refusals	30.9 (20.4 refusals) No replacement
Non response rate individuals	11.6	3.0				
Non response rate diaries	30.7 (full completion)	34.0				

Table C 2.2: Review Time-Use Surveys for Women Count Phase 2. Sampling methods

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon
Sampling households	Two-stage stratified random sampling in 6 governorates of the 3 regions	Two-stage stratified random sampling (11 regions urban/rural)	Two-stage stratified random sampling	Two-stage stratified random sampling (4 regions: Borno (NE), Cross Rivers (SE), Kaduna (NW) and Lagos (SW). National aggregates still in discussion	Two-stage stratified random sampling (9 provinces, urban/rural)	Two-stage stratified random sampling (urban/semi-urban/rural in 10 regions)
Sampling frame	Master sample of 5,024 EAs	2007 population census	Master sample 2005 established on 2004 population census results		2001 population census	2005 population census
Sampling individuals	Kish grid to select 1 male and 1 female 10+	All members 10+	Kish grid to select 2 adults per household and one child every 5 households	Kish grid to select 1 male and 1 female 15+	Kish grid to select two members 10+	All members 10+ up to 6 (above 6: household head, spouse, one male one female 10-14, one male one female 15+)
Sampling days of the year						
Number of households	3,480	20,122	8,990	3,600		5,164
Number of individuals	6,895	52,262	16,395 adults 15+ 2,817 children 7-14	7,200	39,897	11,914
Number of diaries						
Non response rate household	5.3%	0.8% No replacement			12.5%	
Non response rate individuals		0.9%				
Non response rate diaries						11.6% (2014)

Table C 2.3: Review Time-Use Surveys for Women Count Phase 2. Sampling methods

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan
Sampling households	Two-stage stratified random sampling in 6 regions	Two-stage stratified random sampling urban/rural	Two-stage stratified random sampling urban/semi-urban/rural			
Sampling frame	Master sample Population census 2010	Master sample Population census 2002	Master sample 2012 based on Population census 2010			
Sampling individuals	Random selection of 1 member (Kish grid)	All members 12+	All members 12+			
Sampling days of the week/year		Two days: one weekday/one weekend day, assigned to the household in the sampling design	Past week in two parts: weekdays/weekend days		All households surveyed during the month should be distributed in such a way that all days of the week are proportionally represented	
Number of households	15,439	10, 502	28,238 + 1,798 indigenous		1,649	3,000
Number of individuals	14,350		71,404	32,301	4,521	13,150
Number of diaries			-			
Non response rate household	38%	31% (10% adjusted)	10.4%			
Non response rate individuals	7.1%	24%				
Non response rate diaries		-	-			

Table C 3.1: Review Time-Use Surveys for Women Count Phase 2. Weighting and imputation/adjustment procedures

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Weighting households	Inverse of probability sampling adjusted for non-response rate				Results are extended to all private households and to the entire population, using weighting factors calculated as inversely proportional to the selection probabilities. In addition, during distribution, the weight of the Diaries (days of the week) is adjusted in order to achieve a uniform distribution of information by days of the week when forming the results of the sample observation of the daily time use of the population.	The first step assigned the inverse of the selection probability, in the second step design weights were adjusted for non-response and the final step consisted of calibration of the secondary weights to the best latest available population totals for gender and 5-year age groups and estimated number of households at the regional level. Data are coherent with the data from the Household Budget Survey, the Labour Force Survey and Survey of Income and Living Conditions.
Weighting individuals	In the third stage, the diary weight was given for all diaries and it included non-response adjustment for missing diaries. These weights were calibrated for the 2010 population of the regions, urban and rural areas and age groups, so the weight is the same for all household members, since the calibration was used at the household level. Final weights were multiplied by 5/7 for weekdays and 2/7 for weekend days					
Weighting diaries						
Checking consistency with popula-tion structure and other characteristics of population		Yes, with calibration				

Table C 3.2: Review Time-Use Surveys for Women Count Phase 2. Weighting and imputation/adjustment procedures

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon

Weighting households	Sampling errors at 1-digit				Weights result from calculations involving several factors, including original selection probabilities, adjustment for non-response and benchmarking to known population estimates provided from the Demographic Division of Stats SA. The final survey weights were constructed by calibrating the non-response-adjusted design weights to the known population counts at the national level population estimates (which are supplied by the Demography division) cross-classified by 5-year age groups, gender and race and provincial population estimates by broad age groups. The 5-year age groups are: 0–4, 5–9, 10–14, etc. and 65 years and over. The provincial-level age groups are: 0–14, 15–34, 35–64 and 65 years and over. The calibrated weights are constructed such that all persons in a household would have the same final weight. The final diary adjusted weights were constructed by applying the diary adjustment factors to the final calibrated weights at the household level	
Weighting individuals						
Weighting diaries						
Checking consistency with popula-tion structure and other characteristics of population	Profile of respondents not compared with population structures from other sources	2013 ETUS sample weight was adjusted to suit the variation between the selected and responding sampling units as well as the 2007 census population projections for 2013				

Table C 3.3: Review Time-Use Surveys for Women Count Phase 2. Weighting and imputation/adjustment procedures

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan

Weighting households	Inverse of probability sampling. Adjustments for non-response of household, of selected individual Calculation of sampling errors by various methods; Recommendations for users: identification of the quality of information and recommendation for use	Inverse of probability sampling. Adjustments for non-response of household, of selected individual	Inverse of probability sampling. Adjustments for non-response of household, of selected individual, of questions in the questionnaire	-	-	
Weighting individuals				-	-	
Weighting diaries		-	-	-	-	
Checking consistency with popula-tion structure and other characteristics of population	Calibration by total population, by sex and age group	Adjustment with population in counties provided by population projections, by sex and age group	Adjustment by population projections in the domains of interest	-	-	

Table C 4.1: Review Time-Use Surveys for Women Count Phase 2. Questionnaires

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Type of questionnaire	Diary	Diary		Diary	Diary	Diary
Background characteristics Household		Household composition, childcare services, school attendance, income, help received			Household members roster, Children less than 15, living conditions and financial situation,	Place of living, household composition, family relations not only to the head of the household, but also to all other household members, housing and living conditions, total income and other characteristics of the responding household
Background characteristics Individual		Demographics, employment, main job, activity status, education, health			Employment, Education and use of ICTs, Health and physical activities	Education, health condition, marital status, activity and employment status, etc.
Diary	Two left-behind diaries for weekday and weekend day	Two left-behind diaries for weekday and weekend day		Left-behind diary	Left-behind diary	
Time slot	10 minutes fixed intervals	10 minutes fixed intervals		10 minutes fixed intervals	10 minutes fixed intervals	10 minutes fixed intervals
Contextual variables	With whom, location	Market orientation, use of ICTs, where/modes of transport, with whom			Where, with whom	
Simultaneous activities	Yes	Yes			Yes	
Supervisory care						
Additional module						

Table C 4.2: Review Time-Use Surveys for Women Count Phase 2. Questionnaires

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon
Type of questionnaire	Diary	Diary	Diary	Diary	Diary	Diary
Background characteristics Household	geographical characteristics, household composition, LFS classification of household members, head's and spouse's characteristics, dwelling characteristics and ownership of durables.	Overall household living conditions indicators such as type and source of energy for light and cooking, source of drinking water and time taken to fetch water, household expenditures, source of income, household durables / amenities, decision making status on economic assets of the household	Roster of all members with socio-demographic and cultural characteristics, health, activity and employment status, housing, household appliances, use of public and community services, unpaid help and services received by the household, income	Roster of all members with demographic characteristics. Identification of caregivers and care recipients among household members. Housing, access to water, cookstove, sanitation, equipment, agriculture, earnings	The questionnaire for the time use survey comprised five sections. Section 1 covered details of all household members. Sections 2–5 were administered to the two selected individuals in a household. Sections 2–5 were therefore duplicated to cater for the two selected individuals in a household. Section 2 covered demographic details of a person selected as a respondent in that household. Section 3 was on economic activities for the selected person. Section 4 covered main work activity for the selected person, if they were engaged in economic activities. Section 5 consisted of a diary in which to record the activities performed by the selected person during the 24 hours between 04h00 on the day preceding the survey interview and 04h00 on the day of the interview. The household and demographic sections of the questionnaire contained many of the standard questions of Stats SA household surveys. This was done to facilitate comparison across surveys. These sections also contained some additional questions on issues that would be likely to affect time use. For the household section, for example, there were questions on access to household assets such as washing machines and vacuum cleaners. In the demographic section for the selected individuals, there were questions about the presence of the respondent's young children in the household.	Background household characteristics from the parent survey
Background characteristics Individual	Demographics, education, current labor status, main job or last held job characteristics		Stylized questions on all activities performed in the 24-day, use of media, practice of sports, leisure and socio-cultural activities, participation to civic life, perception of time and time management, behavior and sharing of decisions in the household, characteristics of the reference day	Household members questionnaire collected information about Individual demographic and socio-economic characteristics such as age, sex, ethnicity, family status, education and ICT use, land ownership and tenure rights, employment status, employment status of spouse, health services, disability status, access to social protection, perception of unpaid work and of gender equality		Individual background characteristics from the parent survey
Diary	One diary per person	One diary per person	One diary per person	One diary per person	One diary per person	One diary per person

Time slot	10 minutes and 30 minutes from midnight to 4 am	1 hour with up to 5 activities (and duration)	Open intervals (start and end time)	1 hour with only one activity, duration	30 minute with up to 3 activities	1 hour (2014) and 30 minutes (2022) with up to 5 activities (and duration)
Contextual variables	Where, means of transport, for pay/unpaid, with whom	For whom, market orientation, where, mode of transport	Where, for whom	For whom, Where, means of transport, With whom, ICT use	Where, mode of transport	With whom, for whom, where and mode of transport
Simultaneous activities	Yes	Yes	Yes	Yes (secondary activity, which may not be simultaneous)	Yes	Yes
Supervisory care		Probing question	No	No	Special attention to capturing child care work to mitigate against it being underreported. Firstly, the part of the questionnaire that precedes the diary included questions that asked whether the respondent had any children under seven years of age and – if so – whether the children lived with them. The same two questions were also asked in respect of children under 18 years. Secondly, after the diary was completed, there was an extra question which interviewers used to prompt all respondents as to whether they did any child care which they had not mentioned. To keep a check on the success or otherwise of this approach, there were two slightly different codes for each of the child care activities. A '1' as the third digit indicated that the activity was named spontaneously. A '2' indicated that the activity was only mentioned after prompting	After the diary was completed, there were two extra questions which interviewers used to prompt all respondents as to whether they did any child care or adult care which they had not mentioned: Yes but not mentioned/Yes mentioned/No
Additional module						

Table C 4.3: Review Time-Use Surveys for Women Count Phase 2. Questionnaires

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan
Type of questionnaire	Diary	Stylised questions	Stylised questions	Diary	List of activities	
Background characteristics Household	Module similar to other national household surveys: housing, income, education, health coverage and for members: marital status, activity and employment status, members to be provided with care, 65+ to care, domestic workers	Socio-demographic characteristics of household members, presence of domestic workers, income	Housing, income, household appliances, domestic workers, Socio-demographic characteristics of household members, affiliation to social security			
Background characteristics Individual	Attached to diary (income)	Occupation and labour income, pensions and social security contributions	Labour, employment past week		Gender, marital status, educational attainment, activity/employment status, included in the questionnaire	
Diary/stylised questionnaire	One diary + stylised questions on childcare, adult care, disabled care	List of activities in 9 thematic modules (102 questions): work (3), care (disabled, 0-4, 5-14, 15-65, 66+) (46), domestic (22), help to other households (5), community activities (3), personal care (8), education (4), leisure and social life (7), use of media (4)	List of activities in 18 thematic modules (101 questions): work (3), production of goods for own final use (9), care (disabled, 0-4, 0-14, 15-59, 60+) (27), domestic (32), help to other households (6), community activities (2), personal care (3), education (3), leisure and social life (8), use of media (5)	2 left-behind diaries per person; assistance of interviewers for special groups: children, elderly, disabled	List of activities/no diary	2 left-behind diaries per person;
Time slot	10 minutes fixed intervals with up to 3 activities	Number of hours and minutes per day	Number of hours and minutes per week (weekdays/weekend days)	10 minutes fixed intervals	Number of hours and minutes per day	10 minutes fixed intervals
Contextual variables	With whom, where, what purpose (but not clear whether these contextual information are coded given they can only be mentioned in observations	Satisfaction with time-use	Satisfaction with time-use	With whom, location, mode of transport	No	With whom, location, mode of transport

Simultaneous activities	Yes (up to 3)	No	No	No	No	Yes
Supervisory care	By capturing up to 3 activities by 10-minute time slot, the TUS diary obtained relatively high figures in simultaneous activities and especially care activities. Combined with stylized section on household members requiring care, the survey captured supervisory care relatively well	No	No	No	No	
Additional module						

Table C 5.1: Review Time-Use Surveys for Women Count Phase 2. Indicators produced (by sex)

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Average time by detailed activities	1- and 2-digit by weekdays/weekend days **and** age group (4), location, activity status (15+), with partner and youngest child <6, with partner and youngest child 7 to <17, with partner and no child under 17, without partner and no child (15+), employed/not employed with children (15-64), life cycle (8 categories) (10+), educational level (15+), region		1-digit (7 activities) 2-digit for unpaid domestic and care work, 2-digit for free time, by location, by weekday/weekend day. Domestic and care work (at 2-digit) with children under 10. Free time (2-digit) for 10-15 years old, for employed, for elderly	No	1-digit (13 activities) by urban/rural location/population size of settlement and weekdays and weekend days, by presence of children and weekdays and weekend days, activity status (working/not working/pensioner) By oblast	1- and 2-digit (and 3-digit for childcare, leisure, travel) by location, life cycles, age group (5), employed/ unemployed /inactive under 45/over 45, employed and life cycle
Average time by detailed unpaid work activities, SNA/non SNA				No		
Participation rates by detailed activities	1- and 2-digit by weekdays/weekend days **and** age group (4), location, activity status (15+), with partner and youngest child <6, with partner and youngest child 7 to <17, with partner and no child under 17, without partner and no child (15+), employed/not employed with children (15-64), life cycle (8 categories) (10+), educational level (15+), region		No	3-digit only by sex (all other background characteristics not disaggregated by sex)		No
Time for participants by detailed activities			No	3-digit only by sex (all other background characteristics not disaggregated by sex)		1- and 2-digit (and 3-digit for childcare, leisure, travel) by location, life cycles, age group (5)
Proportion by detailed activities	1-digit by weekdays/weekend days and age group (3), location, with		1-digit (7 activities) 2-digit for unpaid	No	1-digit (13 activities) by urban/rural	1-digit, by employed/unemplo

	partner and youngest child <6, with partner and youngest child 7 to <17, with partner and no child under 17, without partner and no child (15+), activity status		domestic and care work, 2-digit for free time, by location, by weekday/weekend day		location/population size of settlement and weekdays and weekend days, by presence of children and weekdays and weekend days, activity status (working/not working/pensioner) By State	yed/inactive, students 2-digit for domestic and care activities, free time
Summary table average time, participation rates, time participants	No		No	No	No	No
Simultaneous activities	No		No	No		No
Weekdays/ weekends days	Yes, all tables		Yes	No	Yes	Traveling, sleeping by weekdays
Supervisory care	Yes, main/secondary activity/free-meals-unpaid work with children up to 9 present, with partner and children under 7/ between 7 and 16		No	No		No
Specific population groups	20-74				Pensioners	20-64, 20-74, students, students 15+ by educational level, employed/ unemployed/ inactive 20-64
Special cross-tabulations	Number of hours of total work (paid and unpaid) by number of hours in paid work					
Timing and Episodes	Yes, daily rhythm 20-74, weekdays/weekend days and comparison with Sweden, Fragmentation: free time episodes by duration and weekdays/ weekend days, activities following free time periods		Yes, proportion of population participating in aggregate activities (8) by hour of the day but not by sex	Graphs in annex		Daily rhythm weekday, weekend day

Contextual variables	Yes, “With whom” by single person household/ child <6, with partner/ youngest child 7 to <17/other, for meals-coffee/free time (travel excluded)/watching TV, “Where” for meals-coffee, socializing, free time (travel excluded)		No	Not disaggregated by sex except in analytical notes		Location, mode of transport
Other tabulation (not cross-cutting time)						
Global estimates	No		No	No	No	No

Table C 5.2: Review Time-Use Surveys for Women Count Phase 2. Indicators produced (by sex)

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon
Average time by detailed activities		1- and 2-digit, by location, age group (4), marital status, household composition, educational attainment, employment status, household monthly expenditure, days of the week	1 digit (5 aggregates), 2-digit (8 activities), 2-digit (all activities), by location, household size, age group (4), marital status, educational level, activity status, occupational status, socio-professional status, weekdays/weekend days (Friday, Saturday, Sunday), Ramadan/not Ramadan		1-digit by location, age group (3), educational attainment, marital status, province, activity status, household expenditure, presence of children under 7/under 18, days of the week	1-digit and 2-digit for SNA activities by age group (3), marital status, educational level, location, employed
Average time by detailed unpaid work activities, SNA/non SNA	At 1-digit		1-, 2- digit			
Participation rates by detailed activities	At 3-digit	1- and 2-digit, by location, age group (4), marital status, household composition, educational attainment, employment status, household monthly expenditure, days of the week/ aggregate level by region	No		Participation rates at 1-digit Number of participants at 3-digit	Not disaggregated by sex
Time for participants by detailed activities	At 3-digit	1- and 2-digit, by location, age group (4), marital status, household composition, educational attainment, employment status, household monthly expenditure, days of the week/ aggregate level by region	No		At 3-digit	Not disaggregated by sex
Proportion by detailed activities		No	No		No	1-digit
Summary table average time, participation	At 1-digit by location, age group, educational level, activity status,	No	No		No	Not disaggregated by sex

rates, time participants	occupational status, marital status,					
Simultaneous activities		1-digit with and without simultaneous	No		Distribution by 1-digit,	1-digit 2-digit for personal care
Weekdays/ weekends days	At 1-digit	1- and 2-digit	Yes at 1-, 2-digit		Yes at 1-digit	Not disaggregated by sex
Supervisory care		No	No		Yes	
Specific population groups						Youth,(10-24), Adults (25-59), Elderly (60+)
Special cross-tabulations	Travel by purpose				By presence of household appliances, by source of fuel and water; Travel by 1-digit activity	
Timing and Episodes		No	No			Timing by hour of the day, but not by sex
Contextual variables	Location, with whom	No	No		Location, Travel by mode of transport,	With whom 1-digit
Other tabulation (not cross-cutting time)					Most common combination of 2 and 3 simultaneous activities, of child care and other activities	
Global estimates	A chapter of the report dedicated to valuation	No				A chapter of the report dedicated to valuation

Table C 5.3: Review Time-Use Surveys for Women Count Phase 2. Indicators produced (by sex)

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan
Average time by detailed activities			In Mexico ENUT, results are presented in total annual number of hours for each activity, with total number of participant population, therefore total time replaces average time and average time is obtained by dividing total time by total population, participant or not): 2-digit per size of settlement, age group (6), indigenous/not indigenous.	1 and 2-digit, by background characteristics: location, age group (7), employment status, educational level, working and weekend day, by presence or absence of children 15+, by region	1-digit and for detailed housekeeping services, detailed free time, detailed personal care by background characteristics: age groups (7), activity status, with and without children under 16, household size, by region	1-, 2- and 3-digit by weekday/weekend day (all population), employment status for population 15+, age group (7), educational level, with/without children and for 10-14, 10-17. Same by region
Average time by detailed unpaid work activities, SNA/non SNA			Total time 2-digit			
Participation rates by detailed activities	At 1-digit, by age group (3), educational level, activity status, with or without dependent (children and/or adults), household educational level, region. All tables include simultaneous activities (only one table distinguishing with and without simultaneous)	At 1-digit for goods for own final use, domestic, care, volunteering and travel related, by weekdays/weekend days, by region, by age group (4), by activity status, by income group. Same for free time (socializing, hobbies, sports, participation to events)), but not by weekday/weekend day	2-digit	No	No	No
Time for participants by detailed activities	At 1-digit, by age group (3), educational level, activity status, with or without dependent (children and/or adults), household educational level, region. All tables include simultaneous activities (only one table distinguishing with and without simultaneous)	At 1-digit for for goods for own final use, domestic, care, volunteering and travel related, by weekdays/weekend days, by region, by age group (4), by activity status, by income group. Same for free time (socializing, hobbies, sports, participation to events), but not by weekday/weekend day	Complementary tables (same as for totals) on weekly average for participants at 2-digit level for productive activities and for social life and leisure. Official report based on participation rates and weekly time for participants	No	No	No

Proportion by detailed activities		No	Per sub-activities at aggregate activities level (Productive-SNA general production boundary; care; volunteering; personal and education; leisure and social life; specific rural activities-indigenous). Not for the 24-hour day	1- and 2-digit by same background characteristics	1-digit and for detailed housekeeping services, detailed free time, detailed personal care by background characteristics: age groups (7), activity status, with and without children under 16, by region	1-, 2- and 3-digit by weekday/weekend day (all population), employment status for population 15+, age group (7), educational level, with/without children and for 10-14, 10-17. Same by region
Summary table average time, participation rates, time participants	No	No	No	No	No	No
Simultaneous activities	At 1-digit. All other tables include simultaneous activities	No	Only for care: While you were doing something else, did you look after children or keep an eye on them?	No	No	No
Weekdays/ weekends days	No	1-digit	No	1- and 2-digit and by employment status	1-digit and for detailed housekeeping services, detailed free time, detailed personal care	1-, 2-, 3-digit by employment status, age group, region
Supervisory care	To the extent that simultaneous activities are taken into account	No	Yes. While you were doing something else, did you look after them or keep an eye on them? Multiplied by 2.3 (women) and 2.4 (men)	No	No	No
Specific population groups			Indigenous populations	10-14	Youth 14-28, Students	Youth 10-14 and 10-17
Special cross-tabulations					Working members by time spent on travel to work and eating at work (not by sex)	
Timing and Episodes	No	No	No	No	No	No
Contextual variables	No	No	No	No	No	No
Other tabulation (not cross-cutting time)	Proportion of households with adult care needs (external or not), with domestic workers, with one member at least engaged in volunteering activities/per region	Satisfaction with free time				
Global estimates	No	No	No	No	No	No

Table C 6.1: Review Time-Use Surveys for Women Count Phase 2. Dissemination of output and outcomes

	Albania	Armenia	Belarus	Moldova	Russia	North Macedonia
Publication	2011	To come	2016	2013		2015
Tabulations	Annex of the report and make your own tables on NSO's website		Tables in annex report		On-line	Tables in the report xls tables to download
Metadata	Annex of the report				On-line	Section of the report
Microdata	No				Yes	Yes
Other dissemination products				Press release Thematic notes prepared by independent think tank expert group on child care, unpaid work, volunteering, schooling, social life and entertainment, reading, disabled, health and lifestyle		
Access to report on NSO's website	Access on INSTAT website by thematic window "social conditions-time use survey"		Access on BELSTAT website through window "Official statistics-Demographic and social statistics"		Access on ROSSTAT website through "statistics - Censuses and surveys - System of observations on social and demographic problems - Sample observation of daily time-use	Access on MAKSTAT website through window "publications-time use survey"
Global estimates	No		No		No	No
Satellite account	No	Planned	No		No	No
Care economy assessment	In 2023		No		No	No
Policy-oriented measures						

Table C 6.2: Review Time-Use Surveys for Women Count Phase 2. Dissemination of output and outcomes

	Egypt	Ethiopia	Morocco	Nigeria	South Africa	Cameroon
Publication	2016/2023	2014	2014	Planned 2025	2013	2017/2025
Tabulations		In the report	Yes		In the report	In the report
Metadata	Chapter of report	Chapter of the report	Special reports on methodology and metadata		Chapter of the report	Chapter of the report
Microdata	Yes through ERF portal		Yes, SAV, CSV			Yes upon demand
Other dissemination products			Press release, Web infographics positioning the visitor's time use according to his/her socio-demographic characteristics			
Access to report on NSO's website	On ERF website	Through window « survey reports-social"	Through window "population and demographic surveys"		Through Google	INS website Through search window
Global estimates	In the report	No	Yes		No	Yes
Satellite account		No	Yes	Planned	No	No
Care economy assessment		No	No		No	No
Policy-oriented measures		No				

Table C 6.3: Review Time-Use Surveys for Women Count Phase 2. Dissemination of output and outcomes

	Argentina	Chile	Mexico	Kazakhstan	Kyrgyzstan	Tajikistan
Publication	2022	2016-2017	2020 PPT	2018	2021	2024
Tabulations	In the report and detailed on-line	xls tables on-line limited to various forms of unpaid work	xls tables on-line: Basic, complementary, by state, with standard errors, min, max, sample size; open data	In the report and on-line	In the report	In the report
Metadata	Annex of the report and special report on sampling, weighting, sampling errors and recommendations for interpreting estimates	Methodological report, questionnaires, glossary, metadata standard DDI	Technical note, Methodology, conceptual design, sample design, operational and processing report, questionnaire, glossary, metadata standard DDI	Very short methodology (1 page)	Very short methodology (Less than 1 page)	Annexes of the report
Microdata	Yes, with complete methodological tools for user	Yes, CSV, SPSS, STATA, with manual for user	Yes, with complete methodological tools for user			
Other dissemination products	Yes on free time	Yes on free time	Academic institutions and women's organizations advocating for the right to care play a crucial role in transforming statistical data into knowledge products used for legislative advocacy and public communication			
Access to report on NSO's website	INDEC website through "publicaciones-resultados estadisticos"	INE website through "estadisticas-sociales-genero"	INEGI website through "Programas de Informacion-subsistema de Informacion Demografica y Social-Encuestas – Regulares - ENUT	Through the window "living conditions"	Through the window "Publications -social sector"	Through the window "For users - publications- survey results"
Global estimates	No	No	Yes on annual basis	No	No	No
Satellite account	No	No	Yes on annual basis. "Programas de Informacion-subsistema de Informacion Economica-Sistema de Cuentas Nacionales-Cuentas satelite-Trabajo No Remunerado de los Hogares	No	No	No
Care economy assessment	No	No	No	No	No	No
Policy-oriented measures				No	No	

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ANNEX D: COMPARISONS OF LIGHT AND FULL DIARIES IN JAPAN (1976-2021) AND IN BULGARIA (2019)

1) Comparisons of time series of light and full diaries results from Japan's time-use survey 1976-2021

Since 1976, Japan conducts a time-use survey every 5-year to assess the quality of life and the status of unpaid work and volunteer activities, with a light diary of 20 pre-coding activities, capturing the use of smartphone or PC and the 'with whom' contextual question (but not the simultaneous activities).

The reference day is one day of October, with two consecutive days surveyed – selected beforehand - within the nine-day period around the reference day. The sample size was 99,000 households corresponding to about 270,000 individuals aged 10+ (all members of selected households have to fill two-diaries).

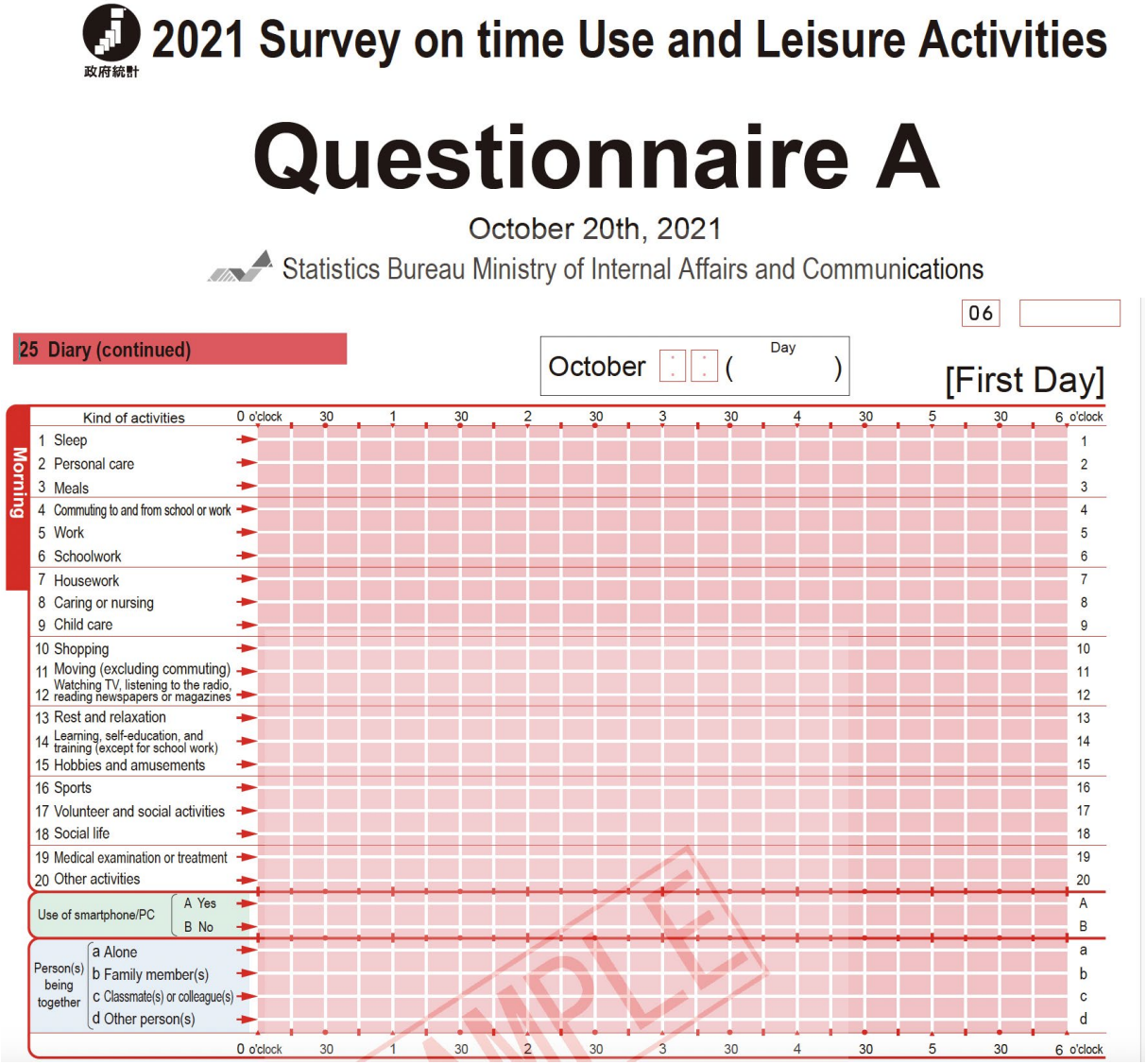
From 2001, the Japanese TUS added an after-coding open diary called Questionnaire B (referred to below as the full diary), which collects time spent on activities with a 15-minute time slot, on two consecutive days for all household members aged 10+. Simultaneous activities are collected as well as use of smartphone or PC and the contextual questions: where and with whom.

In 2021, Questionnaire B was administered to a sub-sample of households (4,000), whereas the light diary (questionnaire A) is administered to a large sample of households (73,000). In total, 77,000 households or 200,000 individuals are surveyed (88,000 households in 2016; 83,000 in 2011).

Both questionnaires are preceded by the same set of individual questions (socio-demographic characteristics, health status – chronic illnesses, degree of limitations in activities, whether they are care recipients of care givers in the household – employment status, working time arrangements if they are employees, income, usual and wished hours of work, types of learning activities, types of volunteer activities, types of sports, hobbies and amusements, types of travel and excursion and type of days of the week corresponding to the diary-days) and followed by another set of questions to be filled by the household head only (annual income of the household, absentees, children aged less than 10, whether they attend school or kindergarten and whether any non-household member is taking care of them).

Table D1.1 presents the light diary of questionnaire A. The selected respondents have to fill the diary for two designated days.

Table D 1: The light diary (Questionnaire A) of the Japanese time-use survey



2021 Survey on time Use and Leisure Activities

政府統計

Questionnaire A

October 20th, 2021

Statistics Bureau Ministry of Internal Affairs and Communications

06

25 Diary (continued)

October (Day)

[First Day]

Morning

Kind of activities	0 o'clock	30	1	30	2	30	3	30	4	30	5	30	6 o'clock
1 Sleep													1
2 Personal care													2
3 Meals													3
4 Commuting to and from school or work													4
5 Work													5
6 Schoolwork													6
7 Housework													7
8 Caring or nursing													8
9 Child care													9
10 Shopping													10
11 Moving (excluding commuting)													11
12 Watching TV, listening to the radio, reading newspapers or magazines													12
13 Rest and relaxation													13
14 Learning, self-education, and training (except for school work)													14
15 Hobbies and amusements													15
16 Sports													16
17 Volunteer and social activities													17
18 Social life													18
19 Medical examination or treatment													19
20 Other activities													20
Use of smartphone/PC: A Yes													A
Use of smartphone/PC: B No													B
Person(s) being together: a Alone													a
Person(s) being together: b Family member(s)													b
Person(s) being together: c Classmate(s) or colleague(s)													c
Person(s) being together: d Other person(s)													d
	0 o'clock	30	1	30	2	30	3	30	4	30	5	30	6 o'clock

The Statistics Bureau publishes the results in 7 volumes:

Volume 1
Time Use for Japan (1) - Daily Time Allocation by Sex, Age and Economic Activities -
Time Use for Japan (2) - Daily Time Allocation by Family Type of Households -

Volume 2
Leisure Activities for Japan

Volume 3
Time Use for Prefectures

Volume 4
Leisure Activities for Prefectures (1) - Internet Use / Studies and Researches -

Leisure Activities for Prefectures (2) - Sports / Hobbies and Amusements -
Leisure Activities for Prefectures (3) - Volunteer Activities / Travel and Excursions

Volume 5
Activities by Time of the Day for Japan and Prefectures - Daily Time Allocation by Time of the Day -

Volume 6
Summary Results and Analyses

Questionnaire B

Volume 7
Time Use for Japan by Detailed Activity Coding

Detailed results are available in xls files on e-Stat which is the "Portal Site of Official Statistics of Japan" (external site) where can be browsed statistics tables and database in the theme: “Education, Culture, Sports and Life”.

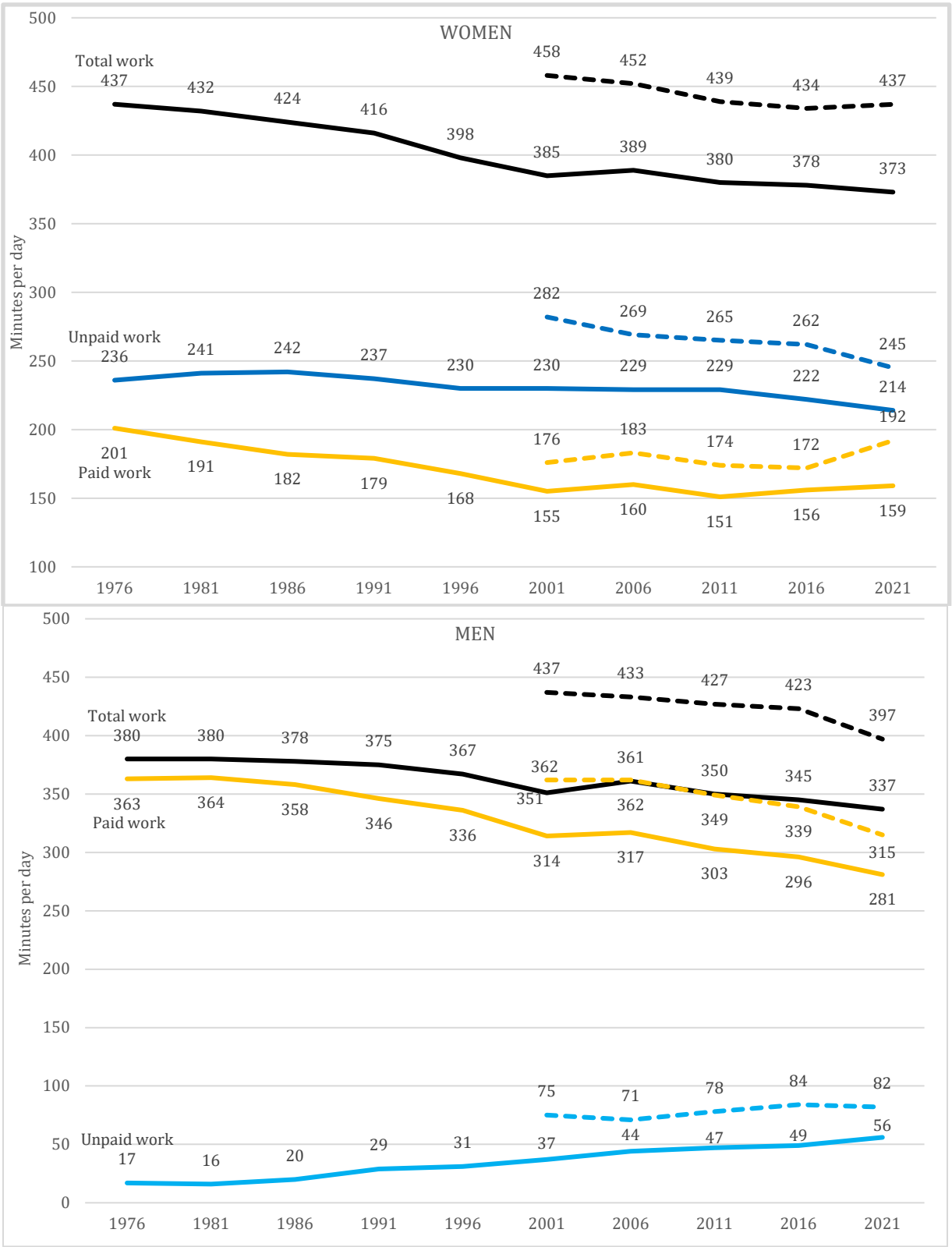
Keeping in mind that the light and full diaries were not filled by the same households, but on a large sample for the light diary and a smaller sample for the full diary, we present below the comparative trends by gender for work (unpaid and paid) and for free time (leisure and personal care), for the period 1976-2021 (2001-2021 for the full diary).

For women (Figure D1.1 top), unpaid, paid and total work are on an overall declining trend, with a slight upward bending in the last period (2018-2021) for paid work. The most striking observation is that the results obtained through the full diary are systematically higher than those obtained with the light diary, with a gap noticeably wider (from 31 minutes per day to 52 minutes) in unpaid work than in paid work (from 16 to 33 minutes). For total work, the gap ranges from 56 to 73 minutes.

For men (Figure D1.1 bottom), while unpaid work follows a slow ascending trend, paid work and total work are on a declining trend. Again, the full diary ends with higher values than the light diary, but at the opposite to women, the gap between the two estimates is wider for paid work (from 34 to 48 minutes per day) than for unpaid work (from 26 to 38 minutes).

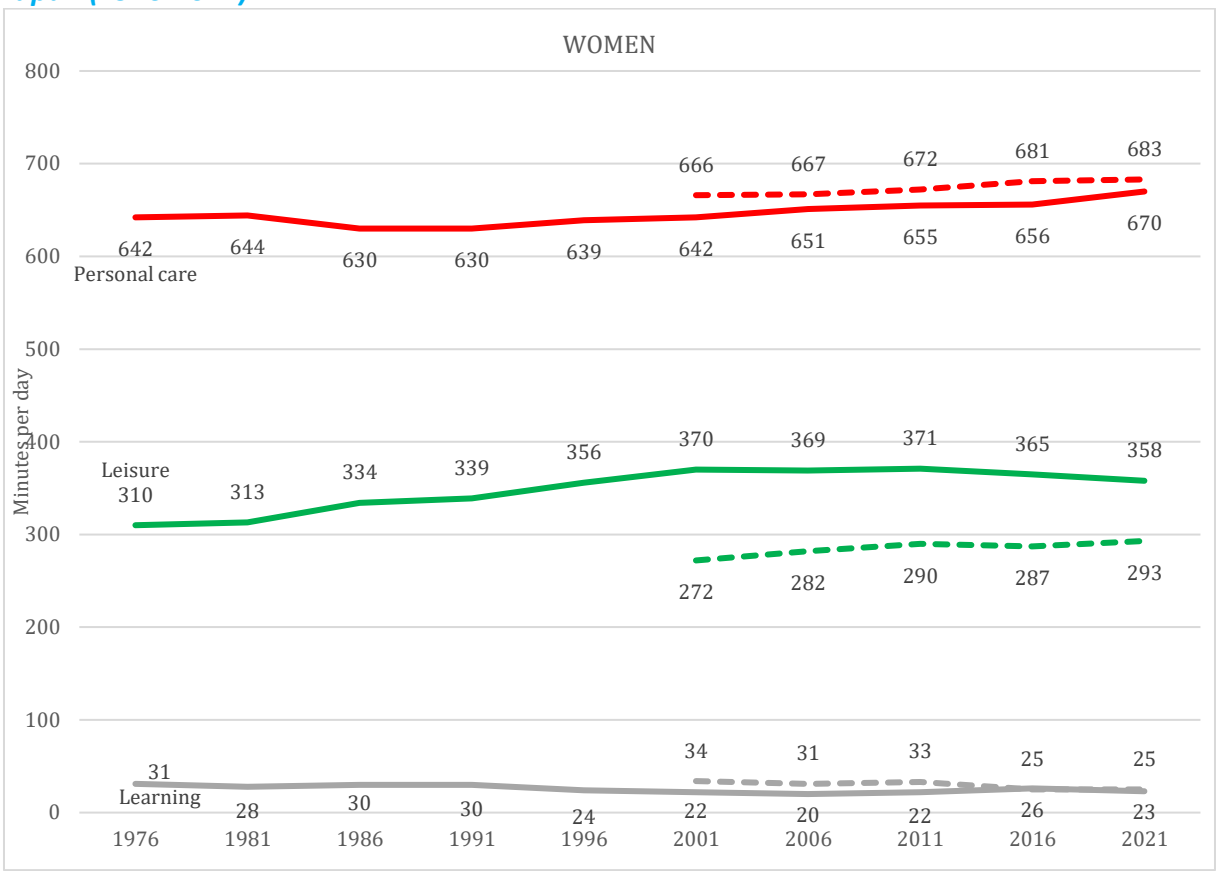
If we look now at personal care, leisure and learning activities (the complement to work for reaching the 24 hours of a day), we see (Figures D 1.2) that for both women (top) and men (bottom), the gap between the full and light diary approaches is very thin and positive regarding personal care and learning and more important and negative regarding leisure. In other words, the light diary approach also underestimates time spent in personal care and in learning as compared with the full diary approach. Compensation occurs in leisure, meaning that in the light diary approach unpaid and paid work activities (and in a lesser proportion personal care activities and learning) are captured as leisure activities in a non-negligible proportion.

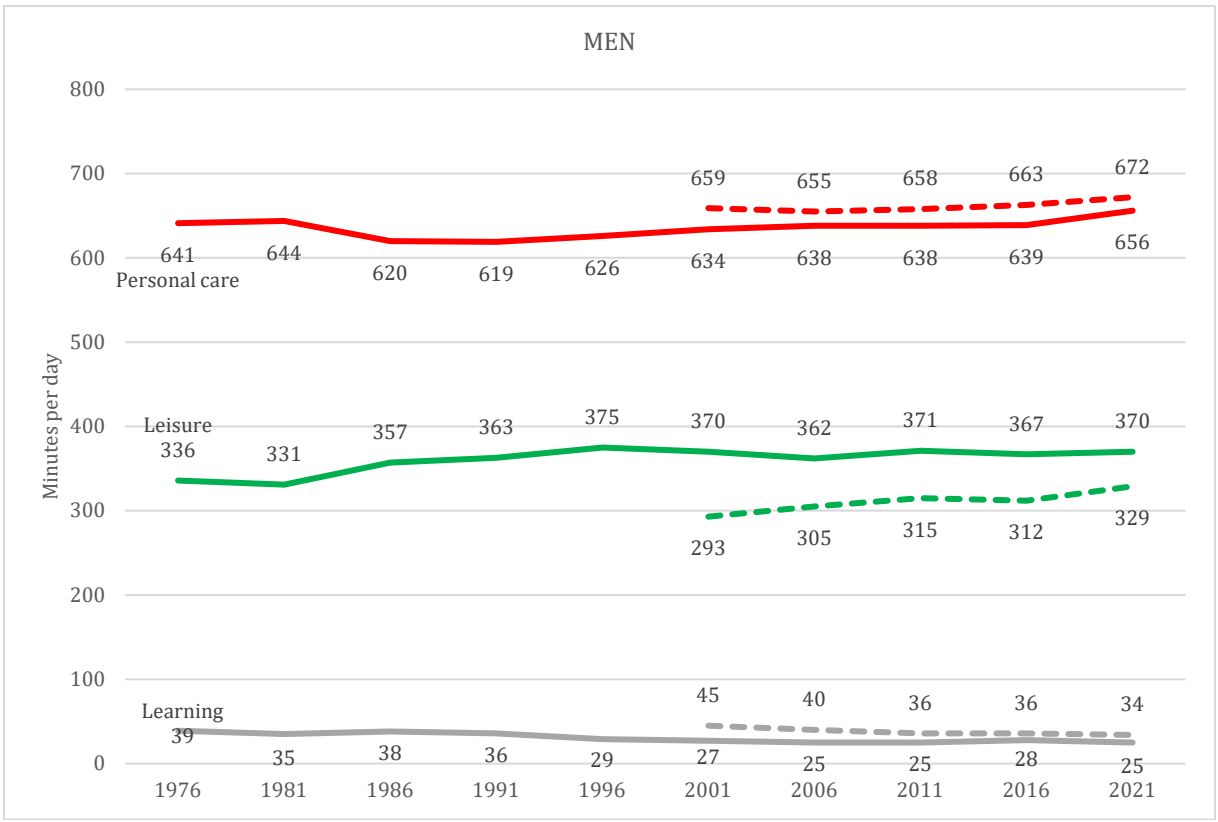
Figure D 1.1: Women's and men's time spent on unpaid work, paid work and total work in Japan (1976-2021)



Note: Vertical axis truncated at 100 for women.

Figure D 1.2: Women's and men's time spent on personal care, leisure and learning in Japan (1976-2021)





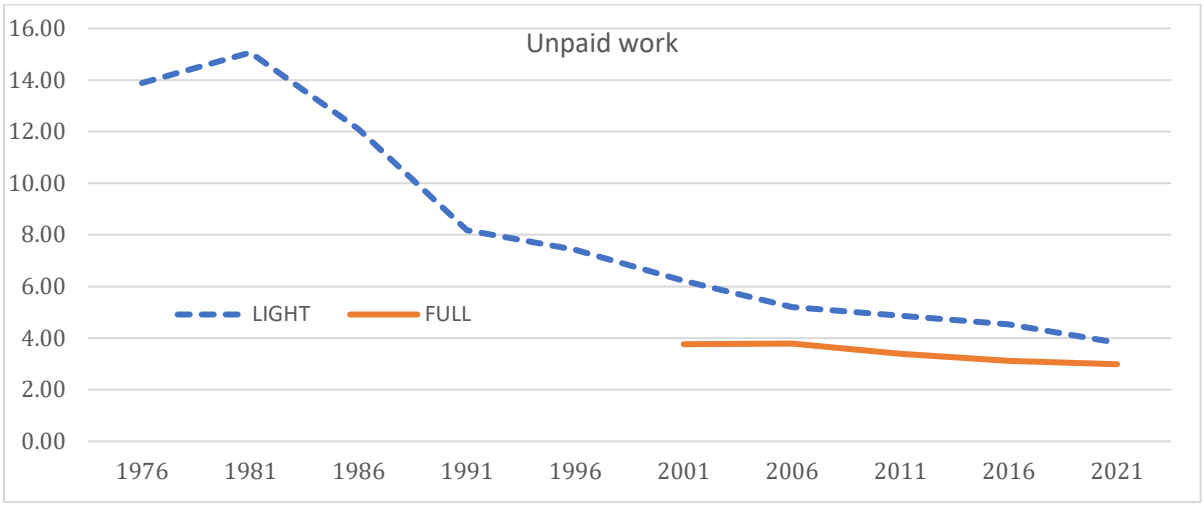
An interpretation of these differences between the full and the light diary approach is that the latter captures unpaid and paid work activities less well than the former and that some of these activities may have been considered as leisure activities, for instance playing with children, shopping or do-it-yourself activities, or also gardening. It is more difficult to understand what types of paid work activities can have shifted to leisure activities: homework such as reading reports or using smartphones, tablets or computers or more probably production of goods for own final use? In the case of Japan, it is important to note that commuting to and from work and school have not been imputed to their related activities, because of the impossibility of distinguishing between work and learning (commuting has therefore been imputed to leisure with other travels.

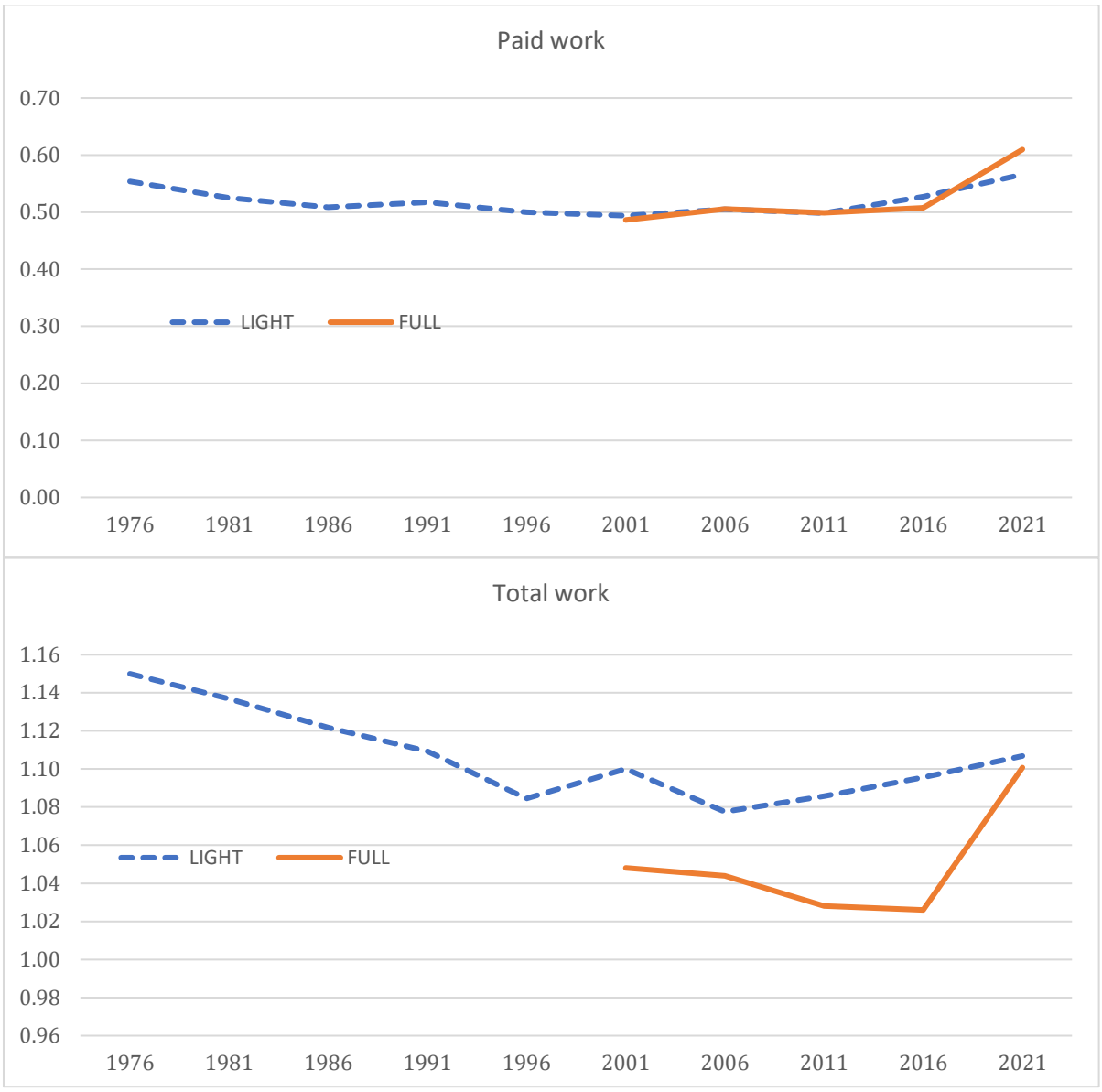
The light diary is pre-coded (closed-ended questions), which means that it is the respondent who chooses the category of the classification, whereas in the post-coding full diary approach, the final code is attributed by the interviewer or the computer if the imputation is automated. The longer the list of activities in the light diary, the lesser should be the overlap between the categories of the classification.

As a consequence, international comparisons should take this important characteristic of a time-use survey into consideration for appreciating the relative levels of unpaid, paid and total work across countries and we will address this issue in the section dedicated to assessing the quality of TUS.

Figures D 1.3 displays the comparisons between both full and light approaches as regards the gender gap (women to men ratio) in unpaid, paid and total work. The light diary approach seems to overstate the gender gap in unpaid work (top Figure D 1.3), while it has no or minimal impact on the gender gap in paid work (middle Figure D 1.3). As a result (Figure D 1.3 bottom), the gender gap in total work is overstated by the light diary approach, but it can be noted that in 2021, the gender gaps in unpaid and paid work offset each other so that the gender gap in total work is nil.

Figure D 1.3: Gender gap in unpaid work, paid work and total work in Japan (1976-2021)




Paid work
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
LIGHT
FULL
1976
1981
1986
1991
1996
2001
2006
2011
2016
2021
Total work
1.16
1.14
1.12
1.10
1.08
1.06
1.04
1.02
1.00
0.98
0.96
LIGHT
FULL
1976
1981
1986
1991
1996
2001
2006
2011
2016
2021

2) Comparison of light and full diaries results from a methodological survey in Bulgaria (2019)

Between 2016 and 2020 and before launching the third round of HETUS, preparatory works were funded by Eurostat in several European and near countries through a project on "innovative tools and sources for Household Budget Surveys and Time Use surveys" on new dimensions and new modes of data collection: survey interview techniques, new methods for data entry, coding, questionnaire processing. Various aspects were tested, such as the measurement of well-being and parallel activities/multitasking, the personal cognitive interview and focus group interview, the web-based diary and the use of mobile apps, the light and full diary, the integration of existing data collection and data from innovative source, the design and quality of diaries applied to children (8-10, 11-15) and the adaptation of classifications. The reports are available at: (https://ec.europa.eu/eurostat/web/time-use-surveys/information-data/projects#expand-be-16669402).

Bulgaria, a country with a long experience of TUS data collection (to-date, 5 national surveys since 1970) carried out a methodological pilot survey to test the light diary in comparison with full diary. Two samples drawn in 5 districts of 112 households and 113 households were respectively interviewed with a light diary of 22 prelisted time-use activities and with a full diary using a 10-minute time slot. Each household member aged 10+ was administered a weekday and a weekend day diary: in total, 226 persons filled the light diary and 204 the full diary. The survey was conducted on 5 weeks, in October-November 2018.

Table D 2.1 displays the results for the average time spent per person interviewed, by sex and detailed time-use activities (for the 22 prelisted activities) and Table D 2.2 presents the results for main (aggregate) activities. Table D 2.3 and Figure D 2.1 compare the findings for Japan (2021) and Bulgaria (2018), by sex and type of diary and by main activities.

The statistical hypothesis tested for checking whether the statistical difference between light and full diary is significant. The calculated Z values range from 0.07 (for eating) up to 8.14 for resting-time out. The critical test value was set at 1.96 (with a = 0.05).

Six time-use activities stand above this critical value (sleep, housework, resting, walking-hiking-sports…, communication via computer and searching-reading on Internet) and one stands just below (main and second job, with a coefficient of 1.8).

The difference observed in 'sleep' (Z value of 5.58) can be explained by an inverted difference in 'resting' (Z value of 8.14, the maximum).

'Cooking, washing, cleaning, laundry, ironing, sewing and knitting' – as a single activity, is characterized by the highest Z value (4.64), after resting and sleeping.

Table D 2. 1: Gaps between light and full diaries in Bulgaria methodological time use survey October-November 2018, by detailed activities

In minutes per day and per person	Women		Men		Gap light/full	
	Light	Full	Light	Full	Women	Men
Sleep	534	591	509	567	-57	-58

Eating	111	112	115	115	-1	0
Personal care - washing, dressing, make up	51	50	50	50	1	0
PERSONAL CARE	**696**	**753**	**674**	**732**	**-57**	**-58**
MAIN AND SECOND JOB	**147**	**123**	**256**	**187**	**24**	**69**
Classes, lectures, courses	*31*	*7*	*18*	*23*	*24*	*-5*
Cooking, washing, cleaning, laundry, ironing, sewing, knitting	136	199	18	69	-63	-51
Gardening and pet care	40	28	44	41	12	3
Construction, repairs	5	0	26	12	5	14
Shopping, services	24	26	19	23	-2	-4
Unpaid domestic services	**205**	**253**	**107**	**145**	**-48**	**-38**
Physical care for a child – bathing, dressing, feeding	11	10	3	5	1	-2
Teaching, reading, playing, accompanying a child	8	12	5	7	-4	-2
Caring od an adult (family member, acquaintance)	2	2	2	5	0	-3
Unpaid care services	**21**	**24**	**10**	**17**	**-3**	**-7**
UNPAID DOMESTIC AND CARE SERVICES	**226**	**277**	**117**	**162**	**-51**	**-45**
TOTAL WORK	**373**	**400**	**373**	**349**	**-27**	**24**
Conversations, visiting, cinema, theatre, concert, exhibition	37	37	33	46	0	-13
Resting-time out (relax, smoking, thinking, beach)	39	8	41	7	31	34
Walking, hiking, sports, fitness, hunting, fishing, herbs	31	18	44	28	13	16
Arts, drawing, singing, hobbies, card games, craps	3	3	8	9	0	-1
Computer and video games	3	1	7	7	2	0
Communication via computer	10	2	13	4	8	9
Searching, reading on Internet	13	5	19	15	8	4
Reading books, magazines, newspapers	14	9	9	6	5	3
TV, video and listening to the radio	162	164	154	165	-2	-11
SOCIALIZING, LEISURE	**312**	**247**	**328**	**287**	**65**	**41**
Travel (walking or by vehicle)	29	34	46	53	-5	-7
TOTAL (without learning and travel)	1381	1400	1375	1368	-19	7

Source: Based on NSI 2019), (Table 5).

Table D 2. 2: Gaps between light and full diaries in Bulgaria methodological time use survey October-November 2018, by main activities

In minutes per day and per person	Women		Men		Gap light/full	
	Light	Full	Light	Full	Women	Men
PERSONAL CARE	696	753	674	732	-57	-58
MAIN AND SECOND JOB	147	123	256	187	24	69
Unpaid domestic services	205	253	107	145	-48	-38
Unpaid care services	21	24	10	17	-3	-7
UNPAID DOMESTIC AND CARE SERVICES	226	277	117	162	-51	-45
TOTAL WORK	373	400	373	349	-27	24
SOCIALIZING, LEISURE	312	247	328	287	65	41
TOTAL (without learning and travel)	1381	1400	1375	1368	-19	7

As a result, for Bulgaria, a clear negative difference appears in unpaid domestic activities, reflecting on total unpaid work for both women and men. On the contrary, a positive difference is observed for paid work, with a higher intensity among men.

In conclusion, the Bulgarian pilot time-use survey identifies several lessons learnt:

- Respondents find more difficulties in completing the light diary and they find it easier to give a short description of the activities they have performed than to select a predefined category.
- However, younger people fill the light diary easier.
- Information on parallel activities and location are more difficult to collect with the light diary.

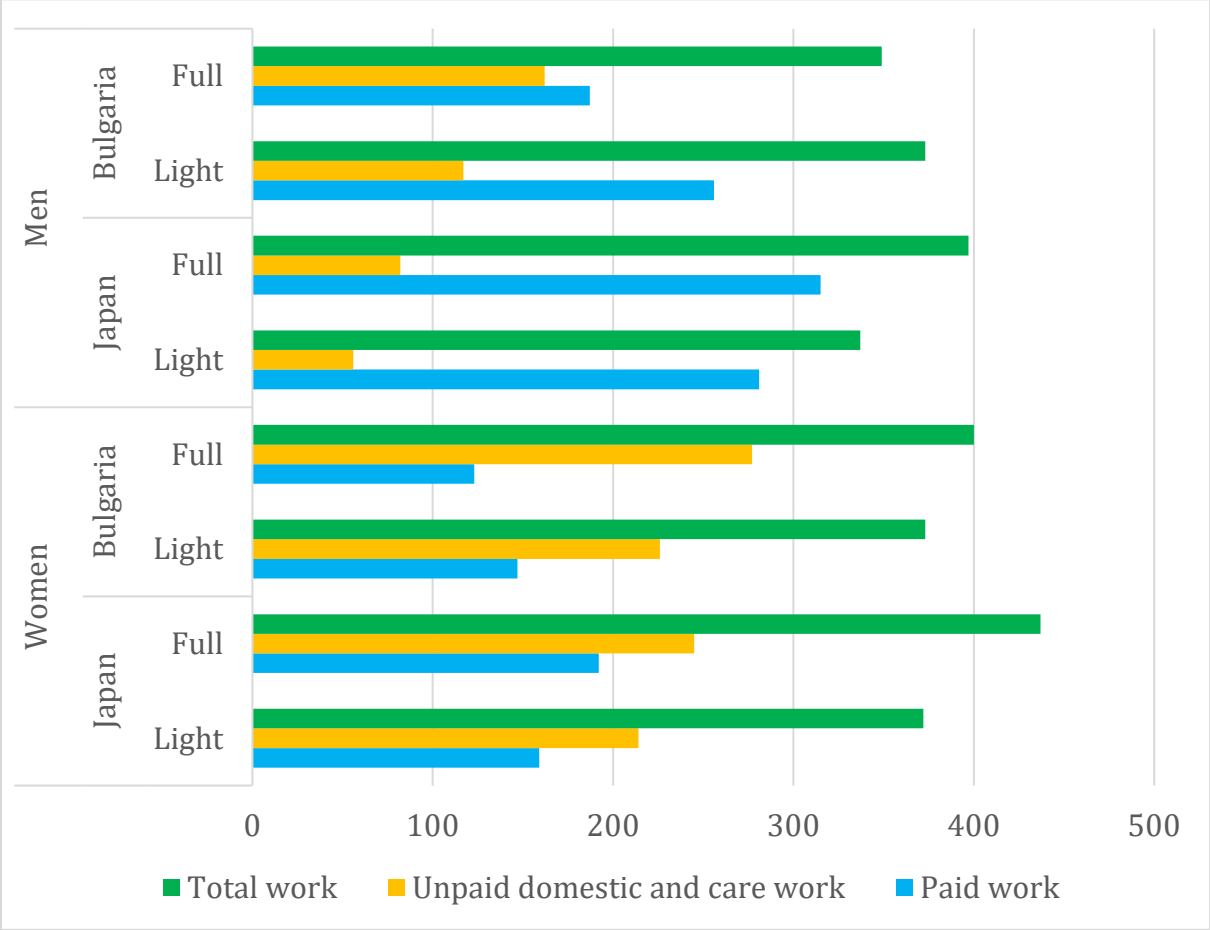
Still, these conclusions should be moderated by the fact that, in the case of Bulgaria, the diaries are self-completed by respondents themselves. In the context of developing and emerging countries where the diaries are filled by interviewers well trained to tackle the prelist of activities, most of the identified difficulties could be overcome.

Table D 2. 3: Comparison of light and full diaries in Japan (2021) and in Bulgaria (2018)

In minutes per day and per person	Women						Men					
	Japan			Bulgaria			Japan			Bulgaria		
	Light	Full	Gap	Light	Full	Gap	Light	Full	Gap	Light	Full	Gap
Paid work	159	192	-33	147	123	24	281	315	-34	256	187	69
Unpaid domestic and care work	214	245	-31	226	277	-51	56	82	-26	117	162	-45
Total work	372	437	-65	373	400	-27	337	397	-60	373	349	24
Leisure	358	293	65	312	247	65	370	329	41	328	287	41
Personal care	670	683	-13	696	753	-57	656	672	-16	674	732	-58
Total (without learning and travel)	1401	1413	-12	1381	1400	-19	1363	1398	-35	1375	1368	7

In Japan as well as in Bulgaria and for both sexes, a significant underestimation of unpaid domestic activities is observed in the light diary approach as compared with the full diary approach. Bulgaria and Japan diverge about the effect of the light diary approach on paid work: the difference is also negative in Japan, but it is positive in Bulgaria, especially among men. As a result, whereas a similar negative difference is observed in total work for Japan, a dissimilar difference shows up between women and men in total work in Bulgaria, ending in an equivalent time spent by women and men in total work (373 minutes).

Figure D 2. 1: Comparison of light and full diaries in Japan (2021) and in Bulgaria (2018)



Source: Table D 2.3.

Conclusion

The experiences of Japan and Bulgaria in the application of light diaries for time-use surveys clearly show that the light diary approach leads to an underestimation of unpaid domestic activities. However, in both case the number of prelisted activities for unpaid domestic work (including shopping) is limited (2 in Japan on a total of 20 prelisted activities and 4 in Bulgaria on a total of 21 activities). Both the UNSD Minimum Harmonized Instrument and the ILO Own-Use Provision of Services add-on light diary focus more on unpaid domestic activities (7 for the former on a total of 25 activities and 9 for the later on a total of 45 activities), not to mention unpaid care activities (2 prelisted activities for the MHI and 7 for the ILO). With such details in the collection of time spent in unpaid domestic activities and unpaid activities in general, the risk of underestimation of female as well male unpaid work seems to be moving away, as shown by the experience of Zimbabwe (ZIMSTAT 2025), but we should keep in mind that the longer the list of pre-coded activities, the more difficult is the application of the diary.

ANNEX E: QUALITY ASSESSMENT FOR 100 TUS

We repeat here this procedure with some variations. In particular, we add two more characteristics: the sample of all eligible members or only 2 or 1 and the number of diaries per person (2 or 1). Furthermore, we added a criterion on timeliness, accessibility and availability of detailed tabulations rewarding two friendly users' models of data presentation. However more refinements could be introduced. For instance, the length of time slots, the non-response rate, whether or not all activities are covered or only the unpaid, or the paid and unpaid but not free time and personal care.

Table E1 below assigns scores according to the surveys' characteristics and Table 2 scores the time-use surveys in our database.

Table E1: Scoring of surveys' characteristics

	2 points	1 point	0 point
Duration of observation	12 months	2 to 11 months or several rounds	<2 months
Type of questionnaire	Full diary	Light diary of stylized questions	Other
Number of sampled eligible persons	All	2+	1
Number of diaries per person*	2 (weekday/weekend day)	1	
Length of classification	International or national full classification	15+ activities	<15 activities
Timeliness, accessibility and detailed tabulations			

Note: * For stylized questionnaires that collect data on a week period, the score is counted for 2.

A score of 8-10 points is graded A and corresponds to a baseline uncertainty of 5 per cent.

A score of 5-7 points is graded B and corresponds to a baseline uncertainty of 10 per cent.

A score below 5 points is graded C and corresponds to a baseline uncertainty of 20 per cent. As a matter of fact, none among the surveys analyzed fall into this category because the database excluded such surveys.

The most discriminating criteria are 'eligibility' (whether all members of the household are interviewed or not) and duration of data collection.

Table E2: Scoring of most recent year TUS for countries in our database

	Year	Age group	Eligibility	Type of question-naire	Number of diaries	Length of classification	Time duration of data collection	Timeli-ness, accessi-bility and detailed	Scoring	Final score

								tabula-tion		
Albania 2010-11	2010	10+	All	Full diary	2	HETUS	12 months		10	A
Algeria 2012	2012	12+	All	Full diary	1	HETUS	2 months		7	B
Argentina 2021	2021	14+	1 random	Full diary	1	CAUTAL	3 months		6	B
Armenia 2008	2008	15-80	All	Full diary	2	ICATUS	8 months		9	A
Australia 2020-21	2021	15+	All	Full diary	2 consecu-tive	National	3 rounds Nov to July		9	A
Austria 2021-22	2022	10+	All	Full diary	2 (10 min)	HETUS	15 months		10	A
Azerbaijan 2012	2012	15+	All	Full diary	2	HETUS	12 months		10	A
Bangladesh 2021	2021	15+	All	Full diary	1	ICATUS	3 months		9	A
Belarus 2014-15	2014	10+	All	Full diary	2	ICATUS	12 months		10	A
Belgium 2013	2013	10+/12+	All	Full diary	2	HETUS	12 months		10	A
Benin 2015	2015	6+	All	Diary	1	84 activities	1 month		7	B
Bhutan 2015	2015	15+		Diary precoded						
Brazil 2009	2009	10+	1 random	Full diary	1	ICATUS	3 months		6	B
Bulgaria 2022-23	2022	10+	All	Full diary	2 (10 min)	HETUS	12 months		10	A
Cambodia 2019	2019	18+	All	Diary precoded	1	Prelisted 26 activities	3 months		6	B
Cameroon 2014	2014	10+	Household head + 1 Kish random	Full diary	1	ICATUS	12 months		7	B
Canada 2022	2022	15+	1 random	Full diary	1	National	12 months		7	B
China 2024	2024	6+	All	Light diary	2	Prelisted 13 activities	1 month		6	B
China Hong Kong 2013	2013	15+	1 random	Full diary	2	Detailed classification	3 months		7	B
Colombia 2016-17	2017	10+	All	Stylized questions	2	67 activities	12 months		8	A
Costa Rica 2022	2022	12+	All	Stylized questions	2	CAUTAL	2 months		7	B
Croatia 2022-23	2023	15+	All	Full diary	Two diaries	HETUS	12 months		10	A

					up to 3 members, one diary for others					
Cuba 2016	2016	15-74	All	Stylized questions	2	21 activities	1 month		6	B
Denmark 2001	2001	16-74	All	Diary	2	HETUS	2 rounds of 2 months		9	A
Egypt 2015	2015	10+	Kish 1 male 1 female	Full diary	1 (10 min)	ICATUS	2 months		7	A
El Salvador 2010	2022	12+	All	Stylized questions	2	CAUTAL	9 months		8	A
Estonia 2019-21	2020	10+	All	Full diary	2	HETUS	12 months		10	A
Ethiopia 2013	2013	10+	All	Full diary	1	ICATUS	1 month		7	A
Finland 2020-21	2021	10+	All	Full diary	2	HETUS	12 months		10	A
France 2010	2010	15+	All	Full diary	2	Ad hoc detailed HETUS	12 months		10	A
Georgia 2020-21	2021	15+	All	Full diary	2	ICATUS	12 months		10	A
Germany 2012-13	2013	10+	All	Full diary	3 (72 hours)	Ad hoc detailed HETUS	12 months		10	A
Ghana 2009	2009	10+	All	Full diary	1	ICATUS	2 months		8	A
Greece 2013-14	2013	10+	All	Full diary	2	HETUS	12 months		10	A
Hungary 2009-10	2010	15-74	All	Full diary	2	HETUS	12 months		10	A
India 2024	2024	6+	All	Full diary	1	ICATUS	12 months		9	A
Iran urban 2019 average	2019	15+	All	Full diary	1	ICATUS	12 months in 4 rounds		8	A
Iraq 2007	2007	10+	All	Light diary	1	Pre listed 26 activities	3 months		6	B
Ireland 2005	2005	18+	All	Light diary	2	Pre-listed 26 activities	2 months		7	A
Italy 2013-14	2014	15+	All	Full diary	1	In line HETUS	12 months		9	A
Japan 2021	2021	15+	All	Full + light diary	2 consecutive	Correspon-dence HETUS	1 month	Yes	10	A

Kazakhstan 2018	2018	12+	All	Full diary	2	ICATUS	12 months		10	A
Kenya 2021	2021	15+	Two Kish	Full diary	1	ICATUS	12 months		8	A
Korea 2019	2019	10+	All	Full diary	2 consecutive	KTUS	3 rounds		9	A
Kyrgyzstan 2021	2021	12+	All	Full diary	1	HETUS	12 months		10	A
Latvia 2003	2003	10+	All	Full diary	2	HETUS	8 months		9	A
Lithuania 2003	2003	10+	All	Full diary	2	HETUS	12 months		10	A
Luxemburg 2014	2014	10-74	All	Full diary	2	HETUS	12 months		10	A
Madagascar 2001	2001	6-65	All	Diary	1	63 activities	2 months		7	B
Mali 2008*	2008	6-65	Kish	Diary	1	63 activities	2 months		6	B
Malta 2002**	2002	10+	All	Diary	2	HETUS	2 months		9	A
Mauritius 2017-18	2018	12+	Kish 1 adul 15+ 1 child 12-14	Diary	1	ICATUS	12 months		7	B
Mexico 2019	2019	12+	All	Stylized questions	2	National	1 month		7	B
Moldova 2011-12	2011	10+	All	Full diary	1	HETUS	12 months		9	A
Mongolia 2023	2023	12+	All	Full diary	1	ICATUS	4 quarters		8	A
Morocco 2011-12	2012	7-14 and 15+	Kish 1 male 1 female	Full diary	1	ICATUS	12 months		8	A
Netherlands 2005-06	2005	12+	All	Full diary	2	HETUS	12 months		10	A
New Zealand 2009-10	2010	12+	Kish 2 persons	Full diary	2	ACTUS	12 months		9	A
Nicaragua 1998	1998	6+	All	Stylized questions (18 activities	2	List of 18 activities	3 months		7	B
Nigeria 2024	2024	15+	Kish 1 male 1 female	Full diary	1	ICATUS	4 months/2 rounds		7	B
North Macedonia 2014-15	2014	10+	All	Full diary	2	HETUS	12 months		10	A
Norway 2022	2022	16-74	All	Full diary	2 consecutive	Ad hoc detailed	12 months		10	A

Oman 2007-08	2007	15+		Light diary	1	Pre listed 23 activities	12 months		5	B
Pakistan 2007	2007	10+	Kish 2 persons	Full diary	1	ICATUS	12 months		8	A
Palestine 2012-13	2013	10+	Random 1 male 1 female	Full diary	1	ICATUS	12 months		8	A
Panama urban 2011	2011	15+	All	Stylized questions	2	Ad hoc detailed	1 month		9	A
Peru 2010	2010	12+	All	Stylized questions (17 activities)	2	17 activities derived from CAUTAL	2 months		7	B
Poland 2023	2023	15+	All	Full diary	2 (10 min)	HETUS	12 months		10	A
Portugal 1999	1999	15+	All	Full diary	2 consecutive	Ad hoc detailed	2 months		9	A
Qatar 2012-13	2013	15+		Diary	1	Pre listed 6 activities	12 months		5	B
Romania 2011-12	2012	10+	All	Full diary	2	HETUS	12 months		10	A
Russian Federation 2019	2019	15+	All	Full diary	2	ICATUS	12 months		10	A
Senegal 2021	2021	15+	Kish 4 adults	Full diary	1	ICATUS	4 months		7	B
Serbia 2021-22	2021	15+	All	Full diary	2	HETUS	12 months		10	A
Slovenia 2000-01	2000	10+	All	Full diary	2	HETUS	12 months		10	A
South Africa 2010	2010	10+	Kish 2 adults	Full diary	1	ICATUS	3 months		7	B
Spain 2009-10	2010	10+	All	Full diary	2	HETUS	12 months		10	A
Sri Lanka 2017	2017	**10+** 15+	All	Full diary	1	ICATUS	3 months		8	A
Sweden 2010-11	2010	20-84	Random	Full diary	2 (10 min)	Ad hoc detailed	12 months		10	A
Tajikistan 2022-23	2023	10+	All	Full diary	2 (10 min)	HETUS	3 months		9	A
Taiwan 2004	2004	15+	1 in small hh, up to 3 in larger hh	Diary precoded	2 consecutive	Prelisted 29 activities	1 month		5	B
Tanzania 2020-21	2021	5+	Kish 1 member	Full diary	1	ICATUS	12 months		7	B
Thailand 2014	2015	6+	Kish 1 person	Full diary	1	ICATUS	3 months		6	B

Tunisia 2005-06	2005	15+	All	Full diary	2	HETUS	12 months		10	A
Türkiye 2014-15	2015	10+	All	Full diary	2	HETUS	12 months		10	A
Uganda 2017-18	2018	14+	Kish 1 male 1 female	Full diary	1	ICATUS	4 months		7	B
UK 2020-23	2023	18+	Sampling individuals	Full diary	2	Ad hoc detailed	3 rounds in 2023		7	B
USA 2023	2023	15+	Random 1 person	Full diary	1	ATUS	12 months	Yes	9	A
Viet Nam 2022	2022	15-64	Kish 1 person	Full diary	1	Adapted trial ICATUS	3 months		6	B
Venezuela 2023	2023	10+	All	Light diary	1	National	1 month		6	B
INCOMPLETE DATA										
Burkina Faso 2018	2018	15+	All	Full diary	1	ICATUS 2007 adapted	2 months		8	A
Cabo Verde 2012*	2012	10+	All	Stylized questions	2	34 activities (unpaid work)	3 months		7	B
Chile 2015	2015	12+	All	Stylized questions	2	CAUTAL	3 months		8	A
Denmark 2008-09	2008	18-74								
Dominican Republic 2016	2016	10+	1 random	Stylized questions	2	CAUTAL 38 activities	2 months		5	B
Ecuador 2012	2012	12+	All	Stylized questions	Past week	CAUTAL	2 months		8	
Guatemala 2023	2023	15+	All	Stylized questions	Past day	31 activities			6	
Paraguay 2016	2016	14+	All	Stylized questions	Past week	CAUTAL	3 months		8	
Switzerland 2020	2020	15+	All	Stylized questions	Past day	Ad hoc detailed limited to unpaid work	12 months in 4 rounds		7	
Uruguay 2013	2013	14+	All	Stylized questions	2 days	Ad hoc detailed limited to unpaid work	4 months		7	

ANNEX F: LIST OF KEY INFORMANTS INTERVIEWED

NORTHERN AFRICA (ARAB STATES)

Dominique Kanobana, UN Women Cairo (regional) (19/11/2024)

Sophia Benamar, UN Women Morocco (in contact, but not interviewed due to the recent appointment of a new High Commissioner for Planning (Statistics)

WEST and CENTRAL AFRICA

Michelle Seroussi, UN Women Dakar (Regional) (4/11/2024)

Mahmouth Diouf, UN Women Senegal (19/11/2024)
Sedric Tiobo'o, UN Women Cameroon (19/11/2024)
Christy Umunna, National Bureau of Statistics Nigeria (2/12/2024)

EASTERN and SOUTHERN AFRICA

Isabella Schmidt, UN Women Nairobi (Regional) (20/11/2024)

Joshua Musyimi, UN Women Kenya (27/11/2024)
Caneble Oganga, UN Women Kenya (27/11/2024)
Mitra Sadananda, UN Women Tanzania (26/11/2024)

EUROPE and CENTRAL ASIA

Ala Negruta, UN Women Istanbul (Regional) (28/02/2025)

Natia Mestvirishvili, UN Women Georgia (4/12/2024)

Lucine Kalantarian, ARMSTAT Armenia (18/12/2024)

LATIN AMERICA and the CARIBBEAN

Maria Paula Pinto Suarez, UN Women Colombia (23/01/2025)

ASIA and the PACIFIC

Sara Duerto, UN Women (regional) (21/01/2025)

Cecilia Thinonin, UN Women Bangladesh (21/01/2025)
Md Shohel Rana, UN Women Bangladesh (21/01/2025)
Nubayra Jeheen, UN Women Bangladesh (21/01/2025)