THE TELLING NATURE OF TIME

What time-use reveals about gender equality in Afghanistan

WOMEN COUNT

UN WOMEN

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Afghans for Afghanistan's Development (AFAD) Organization is a non-profit and non-government organization based in Kabul Afghanistan. AFAD works on youth development and women empowerment in Afghanistan. AFAD exists to be the enabling force in building a new Afghanistan that provides fair and equal opportunities to youth and the women of this country. We work with partners to facilitate women and youth empowerment by improving their access to education, healthcare, work opportunities and a fair government.

UN Women is the UN organization dedicated to gender equality and the empowerment of women. A global champion for women and girls, UN Women was established to accelerate progress on meeting their needs worldwide.

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A time-use survey has not previously been conducted in Afghanistan. As a result, there are data gaps on the contribution to human well-being by Afghan women through their unpaid cooking, cleaning and caring for family as well as their contribution to family businesses. Their work is statistically unrecognized despite the large amounts of women's time that it consumes, and the restrictions it places on women's ability to engage in other activities.

UN Women Afghanistan undertook an exploratory study of time use for which fieldwork was conducted in late 2018-early 2019. Data collection spanned urban and rural areas in seven provinces of Afghanistan, namely Nangarhar, Kabul, Takhar, Balkh, Herat, Kandahar and Paktia. The study was conducted by Afghans for Afghanistan Development (AFAD), with technical and financial support from the UN Women Country Office in Afghanistan. The study sets a strong foundation for an official time use survey to be conducted in Afghanistan that can inform development and implementation of policies that address gender and other economic and social inequalities.

The key findings of the survey include:

- Men spent three-quarters of their time on personal activities, while women spent less than two-thirds of their time in this way. These patterns are broadly in line with those found internationally.
- Among both those married and single, women spend more than three times as much time on unpaid domestic and care work than men do.
- Across all educational levels, men tend to spend more time than women on System of National Accounts production, women spend more time than men on unpaid domestic and care work, and men tend to spend more time than women on personal activities.
- Women spend more than two-thirds of their time on unpaid domestic and care work on housework. In absolute terms, they spend more than seven hours a day on housework on an average day.
- For men, the most common activity is childcare, where they report spending more than an hour on average. This must be contrasted with the more than two hours that women spend on child-care per day.
- Women in Afghanistan report spending approximately 11.4 hours doing unpaid domestic and care work compared to 2.8 hours reported by men. Housework accounts for 7.7 hours of the total.

Time spends by women

Time spends by men

11.4 Hours Unpaid domestic work

2.8 Hours
Office

2.3 Hours
Child care

1 Hours
Unpaid domestic work

0.45 Minutes
Elderly care

7.4 Hours
Cleaning

ACRONYMS AND ABBREVIATIONS

AFAD	Afghans for Afghanistan Development
CEDAW	Committee on the Elimination of Discrimination Against Women
HPC	Household and Population Census
GDP	Gross domestic product
ICATUS	International Classification of Activities for Time Use Statistics
NSIA	National Statistics and Information Authority
SDG	Sustainable Development Goal
SNA	System of National Accounts

INTRODUCTION

Time-use surveys

Time-use surveys (TUS) produce statistics that reflect the average number of hours per day that people with different characteristics and in different locations spend on various activities. They are the main specialized household surveys that provide statistics on the amount of time individuals spend on unpaid domestic and care work. Furthermore, TUS capture and reveal information that goes beyond what is available from other specialized household surveys, such as labour force survey (e.g. secondary jobs) and other standard surveys. They help to paint a more complete picture of society and, in particular, the unpaid contributions of both men and women as well as the total workload consisting of both paid and unpaid work.

In the early years of the twentieth century, TUS were used to broaden understanding of lifestyles and to understand aspects of peoples' lives about which is limited or no information was available from conventional data sources. Subsequently, and particularly during the last few decades of the twentieth century, TUS were increasingly used to highlight the value of the unpaid work done by women and men and its contribution to human welfare in different societies (Hirway, 2008).
While TUS have been conducted by diverse countries across the world, the approach needs to be adapted for the specific context and situation of the country concerned. TUS that are conducted in wealthier countries can often draw on an established and voluminous record of socioeconomic data. To the extent that in low-income countries a greater proportion of production is conducted on an unpaid basis, a TUS can also complement statistics produced by standard instruments such as labour force surveys. Because women are often more likely than men to do both employment-related and other forms of unpaid work, TUS are especially useful in revealing women's overall contribution to the economy and society more generally. This information, in turn, can inform development and implementation of policies that address gender and other economic and social inequalities.
Hirway suggests that a TUS contributes in three key ways:

- They provide a more complete picture of the society by producing socioeconomic data previously unavailable in existing statistical databases.
- They shed light on the paid and unpaid work of women and men and produce estimates of the contribution of unpaid work towards human wellbeing. This, in turn, may assist in integrating paid and unpaid work in national policies.
- They provide insight into different kinds of work and workers, thus improving conventional economic statistics.

Traditional economic statistics generally cover only those economic activities that are exchanged in the market, i.e. for which there is a monetary exchange.

System of National Accounts (SNA)

System of National Accounts (SNA), which is the internationally accepted framework used in calculating the Gross Domestic Product (GDP), economic statistics should also capture non-market production of goods. An example of this would be a household engaged in subsistence production, producing and consuming the basic foodstuffs it needs. A TUS has the advantage of capturing the time spent in these activities on a typical day.

The SNA states that non-market (i.e. unpaid) production of services should not be included at all when calculating GDP. This means that activities such as housework and care of children in one's own home are not reflected in a key measure of an economy, despite their obviously valuable contribution to human welfare.

The resultant gaps in standard economic measures limits measurements of welfare and the macro-level policies developed based on the measurement. These limitations can occur in employment, labour and other economic policies, as well as in development, social and gender equity policies. The limitations may well increase in times of economic, political and other crises in which households respond by adopting survival or coping strategies that include unremunerated activities.

The recent concluding remarks on Afghanistan by the Committee on the Elimination of Discrimination Against Women (CEDAW) (2020: paragraph 41) note that "women are concentrated in the informal economy, especially in agriculture, domestic work and unpaid care work". Similarly, it notes "with concern … the impact of unpaid care work on women's economic empowerment" and explicitly recommends that TUS be conducted as part of a national household survey so as to be able to estimate the value of unpaid domestic activities of women and develop policies for women's advancement on the basis of this information (CEDAW, 2020: paragraph 53-4). These comments highlight the relevance of a TUS for Afghanistan in particular.

International approaches to collecting time-use data

Time-use data consist, at the least, of information on the amount of time spent on each of a range of different activities. The two most common instruments used to collect such data are:

(a) diaries that record the activities performed in a 24-hour day, and
(b) questions asking how much time the respondent spent on each of a series of specified activities.

The second approach is often referred to as "stylized questions". Where stylized questions are asked, questionnaires may ask how much time the respondent spent on each activity in a specified past period, such as the previous week. Alternatively, the questionnaire may ask how much time the respondent usually spends on each activity in a day or longer period. In addition to this time-and-activity related information, a TUS usually collects data relating to gender, age, location and other characteristics of the respondents and their households. These latter questions can be collected through questions similar to those used in other types of surveys.

Collection of time-use diary data is more complicated. In some TUS that use diaries, respondents are given a blank diary format and asked to fill in the activities as they do them over the period of a day or longer. This approach is only feasible with a fully literate population. In other TUS, respondents are asked about the activities that they did in a past period, such as the most recent 24-hour day. These "recall" diaries can be completed by the respondents, or by a fieldworker who asks the respondent about their activities.

The advantages of a 24-hour diary over stylized questions include that they provide a more complete record of what a respondent did. In contrast, some of the activities done may not be captured in the pre-specified list of activities used in a stylized questionnaire. A further advantage of a 24-hour diary is that it provides information on which time of the day each activity is performed. It can also include other contextual information, such as where an activity was performed.

The "light" time diary is a hybrid of the full-diary and stylized approaches. In the "light" time diary the respondent is asked to specify what activity/ies they did in each period of a 24-hour day. However, instead of describing the activity using their own words, they are asked to choose from a list of pre-specified activities.

Within the two or three main approaches to collecting time-use data described briefly above, there are further variations. For example, for diaries the variations include the length of the time interval, which can range from ten minutes to an hour (60 minutes), and whether the respondent can report simultaneous activities, i.e. more than one activity performed at the same time. For "light" time diaries and stylized questions, the survey designer needs to decide how many and which activities to include. A 2005 guide produced by the United Nations suggests that the number should not exceed 30 (Department of Economic and Social Affairs Statistics Division, 2005: 52). For a "light" time diary, the specified activities must cover every possible activity that a person might do.

Full (rather than "light") time diaries are the most versatile instrument in terms of the analytical possibilities and the uses to which it can be put. These diaries are, however, generally more time-intensive for the respondents, field and office staff (including coders).

The choice of instrument depends on many factors, including, among others, available financial and other resources, the literacy and educational levels of respondents, linguistic and other forms of diversity in the respondent population, and the purpose of the data collection. Despite the complexities, reliable time-use data has been collected in countries with very different levels of economic development and literacy.

Time-use in Afghanistan

A TUS has not previously been conducted in Afghanistan. The country's official statistical agency (previously the Central Statistics Organization, but now renamed as the National Statistics and Information Authority (NSIA)), reports that the challenging security situation, limited government

capacity, limited financial resources, and a shortage of accurate data and statistics add to the difficulties of conducting surveys in Afghanistan (Central Statistics Organization, 2015). The country's National Strategy for Statistics for the period 2015 to 2019 did not provide for a TUS and international development agencies have also not conducted or financed a TUS in Afghanistan.

As in other countries and in line with the SNA guidelines, there are data gaps on the contribution to human well-being by Afghan women through their unpaid cooking, cleaning and caring for family. Their work is statistically unrecognized despite the large amounts of women's time that it consumes, the restrictions it places on women's ability to engage in other activities, and the fact that if these unpaid services were not provided the people currently working in the "counted" economy would not have the food and care that they need to be healthy and productive workers, and children would not grow up to be healthy and productive members of the society.

A TUS would assist policy makers to recognize, understand and measure paid and unpaid work performed in the country and highlight the important contributions of Afghan women to both GDP and welfare more generally.

Background to the study

This paper illustrates the key features and findings of an exploratory study of time use for which the fieldwork was conducted in late 2018-early 2019. The study was implemented by Afghans for Afghanistan Development (AFAD), with technical and financial support from the UN Women Country Office in Afghanistan.

Time-use studies are complex to design, implement and analyse in any setting. The challenges increase in a low-income country such as Afghanistan that has suffered from many years of conflict, continues to have security-related restrictions on movement and safety concerns, and has low levels of literacy and a diverse population that includes people living in very remote areas. The relatively rigid gender norms prevailing in at least some parts of the country and the lack of previous experience of local actors in collecting time-use data added to the difficulties in conducting the exploratory study.

As shown below, the exploratory study provides some indicative statistics on the patterns of time use among adult women and men in Afghanistan. While these statistics are not derived from a sample that is fully representative of the country's adult population, the fact that the broad patterns in the data mirror what is found in other countries increases confidence in the possibility of conducting a successful TUS in Afghanistan.

Scope and coverage

The data collection spanned urban and rural areas of seven provinces of Afghanistan, namely Nangarhar, Kabul, Takhar, Balkh, Herat, Kandahar and Paktia. These provinces represent the

eastern, central, northern, north-eastern, western, southern, and south-eastern regional zones of the country respectively.

Process and timeline

Planning for the data collection commenced in September 2018. The planning steps included recruitment of administrative and field staff and establishment of project offices. Staff included field supervisors and field assistants in each of the provinces, as well as survey facilitators who assisted with logistical arrangements.

The October-November period of 2018 was used to finalise the questionnaire and diary, including a time-use diary. The team sought advice from both UN Women country office and other stakeholders in adapting the instruments used elsewhere to fit the cultural and social situation in Afghanistan. The draft instrument was piloted in Kabul so as to test both the content and format. The instruments were subsequently further simplified and adjusted.

A training workshop for supervisors and other field staff was held in Kabul during December 2018. The workshop content included how to conduct an interview, field procedure, concepts, definitions of the terms used in the questionnaire, and coding of diary activities. Field staff were also trained to understand the objectives of the survey, the intent of the questionnaire, the accompanying diary, and ethical considerations.

The field teams included the regular male fieldworkers alongside women fieldworkers especially recruited for this data collection exercise. After training, the teams were sent to the different provinces. Before collecting data, the field supervisors led the provincial teams in liaising with local stakeholders. The field assistants assisted with collecting responses and completing the questionnaires. To ensure the quality and accuracy of data, field supervisors as well as headquarters staff made frequent visits to the field during the data collection process to do spot checks. These activities continued through January 2019.

During February 2019 the completed questionnaires and diaries were transported to Kabul. In Kabul, the data were captured into a specially designed database. The data were then cleaned and coded in preparation for analysis.

AFAD did the data analysis and report-writing in the period March and April 2019. During this period, AFAD organised focus group discussions in each of the target provinces. These sessions were used to present preliminary findings to women and men who had been respondents during the data collection phase, and to ask for any feedback or questions they might have. The intention was to use this feedback in refining the analysis and report. The findings were then presented to UN Women and other stakeholders.

Further date analysis was conducted in late 2020 for the purposes of writing this paper.

METHODOLOGY

Developing and implementing the approach

AFAD developed the methodology for the data collection in partnership with the Afghanistan UN Women team. AFAD reviewed the approach and instruments used for previous time-use surveys in the region, such as those conducted in India and Pakistan. They then developed an approach that they thought would be best suited to the situation in Afghanistan, drawing on advice from academics, activists and statisticians as well as UN Women. The factors considered by the team in developing the methodology included (a) the low levels of literacy in Afghanistan especially among women; (b) limited use of clocks or other time pieces in some parts of the country; (c) the difficulty male fieldworkers might encounter in interviewing women respondents; (d) seasonal differences in activities, especially in terms of agricultural activities in the more rural areas; (e) the difficulty in obtaining accurate information on informal employment or where respondents had multiple jobs; (f) the greater likelihood of women reporting multiple tasks done simultaneously; and (g) the need to capture the diversity of the country's population.

In terms of literacy, the overall adult literacy rate in Afghanistan is estimated to be 31%. The average literacy rate for adult women is 17%, as against 45% for men. For both women and men, but especially for women, there is wide variation in the literacy rate across geographical areas. For women, the rate varies 35% in Kabul and 2% in two southern provinces of the country. For men, the range is between 68% in Kabul and 41% in Helmand (United Nations Educational, Scientific and Cultural Organization, 2019).

The gender disparities in the literacy rate are due, among others, to the cultural norm of women not attending school and instead spending time managing the household, security problems in travelling to classes, and families sometimes not allowing women to attend classes. The disparity between urban and rural areas is due to, among others, security problems, lack of schools in remote areas, long walking distance to schools, and low demand for literacy especially for women due to cultural barriers.

To address the literacy challenge and the absence of time pieces in some areas, fieldworkers were trained to spend sufficient time ensuring that respondents understood the questions asked and could provide accurate estimates of the time spent on different activities. Special attention was given in respect of estimating the time spent on simultaneous activities, such as a woman cooking and caring for her children at the same time.

To address the challenges male fieldworkers might encounter in interviewing women, women fieldworkers were hired alongside the usual male fieldworkers. Where possible, female respondents were interviewed by female fieldworkers and male respondents by male fieldworkers.

The fact that the fieldwork took place in winter resulted in less time being reported for agricultural activities, especially in rural areas. The type of agricultural activity reported might also have been different if data had been collected at another time of the year.

The Afghanistan exploratory study was conducted through face-to-face individual interviews. Local Afghan organizations such as the country-wide membership-based Association of the Afghanistan Teacher Trainers assisted AFAD in implementing the data collection. The data collection was, however, carried out by trained fieldworkers under the guidance and supervision of national and regional supervisors.

The average duration of the interviews was approximately two hours. Respondents were asked for their consent at the start of the interview, and told that they were free to refuse to answer any question.

In each of the seven provinces, there was an attempt to conduct interviews in as many villages as possible, and to survey both urban and rural residents.

The data collection instrument

The questionnaire was drafted in English and translated into and administered in the two official languages of Afghanistan, namely Pashto and Dari.

The questionnaire consisted of four sections with different foci, as follows:[1]

- Section 1: Basic geographic information on the respondent in the form of the province, district and village in which they lived, and whether the area was rural or urban.
- Section 2: Basic demographic information, in the form of age, gender, ethnicity, marital status, number of children, and education.
- Section 3: Amount of time spent on SNA production activities. (See box)
- Section 4: Amount of time spent on non-SNA production (unpaid domestic and care work) and non-productive activities.
- Section 5: A diary, divided into hour-long slots, in which to record activities performed over a 24-hour period.

The first four sections had primarily closed-ended questions. Sections 3 and 4 asked closed-ended questions about participation in, and the time spent on, 70 pre-specified activities. For Section 5, respondents were asked to say in their own words what they did in each time period.

The 70 pre-specified activities were conceptualised and arranged within the framework of the International Classification of Activities for Time Use Statistics (ICATUS).

[1]The English version of the questionnaire used terms that were not always strictly accurate. For example, section 1 was described as "demographic", section 2 as "biographical", and section 3 as focusing on "market-oriented activities. The description of the sections in this paper reflects more accurately the actual focus of the questions in each section.

The International Classification of Activities for Time Use Statistics

ICATUS, like other international statistical classifications, is a hierarchical system. It has nine major divisions, as follows:

1. **Employment and related activities**
2. **Production of goods for own final use**
3. **3 Unpaid domestic services for household and family members**
4. **Unpaid caregiving services for household and family members**
5. **Unpaid volunteer, trainee and other unpaid work**
6. **Learning**
7. **Socializing and communication, community participation and religious practice**
8. **Culture, leisure, mass-media and sports practices**
9. **Self-care and maintenance**

The first two major divisions fall within the production boundary of the SNA. These SNA productive activities represent paid production of goods and/or services and unpaid production of goods.

The next three major divisions fall within the general production boundary and they are recognized as work. However, these activities – which take the form of unpaid production of services – are not within the SNA production boundary. They are therefore not considered when calculating the GDP of a country.

The remaining four major divisions represent personal (non-productive) activities that range from socialising, through worshipping and learning, to eating, drinking and sleeping.
Each of the major divisions is divided into up to nine minor divisions by adding a second digit. For example, the first four minor divisions of Unpaid domestic services for household and family members are:

31 Food and meals management and preparation
32 Cleaning and maintaining of own dwelling and surroundings
33 Do-it-yourself decoration, maintenance and repair
34 Care and maintenance of textiles and footwear

Similarly, each minor division has up to nine sub-divisions indicated by a third digit. The following three activity categories represent the first three sub-divisions within Food and meals management and preparation:

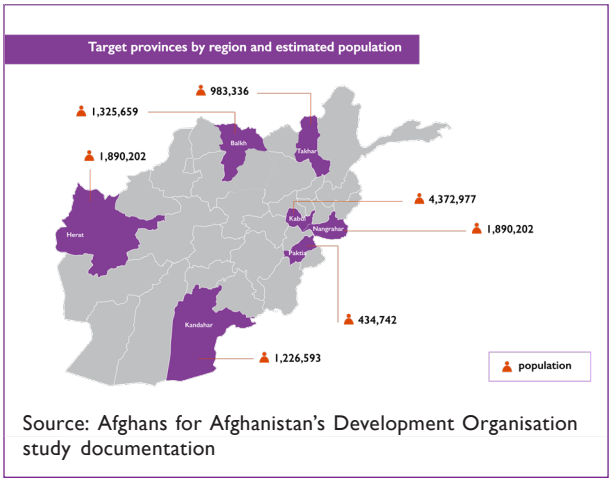
311 Preparing meals/snacks
312 Serving meals/snacks
313 Cleaning up after food preparation/meals/snacks

An appendix to this report lists the 70 activities used in the questionnaire for Afghanistan in terms of four broad categories – SNA production, unpaid domestic and care work, volunteer work, and personal activities.

Sampling

The only Household and Population Census (HPC) ever conducted in Afghanistan was in 1979. However, a household listing was conducted over the period 2002 to 2005 in anticipation of conducting a second HPC. Unfortunately, the security situation prevented implementation of the second census exercise. Nevertheless, the listing established a new baseline for population estimates and the data necessary to create a new sampling frame. The sampling frame was subsequently updated in 2009. The updated frame was used, for example, in designing the sampling for the Demographic and Health Survey conducted in 2015 (Central Statistics Organization et al, 2017).
The targeted size of the sample for the time-use data collection was calculated on the basis of an estimated population of 30 million in Afghanistan. Further, an average household was assumed to consist of six people, of whom two would be adults aged 18 years and above. This yielded a total adult population of 10 million. The team's statisticians calculated that a sample of 4,159 would yield results that were accurate at the 99% confidence level with a 2% margin of error. This calculation assumed random sampling.

Time-use data were collected in seven of Afghanistan's 34 provinces. The table below, which was used by the AFAD team, shows that the estimated population of the target provinces varied substantially, ranging from less than 500,000 in Paktia to more than four million in Kabul. In order to have an adequate sample for each of the provinces, sampling was not proportionate to population size, but instead set at a targeted 400 interviews for all provinces except Kabul, where the target sample size was 800. This would have resulted in a sample of 4,400 respondents, slightly higher than the 4,159 calculated, if the target size were achieved.



Source: Afghans for Afghanistan's Development Organisation study documentation

Data collection exercises rarely achieve the exact targeted number and distribution of interviews. The data collection in Afghanistan – as seen further below in the section showing results of the analysis – did not exactly match the planned provincial targets. In addition, convenience, rather than random, sampling was used at the individual level. Stated differently, the respondents to be interviewed were not pre-specified using statistical techniques. Instead, fieldworkers interviewed people who were most easily available and were aged 18 years and above. Further, fieldworkers were instructed to administer the questionnaire to more women than men.

The sample was made up of two groups. The first group consisted of people who voluntarily made themselves available to be interviewed. The second group consisted of people who were approached by fieldworkers and requested to participate. In respect of the first group, the data collection was publicised and people were invited to volunteer to be interviewed. Many came to the centres

where the fieldworkers were based and were interviewed there. In terms of the second group, the fieldworkers went out and visited households to identify individuals who were willing to be interviewed.

Capturing of data

The main body of the time-use questionnaire asked about participation and time spent in each of the 70 activities in two slightly different ways. For employment and unpaid production of goods, it first asked, as illustrated below, whether the person engaged in the activity, with codes for (Y)es or (N) o. This was followed by four spaces where the fieldworker could specify the time spent per day (D), week (W), month (M) or year (Y). For unpaid domestic and care work, volunteering, and personal activities, there was no space to choose between Yes and No, only four spaces relating to the four period options. In both versions, the time spent could be recorded in either hours or minutes.

The questions were asked in the present tense, rather than about a specific past day, week, month or year. The respondent was thus expected to provide an estimate of the usual time spent on each activity in a year, month, week or day.

1	Do you hunt?					
	Yes	No	D	W	M	Y
	بلی	نخیر	روزانه	هفته	ماه	سال

The Yes/No was not captured, and the period, number of units, and unit (hours or minutes) used were captured in a single field. There were thus 70 activity variables (corresponding to the 70 activities asked about in the questionnaire) for each respondent. This yielded a total of 246,240 activity records over the 3,504 respondents for whom questionnaire data were captured. AFAD explained that although a larger number of respondents were interviewed, in line with the targeted sample, data from only these 3,504 was of adequate quality to merit capturing.

The standard format for activity variables was X999Y, where X would be D, W, M or Y; 999 would be the number of units, and Y would be H (for hours) or M (for minutes). With the Yes/No question either not asked or not captured, the absence of any data in this variable for a given respondent implied that the respondent in question did not do the activity. Across the 3,504 respondents, an average of 33% of activity variables contained some data.

Cleaning and imputation

Overall, 46,733 (58%) of the 80,211 reported (non-blank) activities were recorded in the prescribed format after preliminary cleaning such as removing extraneous spaces and standardising on use of upper case. Recording errors were found for at least one activity for 97% of respondents. A quarter (25%) of respondents had no correctly time-coded activities i.e. all their reported activities were recorded using an incorrect format.
The most common coding errors were:

- X recorded as something other than "D", "W", "M" or "Y", for example "N2H";
- Y recorded as something other than "H" or "M", for example "Y2W";
- X being omitted, for example "Y480";
- Y being omitted, for example "D1";
- Some combination of the above;
- X and Y being omitted and the number section consisting of something other than a simple integer, for example "1.5", "1h30", or "1:20".

Where the format was valid, the time was converted to a standardised measure of minutes per day using simple arithmetic functions. A series of logical imputations was then applied to increase the useable data. The most common imputations were as follows:

- Where Y was "Hr" it was treated as "H";
- Where Y was "Min" it was treated as "M";
- Where Y was missing and the number of units was in the hundreds, it was assumed that the unit measure was minutes;
- Where Y was missing and the number of units was less than five, it was assumed that the unit measure was hours;
- Where both X and Y were missing and the number of units was in the hundreds, it was assumed that the number represented minutes per day;
- Where X specified a month or year and Y was "D", the respondent was assumed to have specified days. A day was given the value of 480 minutes (8 hours) on the assumption that few activities would be done for longer than this, unless the activity was a farming-related one, where a longer workday was assumed. This imputation probably resulted in an over-estimate as the respondent probably meant that the activity was done "on" the specified number of days, rather than that it was always done for the whole day. Further, paid work activities were unlikely to have been performed for 8 or more hours on both weekdays and weekends. However, when divided by 30 (for a month) or 365 (for a year), the resulting estimate per day was too small to bias results unduly.
- In other cases where X or Y was neither blank nor one of the valid responses, it was treated in the same way as if it was blank unless the response was located on a keyboard next to one of the valid responses.

In addition, some case-by-case imputation was done where, for example, either X or Y was the letter next to a prescribed code on a standard keyboard. All the imputations combined contributed to a situation where 99.6% of reported activities had a time allocated to them.

All imputed estimates were converted to minutes per day, and rounded to the nearest integer. Where the division resulted in a non-zero number lower than 0.5, the estimate was rounded up to 1. Much less data cleaning was required for other variables. Common coding errors that were easy to correct included inconsistent capitalisation, extraneous spaces, and some misspellings. Some errors and missing data could, unfortunately, not be corrected. For example, missing information in respect of the gender/sex of the respondent resulted in the deletion of five respondents and the related time-use information. This was necessary given that gender was core to the time-use analysis planned. A total of 68 respondents were recording as being less than 18 years old. AFAD

confirmed that no child respondents had been interviewed. For these records the age was therefore changed to missing.

The database contained activity data in respect of non-SNA activities for 20 respondents for whom there were no data captured for sections 1, 2 and 3 of the questionnaire. The data for these 20 respondents was not included in the analysis presented below.

Diary data

AFAD did not capture the diary data electronically and reported that many respondents struggled with the diary, especially if they were illiterate. AFAD therefore decided not to capture the diary data electronically. The diary data are not considered in the analysis presented below.

Weighting

National surveys often include weights which are intended to produce results representative of the population as a whole. The weights correct for cases of non-response and instances where the proportion of a sub-group (for example, by region, sex, age) in the population is not the same as the proportion of that sub-group in the population as a whole.

The dataset produced from the Afghanistan study data did not include any weights. Given the convenience sampling approach used in data collection, the challenges in achieving a representative sample given the security and other constraints, and the lack of information about respondents for whom questionnaires were unusable, it would have been very difficult to develop reliable weights. The analysis below is therefore presented without any weighting of observations.

TIME USE MEASURMENT

There are three standard time-use measures that are used internationally, namely:

- The participation rate i.e. the percentage of respondents engaging in a given activity in a given period;
- The mean population time i.e. the average time spent by a person (or a member of a sub-population) on a given activity in a given period, averaged over the full population or sub-population, including those who did not do the activity; and
- The mean actor time i.e. the average time spent by a person (or a member of a sub-population) on a given activity in a given period, averaged over those persons in the population or sub-population who did the activity.

Unfortunately, it is not possible to generate reliable estimates of the participation rate from the Afghanistan data because the questionnaire allowed respondents to choose the period they used for reporting. As a result, if a person reported that they did an activity for a given length of time in a

week, month or year, we cannot assume that they would have done the activity (i.e. "participated") on any randomly selected day within the week, month or year.

More detailed analysis of the distribution of the use of a day, week, month or year for each of the 70 activities reveals that the daily measure was used in reporting for a large proportion of reported unpaid domestic and care work activities, but with some exceptions. Agriculture-related activities and some personal activities (in particular, socialising in various ways), were more likely to be reported for a longer, even annual, period.

Given the challenges with the data, we focus the analysis on mean population time. Fortunately, this is the measure required for the Sustainable Development Goal time-use related indicator. (See further discussion below.)

DEMOGRAPHICS OF SAMPLE

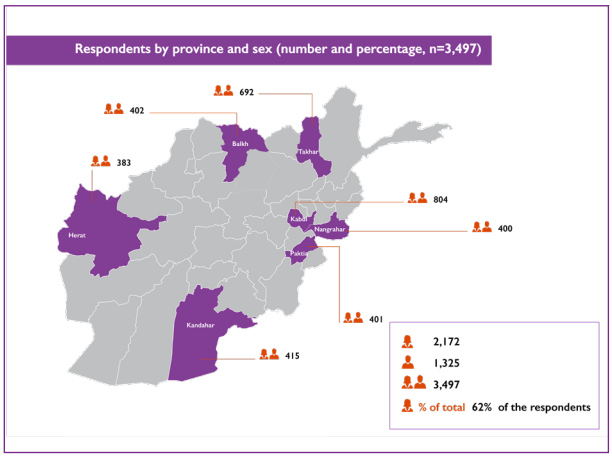


Table 2 shows the distribution, by province and sex, of the respondents for whom there was usable time-use data and a non-blank sex variable. The "Total" column shows that, as planned, Kabul's sample was in the region of 800 respondents. Five of the six other provinces had samples approximating the planned 400. The exception was Takhar, with close of 700 respondents rather than the 400 planned. Of the 3,497 respondents, 62% were female. Only just over a quarter (27%) of the respondents in Paktia were female, but in all other provinces more than half of respondents were female. This result is expected given that enumerators prioritized female's interviews. In Nangarhar, more than three-quarters were female. Most – perhaps all – these proportions would not correspond to the female percentage of the adult population of the given province. This would result in biased estimates if time use were calculated for male and female combined. It will also distort comparisons of the time use of women and men in the sample as a whole to the extent that a province in which men (or women) are over- or under-represented has men (or women) whose time use differs from that in other provinces.

Table 1 shows that overall, the sample was more or less equally split into rural and urban. This profile over-represents urban residents as Aghanistan's population is overwhelmingly rural. The degree of rurality differed very widely across provinces in the sample. In Balkh, only 1% of respondents were classified as living in rural areas. In Nangarhar, in contrast, all respondents were classified as rural. Paktia and Herat were also overwhelmingly rural. These patterns would need to be taken into account when comparing time use patterns across provinces as the area type is likely to affect activities. The rural-urban distinction could also affect comparisons of the use of time by women and men as only 45% of female respondents were rural as compared to 61% of male respondents.

Table 1. Respondents by province and area type (number and percentage, n=3,497)

Province	Rural	Urban	Unspecified	Total	% Rural
Balkh	5	397	0	402	1%
Herat	334	48	1	383	87%
Kabul	146	654	4	804	18%
Kandahar	126	284	5	415	30%
Nangarhar	400	0	0	400	100%
Paktia	361	40	0	401	90%
Takhar	410	278	4	692	59%
Total	**1,782**	**1,701**	**14**	**3,497**	**51%**

The age of respondents (for the 98% of respondents for whom age was specified) ranged from 18 to 85 years. There was very little difference in the age patterns of female and male respondents. The median age for both women and men was 30 years, while the mean was 32.1 years for women and 33.0 years for men.

Table 2 shows Pashtun dominating the sample, at close on six out of every ten respondents. Tajik respondents constituted the next most common ethnic group, with this ethnicity noticeably more common for female than male respondents. This reflects the dominance of women in the Kabul sample as Tajik respondents were common in Kabul. Other ethnic groups were far smaller, with Hazara, at only 3%, the next most common.

Table 2. Respondents by ethnicity and sex (number and percentage, n=3,491)

Ethnicity	Female		Male		Total	
	N	%	N	%	N	%
Pashtun	1,247	57%	778	59%	2,025	58%
Tajik	771	36%	402	30%	1,173	34%
Hazara	58	3%	54	4%	112	3%
Other	864	40%	490	37%	1,354	39%
Total	**2,169**	**100%**	**1,322**	**100%**	**3,491**	**100%**

Table 3 reveals that over two-thirds of respondents were married and 30% single. The status of women and men in respect of marital status was fairly similar, but women were more likely than men to be widowed or divorced.

Table 3. Respondents by marital status and sex (number and percentage, n=3,492)

Marital status	Female		Male		Total	
	N	%	N	%	N	%
Divorced	21	1%	1	0%	22	1%
Married	1,409	65%	917	69%	2,326	67%
Single	650	30%	402	30%	1,052	30%
Widow	90	4%	2	0%	92	3%
Total	2,170	100%	1,322	100%	3,492	100%

Among the female respondents, 61% reported that they had children, while this was the case for a very similar 60% of the male respondents. Women tended to report more children than men but the difference between women and men was small. The fact that such a large percentage of women report no children again suggests that the sample is not representative of the population as a whole.

Table 4 reveals clear differences in the educational profile of female and male respondents. Men are noticeably less likely than women to have received no formal education, and far more likely than women to have a tertiary education. The fact that 26% of all respondents report a tertiary education is again not representative of the population as a whole. For example, the Afghan Demographic and Health Survey of 2015 found that only 4% of women and 10% of men had completed even secondary school (Central Statistics Organization et al, 2017: 12).

Table 4. Respondents by level of education and sex (number and percentage, n=3,497)

Educational level	Female		Male		Total	
	N	%	N	%	N	%
None	963	44%	30%	404	1,367	39%
Primary	232	11%	12%	155	387	11%
Secondary	477	22%	27%	352	829	24%
University	500	23%	31%	414	914	26%
Total	2,172	100%	100%	1,325	3,497	100%

SUSTAINABLE DEVELOPMENT GOAL INDICATOR 5.4.1

Goal 5 of the Sustainable Development Goals (SDGs) is to achieve gender equality and empower all women and girls. The related target 5.4 is to "recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate." Indicator 5.4.1 requires time-use data as it is defined as the proportion of time (per 24-hour day) spent on unpaid domestic and care work, by sex, age and location. In formal terms, it is calculated using the following formula:

$$\text{Indicator 5.4.1} = \frac{(\text{Daily number of hours spent on domestic work} + \text{Daily number of hours spent on care work})/24}{24} \times 100$$

$$\text{Daily number of hours spent on relevant activities} = \frac{\text{(Total number of hours spent by @the population on relevant activities)}}{\text{(Total population (regardless of whether @they participated in the activity))}}$$

The official SDG 5.4.1 indicator metadata provides for disaggregation of the indicator by sex, age and location. In this report we include sex when calculating the indicator for age and location because gender is a key determinant of time use. Based on the tables shown above: Table 5 shows the overall SDG indicator ("All", as well as the simple disaggregation by location.

The recommended age groups for the disaggregation are: 15+, 15-24, 25-44, 45-54, 55-64 and 65+. The Afghanistan data are not sufficiently robust to allow this level of disaggregation because there are not sufficient observations in all the sex-age group combinations. We therefore combine the oldest three groups into a single age group of 45 years and above. Table 8 shows the results.

Table 5. SDG indicator 5.4.1 by location

Location	Female	Male
Rural	8.7	2.6
Urban	5.6	1.7
All	6.9	2.2

Table 6. SDG indicator 5.4.1 by age group

Age group	Female	Male
18-24 years	6.0	1.7
25-44 years	7.5	2.3
45 years & above	7.3	2.7

BROAD PATTERN OF TIME USE

This section looks beyond the SDG indicator in exploring patterns of reported time use of Afghanistan's women and men. The analysis focuses on broad categories of time use.

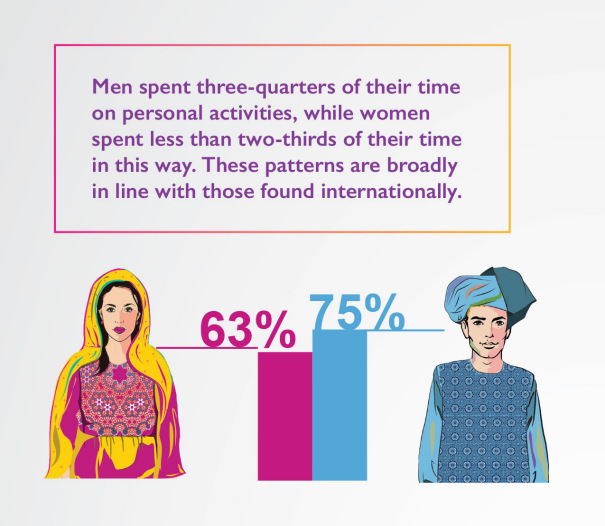
Table 7 shows the broad patterns of reported time use among the female and male respondents. The four key ICATUS activity categories are used, namely SNA production, unpaid domestic and care services, volunteering, and personal activities. The minutes represent mean (average) minutes per day after standardizing across the duration reported for weeks, months and years.

In each day there are 1,440 minutes (24 hours of 60 minutes each). The table shows more than this total for both women and men. This is not necessarily an error, as where a respondent performs two activities simultaneously – for example, where a woman is cooking at the same time as looking after children – they are likely to report the full duration for both activities. The fact that the total number of minutes for women is larger than the total for men is also not unusual, as women generally are more likely than men to do more than one activity at a time. Nevertheless, the extent to which the totals exceed 1,440 suggests some degree of over-reporting. This could happen, for example, where a person reported the usual number of minutes spent on an activity on a weekday, without taking account of the fact that no time is spent on the activity over the weekend. To simplify matters and facilitate comparisons, below we report the percentage of a day spent on each activity. This approach is common in time-use analysis to allow for reporting of simultaneous activities while retaining a 24-hour day.

Table 7 shows that male respondents reported spending twice as much of their time on SNA production than women did, while women reported spending more than three times as much of their time on unpaid domestic and care work than men did. These two patterns combined left men with noticeably more personal time than women. Men spent three-quarters of their time on personal activities, while women spent less than two-thirds of their time in this way. These patterns are broadly in line with those found internationally.

Table 7. Daily time use by sex (percentage, n=3,497)

Activity type	Female		Male	
	Minutes	%	Minutes	%
SNA production	168	7%	274	15%
Unpaid domestic & care services	685	29%	169	9%
Volunteer	14	1%	27	1%
Personal	1502	63%	1376	75%
Total	**2,370**	**100%**	**1,847**	**100%**



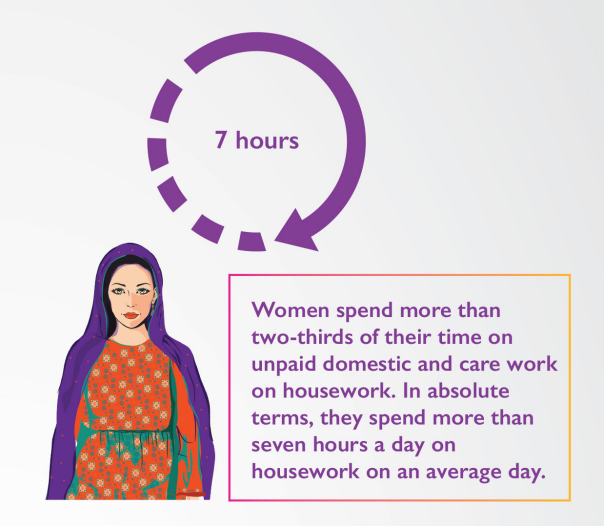


Table 8 confirms that men tend to spend much more time than women on SNA production, but much less than women on unpaid domestic and care work. The gender disparities are similar for the two broad age groups. Both women and men in the older group tend to spend somewhat more time on both SNA production and unpaid domestic and care work than their younger counterparts.

Table 8. Distribution of day by age group and sex (percentage, n=3,430)

Activity type	Under 30		30-plus	
	Female	Male	Female	Male
SNA production	7%	13%	8%	17%
Unpaid domestic & care services	26%	8%	32%	11%
Volunteer	1%	1%	1%	2%
Personal	66%	78%	60%	70%
Total	**100%**	**100%**	**100%**	**100%**

Table 9 reveals the same pattern of men spending more time than women on SNA production. The gender disparity is smaller in urban than rural areas, and respondents in urban areas also tend to spend less time than those in rural areas on SNA production. Rural women and men also spend more time than their urban counterparts on unpaid domestic and care work. The difference is particularly marked for women. This leaves urban residents with substantially more personal time than rural residents. Urban men appear to spend more than four-fifths of their time on personal activities.

Table 9. Distribution of day by activity type, area type and sex (percentage, n=3,483)

Activity type	Rural		Urban	
	Female	Male	Female	Male
SNA production	8%	18%	6%	11%
Unpaid domestic & care services	36%	11%	23%	7%
Volunteer	1%	2%	1%	1%
Personal	55%	70%	70%	81%
Total	100%	100%	100%	100%

Table 10 compares the time use of married and single women and men. For other categories of marital status are too small for reliable analysis of time use. As before, men tend to spend more time than women on SNA production, with the gender disparity slightly larger for single than married respondents. Married women and men spend more time than single women and men on unpaid domestic and care work. The relative difference between married and single men is larger than the relative difference between married and single women. However, among both married and single, women spend more than three times as much time on unpaid domestic and care work than men do. Single men have the most personal time, while single women have only slightly more personal time than married men.

Table 10. Distribution of day by activity type, marital status and sex (percentage, n=3,378)

Activity type	Married		Single	
	Female	Male	Female	Male
SNA production	8%	17%	4%	10%
Unpaid domestic & care services	33%	10%	21%	6%
Volunteer	1%	1%	1%	2%
Personal	59%	71%	74%	83%
Total	100%	100%	100%	100%

Table 11 compares the activity patterns of women and men with and without children. For both women and men, those with children spend more time than those without children on SNA productive activities as well as on unpaid domestic and care work. For men, the increase for those with children is greater in respect of SNA productive activities, whereas for women the increase is ten percentage points for unpaid domestic and care work as against three percentage points in respect of SNA production. Childless women and men have much more personal time than those with children, but childless women's personal time is only marginally more than that of men with children.

Table 11. Distribution of day by activity type, whether has children, and sex (percentage, n=3,481)

Activity type	Childless		One or more children	
	Female	Male	Female	Male
SNA production	5%	10%	8%	18%
Unpaid domestic & care services	23%	7%	33%	11%
Volunteer	1%	1%	1%	1%
Personal	71%	81%	59%	70%
Total	100%	100%	100%	100%

Table 12 shows the patterns of time use by educational level and sex. Across all educational levels, men tend to spend more time than women on SNA production, women spend more time than men on unpaid domestic and care work, and men tend to spend more time than women on personal activities. The gender differences in terms of leisure are largest for those with no education, and smallest for those with tertiary education.

Table 12. Distribution of day by activity type, educational level and sex (percentage, n=3,497)

Activity type	None		Primary		Secondary		Tertiary	
	Female	Male	Female	Male	Female	Male	Female	Male
SNA Production	10%	22%	6%	21%	5%	12%	5%	9%
Unpaid Domestic & Care	37%	11%	29%	8%	23%	8%	20%	9%
Volunteer	1%	2%	1%	2%	1%	1%	1%	2%
Personal	52%	66%	64%	69%	71%	78%	74%	80%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

For both women and men, the time spent on SNA production tends to decrease as education increases. The same pattern is found among women for unpaid domestic and care work. For men, those with no education tend to spend longer than others on unpaid domestic and care work, but there is little difference between men at the higher educational levels.

Table 13 shows the mean number of minutes per day that female and male respondents reported spending on each of four sub-categories of unpaid domestic and care work. Unlike most other tables, this table gives the total minutes reported, rather than adjusting so that all the activities sum to 24 hours (1,440 minutes). The table shows women spending more than two-thirds of the time they spend on unpaid domestic and care work on housework. In absolute terms, they spend more than seven hours a day on housework on an average day. For men, the most common activity is child care, where they report spending more than an hour on average. This must be contrasted with the more than two hours that women spend on child care per day. The gender difference is smallest for "other care" – which encompasses physical care for elderly, ill or disabled adults in the household, other family care activity, providing for household guests and visitors, and any other care activity except child care.

Table 13. Minutes per day spent on unpaid domestic and care work by sex (n=3,497)

Activity category	Female	Male
Child care	136	81
Other care	46	40
Housework	444	19
Other unpaid domestic services	58	28
Total	685	169

In summary, women in Afghanistan report spending approximately 11.4 hours doing unpaid domestic and care work compared to 2.8 hours reported by men. Out of the 11.4 hours, women spend 7.7 hours only on housework.

RECOMMENDATIONS

This paper describes the approach used in an exploratory national time-use study commissioned by UN Women in Afghanistan. It also reports on analysis of the data collected in the study. The paper highlights various aspects of the methodology that are not fully in line with a national time- use survey that would generate findings representative of the adult population of the country. Nevertheless, the analysis produces results and trends that one would expect to find in analyzing data from a national time-use survey. This latter finding suggests that through refining the approach, production of reliable, representative time use statistics for Afghanistan is eminently feasible.

The recommendations that arise include the following:

- **Mainstream time-use surveys**
  Mainstreaming TUS would mean that the survey would be included in the country's regular official data collections, and conducted by the national statistics agency. The TUS should be conducted using accepted international concepts, methods, classifications, and classifications, and ensure that the required training, supervision, and quality control are in place to produce quality data. The sample should be designed so as to be nationally representative of the age group covered, and weighted to produce time-use statistics that reflect the population as a whole. Finally, mainstreaming would mean that TUS data and findings would be used to inform government policies and programmes.

- **Calculate the value of the country's total production**
  The most widely used measure of economic activity, GDP, has been criticized for failing to account adequately for women's contribution to the economic and social achievements of countries. The reason for this criticism is that that GDP excludes the unpaid household production of services by women and men. In many countries it also excludes or under-counts unpaid production of goods, such as subsistence production.
  A TUS provides the data from which the value of all production – both paid and unpaid, and of both goods and services – can be calculated. This exercise will reveal the substantial contribution of women and rural people to the society and its development.

- **Collect and produce time-use estimates for all seasons of the year**
  The time-use data collection discussed in this paper was conducted in the winter months. In a country such as Afghanistan, where a substantial proportion of the adult population engages in agricultural activities, time-use patterns are likely to vary across the different seasons of the year. In order to capture a full picture of the use of time by Afghan women and men, a TUS should therefore be based on data collection that either happens throughout the year, or in tranches corresponding to each of the key agricultural seasons.

- **Consider the policy implications of the indicative findings**

  The findings of the exploratory study are indicative rather than necessarily representative of Afghanistan's population. Nevertheless, there are some broad patterns that are clear enough to serve as a guide for policy makers. In particular, the fact that women spend, on average, such a large proportion of their day on unpaid domestic and care work highlights the need for policy interventions that will help in lightening this load.

  Such interventions could include:

  - infrastructure initiatives that provide basic household services such as easily available water and electricity that reduce the time spent on cooking and cleaning and also facilitate home-based production of goods and services for the market;
  - initiatives to increase school attendance, which would not only enhance children's future contribution to the country and their families, but also lessen the time women spend on caring for children; and
  - adult literacy initiatives that increase the opportunities available to women who missed out on education during their childhood.

These and other interventions would, among others, free up women to engage more in paid productive activities. This would, in turn, assist in combatting the poverty of themselves and their families and increase their access to knowledge and finance and their agency.

REFERENCES

- Central Statistics Organization. (2015). National Strategy for Statistics.
- Central Statistics Organization, Ministry of Public Health and the DHS Program. (2017). Afghanistan Demographic and Health Survey 2015.
- Committee on the Elimination of Discrimination against Women. (10 March 2020). Concluding observations on the third periodic report of Afghanistan*
- Department of Economic and Social Affairs Statistics Division. (2005). Guide to Producing Statistics on Time Use: Measuring Paid and Unpaid Work. United Nations: New York.
- Hirway, I. (2008). Time Use Surveys: Concepts, Classifications and Related Issues.
- Population & Housing Census in Afghanistan. Accessed on 25 November 2020 at: http://www.oicstatcom.org/imgs/news/Image/831-s2-afghanistan-en.pdf. Author and date not specified.
- United Nations Educational, Scientific and Cultural Organization (2019). Enhancement of Literacy in Afghanistan (ELA) Programme. Retrieved from UNESCO: http://www.unesco.org/new/en/kabul/education/youth-and-adult-education/enhancement-of-literacy-in-afghanistan-iii/

APPENDIX: ACTIVITIES ASKED ABOUT QUESTIONNAIRE

SNA production
care for animals (breeding, medical treatment, grooming, shoeing, etc)
collect water, fruits or firewood
do any other business
do gardening
Farm
Fish
Hunt
involved in any other animal care related activity
involved in any trade activity
involved in construction activities
involved in forestry
involved in manufacturing activities
involved in mining (digging, quarrying etc)
involved in the storage and processing of agricultural products
make dung cakes
milk, collect milk
rear poultry (feeding, cleaning etc)
rear poultry (feeding, cleaning etc)
sell poultry or animal products (milk, yogurt, cheese, butter etc)
tend animals (cleaning, washing shed, feeding, watering, and preparation of feed)
Unpaid domestic and care work
care for a pet at home
care for children
clean your home
cook bread at home
do any other family care activity not mentioned above
do any other household care activity note mentioned above
do home construction and repair
iron clothes around the house
play, read or talk with children
prepare, make and serve food and beverages
provide for guests and visitors to household
shop for home
take physical care of elderly, sick and disabled house members
take your children to child-care
teach, help or reprimand children
travel for household care

wash textile/clothes
wash the dishes
water plants and do gardening around the house
Volunteer
any unpaid voluntary work
care for (such as friends, neighbors, relatives not in the same household)?
do favors for adults
travel for voluntary work
Personal activity
do any other leisure activity
go to any informal education institute (i.e. night schools)
listen to music/ radio
make any art
participate in any other social or cultural activity
participate in any sports and community functions
participate in social events such as weddings, funerals, birthdays
play video games
read
receive health-care
religious events such as ceremonies, practices
rest and relax
school, university, technical or vocational institution
serve as a spectator to social or cultural events such as sports, concerts etc
Sleep
socialize with friends and relatives
spend time on any other personal care activity not mentioned above
spend time on eating food and drinking
spend time on personal hygiene
study, do homework or prepare for school
travel for education
travel for personal care
travel related to media use
travel to or for any social or cultural activity
use computer and internet
watch television and movie
worship

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