Recognizing the burden of unpaid care work:

In Goa

A Dissertation Report for

Course code and Course Title: ECO 214D Dissertation

Credits: 8 credits

Submitted in partial fulfilment of Master's Degree

Master of Arts in Economics

by

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DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation report entitled, "Recognizing the burden of unpaid care work in Goa" is based on the results of investigations carried out by me in the Economics Disciplineat the Goa Business School, Goa University under the Supervision of Asst. Professor, AvinaKavthankar and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will be responsible for the correctness of observations or other findings given the dissertation.

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COMPLETION CERTIFICATE

This is to certify that the dissertation report "**Recognizing the burden of unpaid care work in Goa**" is a bona fide work carried out by **Miss Amanda Perpetua Fernandes** under my supervision in partial fulfilment of the requirements for the award of the degree of Master of Arts in the Discipline of Economics at the Goa Business School, Goa University.

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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to everyone whose support was essential in the completion of this dissertation. First and foremost, I would like to thank my research guide, Ms. Avina Kavthankar, Assistant Professor of Economics at Goa Business School, for her fervent efforts in guiding me throughout the course of this study. I am deeply grateful for her thoughtful advice and recommendation on this dissertation and for always patiently and enthusiastically assisting me in any way she could throughout the research project. Without her tenacious efforts, the goal of this project would not have been realized.

I would also like to extend my gratitude to the members of faculty of Goa Business School, Dr Pranab Mukhopadhyay (Vice Dean of Research at Goa Business School), Assistant Professor Heena Gaude (Programme director of Economics), Assistant Professor Avina Kavthankar, Assistant Professor Sumita Dutta, and Assistant Professor Aishwarya Dessai for their moral support and guidance.

I would also like to appreciate the encouragement and advice provided by Dr. P.K. Sudarsan.

I would also wish to convey my special thanks to Assistant Professor Yasser Hussain at MES College, for his unwavering help and support.

I also wish to acknowledge my family and friends for their immense support and motivation, without their help, none of this would have been possible. Last but not the least, I'm thankful to all the respondents who patiently answered the questionnaire thus providing me with the required information and to all those women who tirelessly contribute to the sustenance of society.

Amanda Perpetua Fernandes

May 2023

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CHAPTER 1: INTRODUCTION

The 2030 agenda for sustainable development is a universal call to action, adopted by 193 United Nations Member States, which includes 17 sustainable development goals (SDG) targeted at achieving social, environmental and economic prosperity. Due emphasis has been assigned towards achieving gender equality through equal access to resources and opportunities. This study addresses one of the 9 objectives under SDG 5, aimed at "achieving gender equality and empowering all women and girls" by recognizing and valuing unpaid work.

Unpaid care work better known as economy of care refers to domestic household chores such as such as cooking, washing dishes, collecting fuel, as well as caring for children, the ill and the elderly. Unfortunately, such types of work, that help sustain families and thus human societies, is predominantly carried out by women and is highly underestimated as women are viewed as "natural" care givers, due to the 'sticky' roles assigned by a highly patriarchal society. Changa, J. et.al (2020) have described Unpaid care work as work done by family members and friends (housework & caregiving) comprises a set of essential activities necessary for producing goods and services to sustain daily life and ensure social reproduction for the future.

The United Nations System of National Accounts of 1993 (UN-SNA), which sets a standard national accounting framework for the measurement and classification of economic activities, incorporates only the production of goods and services that can be marketed. Given that unpaid household service work is a nonmarket activity, such work remains statistically insignificant as it includes all non-SNA productive activities falling within the general production boundary but outside of the SNA production boundary and is excluded from conventional national income accounts such as GDP. Unpaid care work, therefore is included in the extended SNA activities which comprises of productive but non-economic activities, such as: household maintenance,

management and shopping for own household, childcare and other such activities. Early economist, Alfred Marshall in 1879 was the first to define "third person criterion" which largely guides the definition of unpaid household service work as "***all other services which one person may be hired to perform for another***", correspondingly economist Margaret Reid in her book "Economics of Household Production" asserted that "***If any activity is of such character that it might be delegated to a paid worker, then that activity shall be deemed productive***".

Feminist economists have argued that such unpaid household work contributes to economic welfare and ignoring these services introduces biases in various areas of economic analysis. Pigou (1920), for instance, justified his argument stating, "***If a man marries his housekeeper or his cook, the national dividend is diminished***". The most evident feature of unpaid work is that the burden of such work is largely shouldered by women, and compensation for the same is earned in terms of emotional reward rather than monetary wages, therefore essentializing such work. Furthermore, the incidence of unpaid work is disproportionately higher in developing countries than that of developed countries. According to a paper published by the United Nations Research Institute for Social Development UNRISD (2008) that analyzed time-use survey for 6 countries, "For all countries, the mean time spent on unpaid care work by women is more than twice that for men. The gender gap is most marked in India, where women spend nearly 10 times as much time on unpaid care work than men". In line with this finding, inadequate public provisioning of services such as healthcare, quality education etc., perpetuates a highly skewed burden of unpaid care work, that has layered implications for women, such as limited time for self-development, restricts their right to education, decent work, leisure, health and wellbeing. This paper therefore aims at recognizing the burden of unpaid care work in the district of South Goa.

Although such productive work ensures labor market participation by minimizing the cost that

would have otherwise been incurred on services rendered in the marketplace, a major characteristic is that it is non-remunerated, hence leading to market devaluation of women's efforts. Challenges that arise in valuation of unpaid care work, is that it poses measurement problems as it is done outside the confines of the market and fails to generate income by ways of marketability, similarly services rendered are sometimes intangible and difficult to quantify. Measurement problems also arises due to the prevalence of multitasking and distinction between household service work and leisure, for instance, some may consider gardening as a household chore while others may view it as leisure. The overall aim of this study is to quantify and assign an approximate monetary value to the unpaid work performed by rural and urban women in the area of study by market replacement method.

Further it is realized, a negative relationship exists between time devoted to unpaid care work and female labour force participation, whereby the greater is the inequality in distribution of care responsibilities between both genders, the greater the gender gap in labour force participation. Thus, restricting their participation in the workforce and highlighting the economic disadvantage and low opportunity cost. However, in the case of marginalized women, due to the increasing financial burden on households, women are forced to work in the informal sector under precarious work conditions in order to contribute to the family income. This in turn results in a

'Double burden' which further adds to their woes. A major emphasis of this study is to assess the degree to which the double burden is prevalent among working and non-working women in South Goa. This paper also attempts to highlight the differences in unpaid care work among women in urban and rural areas. As the structure of unpaid household works vary among rural and urban areas therefore influencing choice of work in the labour market, average time spent in household work, leisure availability and other such underlying factors. The recent COVID-19 pandemic is

also believed to have dramatically heightened unpaid care work, especially for women with children. The human development report (2019) advocates "that human development prospers not only when there are improvements in income, schooling, health and in the environment but also when a nurturing environment and high-quality care is provided for children". Therefore, it is pivotal to make visible the importance and burden of unpaid care work, to ensure sustainability of well-being and economic growth.

1.2. Objectives

1.To quantify the monetary value of unpaid care work using market replacement method for Goa.

2. To assess the degree to which the double burden is prevalent among working & non-working women.

3. To highlight the differences in unpaid care work among women in urban and rural areas.

1.3. Significance of the study

The significance of this research is to measure the economic contributions of domestic household services as well as care activities in Goa. This paper seeks to evaluate the varying incidence of unpaid care work in relation to their participation in the workforce as well as place of residence.

1. This study will be beneficial to measure the market valuation of unpaid care work and its contribution to the economy.
2. This research will provide an understanding of the reasons for the disproportionate burden

of care work and dual burden of responsibilities.

3. It will assist in the estimation of average time spent on unpaid care activities and serve as a baseline for policy initiatives.

1.4. Scope of the study

The present study tries to measure the economic valuation of women's unpaid work with respect to Goa and its indispensable contribution to the household economy. It also highlights the unequal sharing of care activities between both sexes and how it determines labor outcomes and limits their opportunities to enhance their capabilities. Present research work fails to incorporate the interaction between time-use and primary data studies. However, by means of secondary as well as primary data made available for the state of Goa, we can deconstruct the structure of unpaid household work and examine the unique features of such work, performed by women in urban and rural regions. This study also analyses the different sources of existing secondary data other than time use survey in understanding time allocation for various care activities. This research paper will also assist in depicting the various interlinkages and parameters of unpaid care work or the state of Goa.

1.5. Research Questions

1. What would be the estimated economic value of unpaid care work in Goa?
2. What would be the quantum of unpaid care work among women in urban and rural areas?
3. What is the degree to which the double burden among working women is greater than that of non-working women?

1.6. Hypothesis

Time spent on unpaid care work vary significantly among urban and rural women.

1.The prevalence of 'double burden' among working women is higher than that of women absent in the workforce.

2.Key parameters such as number of children, age of the respondent, relationship status, place of residence, education, participation in the workforce, husbands' occupation and monthly family income determines time spent in total unpaid care work according to the region.

1.7. Methodology

The present study is based on primary and secondary sources of data. The primary data required for the study was collected from women with the help of a persistent questionnaire. The total sample size for the primary survey consisted of 100 respondents. To ensure balanced representation of women belonging to urban and rural regions, 50 respondents from urban and rural regions, respectively were chosen as the sample under study. Data was collected by means of questionnaires and Microsoft word files. Due to the inability of google

forms to accommodate the structure of the questionnaire, Microsoft word was used as an effective substitute. The interview method with the help of a scheduled questionnaire was adopted and was considered highly effective for recording of responses. A conscious effort was made to acquire responses from 1 participant per household only. The villages of Majorda and Loutulim were selected as the rural region, for which data were collected from 25 respondents each. Correspondingly, for urban areas, the towns of Margoa and Cuncolim were decided with a sample size of 25 respectively.

In order to highlight the "dual burden" of unpaid work, 50 working and non-working participants were selected from urban and rural areas. As a form of convenience sampling, the study adopted the purposive and snowballing technique. Purposive sampling, also called judgmental sampling is a type of non-probability sampling technique in which units are selected because they have characteristics that you are looking for in your sample, in other words, units are selected "on purpose". While on the contrary, Snowball sampling is a technique whereby research participants assist researchers by nominating other potential participants to contribute to the specific study. Secondary data has been predominantly collected from Time-use survey report 2019, besides, various other research articles, reports and journals were referred to. The time use survey report 2019 was published by the Ministry of Statistics and Programme Implementation, Government of India which provides a measurement of the participation of men and women on paid and unpaid activities. The primary and the secondary data were analyzed using descriptive analysis presented with the aid of tables, charts, graphs and calculations.

The study has also used narrative writing to outline the nature of unpaid care work.

Additionally, for the valuation of unpaid domestic work, market replacement cost method has been applied, which refers to the market defined wage rate paid to a person who produces a similar kind of service. For the purpose of this study both the cost approaches; that is the generalist and the specialist are incorporated.

1.8. Limitation

1. The primary study is confined to only 4 villages and towns in Salcete Taluka and therefore fails to represent the entire South Goa district.
2. There is a possibility that the secondary data lacks accuracy in recording of responses from research participants.
3. Trouble accessing data from the official MOSPI website as data crucial for analysis in the study was incomplete and could not be accessed.
4. The responses collected from primary data may not be reliable as time allocation estimations is dependent on the assessment of respondents.
5. The presence of family members, acquaintances and other known persons may have influenced the respondents' responses.
6. This study fails to measure the prevalence of multitasking and ascertain the distinction between unpaid care work and leisure.
7. A detailed and in-depth study was not possible due to time constraints, as the project was time-bound.

1.9. Chapter Layout

Chapter 1: Introduction, objectives, significance, scope of the study, research questions, methodology, and limitations.

Chapter 2: Review of literature

Chapter 3: Evaluation of paid and unpaid household work in India using Time-use survey

Chapter 4: Capturing unpaid work in Goa

Chapter 5: Findings, conclusion and suggestions

CHAPTER 2:
Review of Literature

Chapter 2: LITERATURE OF REVIEW

2.1. Introduction

The review of relevant literature on unpaid care work is conducted to gain an understanding of the nature, patters and systematic analysis of care work. It also helps gain an understanding of the existing research by analysing previous research works, thus providing a suitable theoretical background to the study and reveal any gaps in existing literature. A thorough evaluation of the literature was conducted using Indian and International research. The literature chosen for the review was thematically divided under 4 heads: first, a review on the theoretical background of the character of unpaid work, second, a review on the accounting framework, third, a review on the data sources and fourth, a review of methodological approaches. Important and recent studies are critically reviewed and presented below.

2.2. Theoretical Background

The present study examines the theoretical framework of women's unpaid care work by analysing the distinct schools of thoughts of Marxist, classical and Feminist economists.

Across all societies the bulk of unpaid care work, Elson (1995) also referred to as the 'Economy of Care' is performed by women and despite their contributions such work is regarded with little or no economic or social importance and neglected not only by society in general but more tragically by economists themselves. The non-recognition of their economic contributions is a distortion of economic reality (Akpanuko & Thompson, 2015). This neglect is evident across virtually all schools of economics, whether neoclassical, political economy or Marxist (Budlender, 2008). Unequal distribution of household work is a product of sexual division of labour, which refers to the division of economic and social activities between the sexes and can be explained in three stages, i.e., "gender polarization", "gender freedom", and "gender integration" (Singh & Pattanaik, 2020). In the first stage (gender polarization) the division of labour is rigid, where paid work is assigned to men and unpaid work to women, as can be seen during the classical and neo-classical time periods. The second stage (gender freedom) comprises of women entering into paid work along with unpaid work. The third stage of gender integration constitutes the endeavour for integrating paid and unpaid work of both sexes. Both the Classical and Neo-classical economists have considered unpaid work not as an economic good or market good thereby keeping it outside the production frontier (Singh & Pattanaik, 2020).

Although Neo-classical and Marxist ideologies recognize the existence of domestic household care work, however, they fail to determine its role in the workforce and mainstream economics. Furthermore, the fundamental works entitled "The Unhappy Marriage of Marxism and Feminism: Toward a More Progressive Union" by Hartmann (1979) and "Exploitation Comes Home: A Critique of the Marxian Theory of Family Labour" by Folbre (1982) highlighted that Marxist analysis failed to consider women's unpaid work as a part of productive work and conveniently excluded it in the estimation of surplus values in the process of capital accumulation (Tamilarasi

N, 2017). Marxist economics did not consider the women's unpaid work as a part of production and work force participation (Swiebel 1999) and instead viewed women's unpaid work as 'reproductive work' rather than 'productive work'. Similarly, it was also stated that although Marx highlighted the role of labour in capitalist production process, he however failed to address the issue of women's domestic labour in the process of capital accumulation. Contrary to Marxist ideology, Neo-classical economists such as Ivan Illich (1981) in his empirical work entitled "Shadow Work" analysed the role of unpaid work and concluded women's unpaid work as indispensable complement in addition to the market-based wage labour.

Equivalently, yet another study under neo-classical economics entitled "Consumption and the Concept of the Household" by J.K. Galbraith (1974) regarded housewives as 'crypto-servant' in association with private or household production. It was during the 1970s that a feminist critique of Marxist and Neo-classical beliefs emerged that sought to overcome the patriarchal expectation of associating housework with women so as to keep their work unwaged (Tasnim, 2020). The campaign for wages for housework was founded in 1972 by renowned feminists, such as Mariarosa Dalla Costa who perceived housework as essential for the sustenance of capitalism, wherein the product of women's labour was to keep the "workers" in good working condition and yet not be paid for it, while the home was identical to that of a 'social factory'.

Additionally, (Tasnim, 2020) acclaimed philosophers Kant and Aristotle, through the portrayal of women as inferior to men, have indicated that women are best suited as homemakers due to the female physique and personality. (Das & Nayak, 2022) Other prominent feminist like Simon De Beauvoir criticized housework as being a torture like no other and with 'little affirmation of individuality'. The laxness on the part of economists to focus more on unpaid care work in relation

to micro level analysis (household level) rather than macro level analysis (National level) was addressed by feminist economist.

Additionally, Kuznets (1948), while compiling national income accounts isolated unpaid work outside the purview of national income, as it is part of "housewives' production" and hence outside the confines of the market economy. (Statistics Canada, 2022) a prominent way of determining the scope of total unpaid work, thereby assigning a definition to unpaid household work, which is widely accepted, is the 'third person' or 'market replacement' criterion. (Charmes, 2019) Alfred Marshall in 1879 was the first to define "third person criterion" which largely guides the definition of unpaid household service work as "all other services which one person may be hired to perform for another". (Suh et al., 2020) An alternative definition of third person criteria was given by Margaret Reid who defined work as an activity that one could pay another person to perform provided the following criterions are met: 1) If any activity is of such character that it might be delegated to a paid worker, then that activity shall be deemed productive. 2) Household production consists of those unpaid activities which are carried on, by and for the members, which activities might be replaced by market goods, or paid services. Not to mention economist Hawrylyshyn, who describes the third person criteria as "those economic services produced in the household and outside the market, but which could be produced by a third person hired on the market without changing their utility to the members of the household" (Statistics Canada, 2022).

2.3. Accounting Framework

The study analyses related literature on the incorporation of unpaid work in to national income and analyses the relationship of unpaid work to the economy at the aggregate level.

As has been noted by various studies (Yadav et al., 2021 & Antonopoulos, 2008) unpaid work entails a systemic transfer of hidden subsidies to the rest of the economy that are unseen, thereby imposing a systematic time-tax on women throughout their life cycle. (Eisener 1989, Ironmonger 1989, Goldschmidt- Clermont 1990 and Chadeau 1992) question and emphasis the invisibility of such 'hidden subsidies. Numerous empirical studies have highlighted the exploitation of women's domestic work due to the unrewarding nature of such work. (Kulshreshtha & Singh, 1996) in his study observes that, "Much of the work of women, which forms a major part of the household non-market production, goes unreported in the accounting framework of the System of National Accounts (SNA). This is partly because of convention and partly because the work which connotes human effort devoted to production of goods and services having utility but does not necessarily generate income by way of marketability and hence poses measurement problems".

Similar concerns have also been addressed in various other studies (Tamilarasi, 2017) (Antonopoulos, 2008,) (Kulshreshtha & Singh, 1996) (Kulshreshtha, 2016) (Charmes, 2019) (Guide on valuing unpaid household service work) (Statistics Canada, 2022) (Singh & Pattanaik, 2020) that points out conventional economic measures such as Gross Domestic Product (GDP), that are largely designed to measure the market economy and acts as an indicator of economic activity, fails to include the value of the household services, thus initiating advocacy for more nuanced economic measures that take into account issues such as the contribution of unpaid productive activities, like household work. Comparably, Walker and Gauger (1973) argued that standard labour statistics grossly understate the economic contribution of women to production as women perform about two thirds of all housework.

To document the contribution of unpaid work, new conceptual frameworks were developed. (Kulshreshtha & Singh, 1996) The System of National Accounts (SNA) provides a conceptual

framework that sets the international statistical standard for the measurement and classification of economic activities and consists of a coherent, consistent and integrated set of macro-economic accounts. (Kulshreshtha & Singh, 1996 & Kulshreshtha, 2016) The standard national accounting system which was first established in 1953 (SNA), provides a framework for reporting national income and product statistics. It was further revised to arrive at 1968 SNA, comprising of an elaborate system giving emphasis on consolidated set of accounts and Input-Output Transactions Tables (IOTT). Followed by the 1993 SNA which was even more sophisticated in design and included a comprehensive system harmonised with other statistical system. The most recent revision is the 2008 SNA, which is distinct due to its flexible character since it comprises of a satellite account where the contribution of housewives is considered in totality by extending the production boundary in the form of extended NDP. The study also assumed apportionment of NDP by gender is only possible when it is estimated through income approach and not production approach. (Antonopoulos, 2008) many studies have consistently shown that the primary focus of the 1993 (UN-SNA) is that some unpaid work activities are deemed as "economic work" and, considered to belong within the "SNA production boundary", while other unpaid work activities are classified as "non-economic." The 1993 accounting framework supports the inclusion and measurement of unpaid economic work in annual estimates of Gross Domestic Product (GDP). Other types of unpaid work are deemed by the SNA 1993 to be "noneconomic" and are relegated outside the SNA production boundary. Non-SNA unpaid work or work that fall "outside the SNA production boundary," consists of household maintenance, cleaning, washing, cooking, shopping, providing care for infants and children (active and passive care), care for the permanently ill or temporarily sick (as well as for older relatives and the disabled), and all volunteer work for community.

Unremunerated work of this kind is carried on, by and for the members and might be replaced by market goods, or paid services, if circumstances such as income, market conditions, and personal inclinations permit the service being delegated to someone outside the household group. Regardless of its critical role in the sustenance of society, unpaid household work is considered Non-System of National Accounts (SNA) or Extended SNA (ESNA) (Singh & Pattanaik, 2020). Therefore, unpaid care work is based on the definition of the non-SNA work in the System of National Accounts (SNA) in its 1993 and 2008 revisions. (Charmes, 2019) in his study titled "The Unpaid Care Work and Labour Market: An Analysis of Time Use Data" defined work as a generic term covering all activities said to be productive and as such falling within the "general production boundary". He further contends that the (SNA, 2008) production boundary is more restrictive and includes "all production actually destined for the market, whether for sale or barter" but it excludes all production of services for own final consumption within households."

(Charmes, 2019) finds that until 2013 there were no international statistical standards to define work in own-use provision of services or volunteer work, so that even when captured was not measured in any consistent way. The prominent shortcoming that can be noted in this context is that if the production boundary were extended to include the production of personal and domestic services by members of households for their own final consumption, all persons engaged in such activities would become self-employed, making unemployment virtually impossible to define. In response to such shortcomings, the 19th International Conference of Labour Statisticians (ICLS 2013) recognised "the need to revise and broaden the existing standards in order to enable better statistical measurement of participation of all persons in all forms of work. (Kulshrestha, 2016)

Numerous existing National Sample Surveys also (50th, 55th, 61st and 68th Rounds) depict the proportion of rural women engaged in household duties.

The 2008 SNA, is the latest international standard that seeks to incorporate the framework of SAM (Social Accounting Matrix) by including gender distinguished statistics and recommends some of the activities undertaken by women for example, carrying water for self-consumption and goods produced by the household and consumed, in the estimation of GDP. Further, all goods produced within the households, except for personal and domestic services produced for own final consumption are included within the production boundary of the system and if non-marketed, have to be evaluated at equivalent market prices. As an attempt to overcome the constrictive features of 2008 SNA it suggests that an alternate concept of GDP be elaborated which is based on an extended production boundary in satellite accounts which includes activities of household production of services for own use and their estimates. The three ways to construct a satellite account include- the net approach, the input approach and the output approach. The paper thus stresses on the need to revise and broaden the existing standards in order to facilitate better statistical measurement of participation in all forms of work, correspondingly it should also estimate the volume of work or labour input for national production accounts, as well as the contribution of all forms of work that add to the well-being of society (Charmes, 2019).

2.4. Secondary data Studies

In the following paragraphs an exposition of the various paradigms surrounding unpaid care work has been analysed using secondary sources, more specifically time use data.

According to (ILO Regional Office for Asia & the Pacific & United Nations Development Programme, 2018) It was observed that, in the early 1900s time-use statistics were first produced with the primary objective of estimating the long working days and short leisure time of industrial workers, thereby demanding reduction in working hours and reporting of the living conditions of working-class families. During the 1960s and 1970s, besides using such data in planning for transportation and social policies, broadcasting companies also became increasingly interested in TUS data to understand how people spend their leisure time. Since the rise of the women's movement in the mid-1970s the data has proven essential in estimating the contribution of women's unpaid work to national well-being. More recently, the data has been useful for understanding paid (SNA) and unpaid (non-SNA) work.

The main impetus of time-use statistics is that it gives visibility to all forms of work, remunerated and non-remunerated, helps explain the dynamics of intra-household sharing and gender inequalities and enables the valuation of unpaid non-SNA work, thus, providing a rich database on a range of socioeconomic concerns in developing countries. (Antonopoulos, 2008) opined "time-use survey data and the construction of parallel satellite accounts have made the contribution of household production transparent". Despite the critical use of time-use statistics for designing policies for inclusive growth, the concepts and methods for conducting time-use surveys, are not harmonized into national statistical systems, especially for developing countries that face specific constraints. Therefore, developing countries have formulated their own methods and modified classifications of activities from the guidance produced by the United Nations.

As of 2015, It is indicated that while out of 193 member countries of the United Nations, only about 130 of them have conducted at least one (small or big) time-use survey to date. Admittedly, far less countries have conducted such a survey nationally. Majority of the countries that have

conducted national time-use surveys such as India, Bangladesh, Indonesia, Nepal, Thailand, Mongolia and Malaysia, initially began with a small-scale exercise covering a small number of villages, households and one or two urban centres. In the process they encountered various constraints but were able to transition into conducting national TUS using a variety of methods, activity classifications and investigated specific issues, sectors or regions.

Furthermore, national time-use surveys are classified as: non-independent/modular surveys (conducted as part (module) of a national survey) and stand-alone surveys. Stand-alone time-use surveys collect information on use of time by a reference population and comprises of three components: a) A background schedule that gathers data for each responding household/individual b) Context variables, which yields details on the context of the recorded activities and c) The time-use schedule (diary) that collects information for a 24-hour period. Among the 6 countries (Bangladesh, China, India, Mongolia, Pakistan and Thailand) that have conducted surveys using 24-hour time diaries, Bangladesh, China and India conducted large surveys with a representative sample and for that reason were treated here as national surveys.

The shortcomings of this approach were addressed by designing alternative approaches: such as linking the use of time to major common events (such as school) to help in the recollection of activities by respondents, utilizing larger time slots for instance: replacing a 30-minute to a one-hour time slot and questioning respondents to report the time spent on a list of activities based on stylized questions.

(Yadav et al., 2021 & ILO Regional Office for Asia & the Pacific & United Nations Development Programme, 2018) Time-use surveys in India can be dated back to mid-1970s, whereby a number of researchers conducted a series of small-scale time-use surveys (1976–77, 1980, 1987 & 1990–91). During the course of the year 1983, the national council of applied economic research

conducted a time allocation study on a sub-sample of employment and unemployment survey (38th Round of NSSO). Additionally, as part of the 'Righting the Wrongs program' (1990-91), the FAO conducted a small survey. Further, in 1996 a pilot survey on time-use data was conducted by the Directorate of Economics & Statistics led by the Government of Tamil Nadu. During the years 1998–99, the Central Statistical Organization (CSO, 2000), instituted the first ever national time-use survey comprising of Six states viz., Kerala, Meghalaya, Haryana, Madhya Pradesh, Orissa and Gujarat, that was representative of the entire country and was conducted in all four seasons of the year, covering a total of 18,648 households and 77,593 people (Hirway, 2010).

(Tasnim, 2020) The CSO survey collected data from each village within 9 days, with an activity classification of 176 activities (classification of activities differed from that provided by UNSD), incorporated into 9 major groups and 16 two-digit subgroups. While the first two days were devoted to household selection and house listing, the third day was used to collect information about the type of days for individuals in selected households. During the reference week, data was secured for any one of the normal days and a weekly variant day, one day recall method was used to archive data. (Tasnim, 2020) however, considers the quality of data to be of questionable nature as information had to be extracted from a large number of respondents on a particular day. The survey followed the stylized interview approach, through which information was collected through three sets of schedules: individual characteristics, household characteristics and the time disposition of selected individuals. The survey aimed to study the gender discrimination in household activities based on various background characteristics such as age, sex, place of residence, level of education etc., and to evaluate the weekly average time spent in different types of activities. (Tasnim, 2020) The survey results revealed that regardless of the interstate difference, the proportion of unpaid care work by across both genders differed significantly.

. In 2006, Indira Hirway and Jacques Charmes depicted how a TUS can provide improved estimates on women participation in the workforce by comparing the 1999–2000 employment–unemployment survey of the National Sample Survey Organization (2000) and the 1998–99 pilot Indian TUS conducted by the Government of India (2000).

(ILO Regional Office for Asia & the Pacific & United Nations Development Programme, 2018) The UNSD is authorized to develop globally accepted concepts and methods for conducting the surveys. It is also mandated to assign an international classification of activities that meets the needs of all countries. Recent version of ICATUS (International classification of activities for time-use statistics) 2016, was designed to be consistent with the standard definition of productive status of activities in the SNA 2008, is characterized as "a three-level hierarchical classification of all possible activities, composed of major divisions, undertaken by the general population during the 24 hours in a day." Notwithstanding such classifications, India highlighted one key failure by ICATUS (International classification for time-use statistics) 1997 related to the first three groups. Whereby the first group was concerned with capturing formal work, the second and the third groups were required to obtain data on "informal work" in the primary as well as non-primary sectors. The inability of the first 3 groups to describe formality or informality of activities, led India, headed by the NSO to revise the SNA groups to a) primary production activities, b) secondary production activities (industry and construction) and c) territory economic activities (trade, business and services).

In the article "Missing labour force: an explanation" (Hirway, 2012) explains the need of complementing NSSO survey data with Time Use (TU) data, due to the shortcomings of NSSO surveys, such as the inability to estimate the labor force correctly due to its classification of

categories, whereby a large number of women remain missing from the labor force, as they are treated as “non-workers”.

(Charmes, 2019) observed that time-use surveys and statistics have gained importance among policy makers for their usefulness in measuring dimensions of human well-being. Despite its significance, the recognition of their utility, time-use surveys are not yet integrated into national statistical systems. According to the study, the 19th International Conference of Labour Statisticians, adopted the Resolution concerning statistics of work and referred to time-use surveys as the main source of statistics on participation and time spent in own-use production work and volunteer work for purposes of individual, household and macroeconomic level analyses. Similarly, it should be noted that various other secondary sources of data are also used in the process of assigning value to unpaid care work, such as a study conducted by (Singh & Pattanaik, 2020) the data from various sources both at the micro and macro levels were utilized in this study. The National Sample Survey Office (NSSO) conducts a nationwide survey on the key indicators of such as workforce participation rate according to the age group, level of schooling, gender perspective, unemployment rate, wages of employees, the extent of domestic duty, etc. The NSSO (1997, 2000, 2007, 2014) survey focused on the various unpaid activities, wherein mostly women are engaged. (Antonopoulos, 2008) noted that time-use surveys are expected to net the informal workers adequately. (ILO) study emphasized the prevalence of certain factors that must be considered when determining the number of households for a time-use survey: It is important that the household sample is drawn systematically using multi-stage stratified random sampling techniques. A geographical cluster approach is doable to reduce sampling errors as well as keeping the sample size manageable. Ideally, a time-use survey should represent a full 12-month period. The report also mentions that a seven-day diary can give a fuller picture of a person’s activity

pattern during a week. In the context of flexible timings in the labour market, these variations could be significant for workers also. Various studies have been undertaken with the help of time use data, which provides a deeper insight on the critical analysis of unpaid work.

For instance, a recent study conducted by (Ferrant et al., 2014) uses time use data to analyses the impact of gender gaps in time devoted to unpaid care activities on gender gaps. The study uses time use data and offers an important snapshot of how gender roles shape the division of labour within a household and its impending effects on labour outcomes, labour participation, wages and job quality. One of the main findings, depict that, higher inequalities in unpaid care work, leads to higher inequalities in labour force participation, where the amount of time devoted to unpaid care work is negatively correlated with female labour force participation and gender gaps in hourly wages. It can also result in occupational downgrading and participation in part-time or vulnerable employment in the informal sector.

2.5. Primary Data Studies

In this section 5 core studies highlighting the allocation of time for unpaid work are selected for review.

(Das & Nayak, 2022) In his study estimated the value of unpaid domestic work of women in the state of Assam, India. The study collected micro-level primary data from 400 workers by means of time use survey method, from four rural and urban districts depicting highest and lowest literacy rates. The value of unpaid work at the individual level was computed by multiplying the time spent on unpaid work with an appropriate wage rate under the input method. The analysis examined how men and women from different caste, age groups, religions, places of residence, etc., allocate their working hours for various activities. The study concludes that there is a wide variation in the value

of unpaid domestic work under different categories. Further, it also reveals that the participation of women in the labour market is influenced by their educational attainment, whereby it was observed that women with post-graduate degrees spent fewer hours on household activities as compared to those with primary-level of education. (Akpanuko & Thompson, 2015) study aimed to identify the work done by housewives in Nigeria by estimating the monetary value of their work. The study used a cross-sectional survey design with a combination of quantitative and qualitative methodologies. The sample consisted of men and women, with 25 urban and 25 rural men and 75 urban and 75 rural women. The study found that a typical day in a woman's life in Nigeria starts at about 5 a.m. and ends after 10 p.m., with women spending six to eight hours per day on paid activities. Additionally, the study also revealed that while a quarter of the husbands helped their spouses in domestic tasks, most men and women felt that household work is the responsibility of women. The study estimated the average value of one task for rural women being (Naira) N1,050 per month and for urban women being N1,722. By multiplying those figures by 22 tasks a monthly figure of N23,100 and N37,888 for rural and urban women is drawn respectively. (Yadav et al., 2021) estimated the valuation of paid and unpaid household activities of rural women of working and non-working women in Gazipur district of Uttar Pradesh by employing the input method, more specifically the market replacement cost method. The author finds that the total average time spent on unpaid SNA and Extended SNA activities by non-working women is almost double the time spent by working women. Further, it was noted that the daily wages for Extended SNA for a non-working woman is about 39.57 per cent higher than a working woman under market replacement specialist approach. Thus, it was determined that the valuation of Extended SNA was Rs.122.17 daily and Rs. 3665.1 monthly for a working woman, however for a non-working woman the value was observed at Rs. 170.51 daily and Rs. 5115.3 monthly respectively, under the specialist

approach. (Aara, 2016) The primary-data based study analysed the quantification domestic work by housewives and working women in Amritsar. Primary data was collected from 100 women (60 housewives and 40 working women). The study adopted both purposive and snowball sampling techniques and in order to assign an approximate economic value to unpaid work replacement cost method had been applied. For the purpose of assigning a wage, housewives and working women were separated and then a list of various tasks performed by both was prepared. Subsequently, a market wage was assigned for the individual tasks performed which helped estimate the total value of the unpaid work. The average value of unpaid domestic work performed by both housewives as well as working women in the study area amounted to approximately Rs 32,388 per month. (Tamilarasi N, 2017) provides an insight on the time use pattern, existing structure of unpaid work and leisure time availability between urban and rural women with reference to Villupuram District, Tamil Nadu State. The study found that women's economic contributions to household income amounted to Rs. 3625 on average, with urban and rural women contributing Rs. 4049 and Rs. 3201, respectively. Due to factors such as educational attainment, income sources and expenditure patterns the economic valuation of women's unpaid work is observed to be higher in urban areas.

2.6. Methodological Approaches

2.6.1. Valuation Methods

In this section, studies related to Economic Valuation of Women’s Unpaid work are reviewed. Based on the methodology adopted, the monetary value of unpaid care is derived which provides an estimate of the time spent on unpaid care work.

(*Estimating the Economic Value of Unpaid Household Work in Canada, 2015 to 2019*, 2015) In their studies reveal that estimating the value of unpaid household work is challenging as there are no directly observable prices or monetary values to assign to the activities performed within the household. This poses a major dilemma as to which valuation method to use when estimating the value of unpaid household work as various methods are available. (Hirway, 2005; Antonopoulos, 2008) Valuation of unpaid work can be broadly classified into three categories, namely, the *input method* whereby the time input in unpaid work is valued by multiplying it with an appropriate wage rate. Three types of wages to estimate the value of unpaid household work include *specialized wage rate, generalized wage rate, and opportunity co*st. The second approach refers to the *output approach*. According to this method, unpaid work is presented in output terms for instance (number of meals prepared), and is estimated by multiplying the output produced with market price. The third category includes national accounts of household economy, which is presented in the form of Satellite National Time Accounts and depicts how households allocate time between paid work, unpaid work, and leisure.

(Abdel-Ghany & Sharpe, 1996) A study was conducted to examine the valuation of household production time of American full-time homemakers which estimated the value of household production time by multiplying the number of hours spent in household production by the market wage rate. However, Due to challenges that arise in assigning a wage rate for individuals outside of the workforce, the study therefore provides four variants of the opportunity cost approach, which includes Imputed wage, potential wage, Heckman's two-stage reservation wage and Kidd's reservation wage approach. The results of the study indicate that the opportunity cost approach suffers from key limitations. One such limitation is that the opportunity cost reflects one's own

wage only since it is used to estimate household production time of the homemaker rather than the value of the household production itself.

Further, (Kulshreshtha, 2016) maintains that the opportunity cost approach has been used in different ways to estimate the value of unpaid household work. Nordhaus-Tobin (1972) made use of the wages of female earners as a proxy for the opportunity cost of unpaid household work. In relation to India, followed by the approach presented by Mukherjee (1985) which estimated the opportunity cost using two alternatives, i.e.; earning per worker (national average) and earning per worker in agriculture, Kulshreshtha and Singh (1996) estimated the value of the service of housewives at 1980-81 prices by using the average earnings per worker and the number of married women in the reproducible age group.

Subsequently, the most widely used valuation technique is the replacement cost, which reflects the value of unpaid household activities had they been performed in the market by hiring someone to complete these activities. The work performed is then valued at the average wage rates of equivalent occupations in the market. 2 general approaches are employed, the first approach is where the wage rate of a general laborer or service provider is used and the specialist approach is where the wage rates for specific occupations related to the household activities being performed are used (Estimating the Economic Value of Unpaid Household Work in Canada, 2015 to 2019, 2015). In addition to the existing methodologies , (Akpanuko & Thompson, 2015) proposed yet another method, formally known as the 'Pay Equity Method' which allows for inclusion of the management and counselling aspects of a homemaker.

(Akpanuko & Thompson, 2015) In his study titled 'Defining and Measuring the Unrecognized Income of the Housewife: A Journey towards Hope and Happiness', which focused on estimating a monetary value of work performed by housewives and hence provided a model for valuation of

their contribution to national development. Using census data, the study assigned a monetary value of $176.7 per month on the basis of estimates of payments made for those tasks. Correspondingly, (Estimating the Economic Value of Unpaid Household Work in Canada, 2015 to 2019, 2015) a study inclined towards estimating the economic value of unpaid household work in Canada, revealed a monetary value ranging between $516.9 billion and $860.2 billion in 2019. Which further amounts to around 37.2% of Canada's nominal gross domestic product, which is greater than the contribution of all the manufacturing, wholesale and retail industries combined. Likewise (Suh et al., 2020) based on the findings of a study titled 'Valuing unpaid care work in Bhutan' which applied the replacement cost approach, by employing both the generalist and specialist wages, revealed that unpaid care work in Bhutan has a total annual value of Nu23.51 billion, which if measured using a "specialist" wage was equivalent to 16% of GDP and 10% of GDP if the generalist wage approach was applied.

Economists however have expressed concerns regarding the choice of wage rate to be employed. (Das & Nayak, 2022) in their study assert that there is no fixed rule to choose a particular wage rate and is therefore solely dependent on the needs of the study. Some studies make use of both the average wage rate and minimum wage rate. In order to examine the variation of values of domestic work, three different types of wages per day can be used (1) minimum wage, (2) average local wage, and (3) Average All-India wage.

(Antonopoulos, 2008) Elucidated the conceptual and methodological problems in the valuation of unpaid domestic services: (1) Domestic services are typically performed in a non-competitive domain due to which it is not always valid to use market prices to value these activities; (2) As the same work can be done in different time periods the concept of time in the unpaid domestic sector

is elastic and (3) As these activities are never marketed many domestic services fail to have a market prices available for valuation.

2.6.2. Statistical Models

(Tamilarasi N, 2017) portrays the major outcomes of testing of framed hypotheses and incorporation of hypotheses results. For the first hypothesis, a Two-way Multivariate Analysis of Variance (MANOVA) was used to depict the variation in patterns and time spent on unpaid work across different family and economic statuses. The second hypothesis tested the factors that determine leisure time availability in the surveyed households using a Multiple Linear Regression Model. The third hypothesis examined the variation in monetary value of various components of unpaid work between rural and urban regions. Lastly, the fourth hypothesis that investigated the variation in the unaccounted economic contribution of women to household income through unpaid work, utilised One-way ANOVA, which compared the aggregate monetary value of women's unpaid work across different regions.

(Budlender, 2008) This paper provides a summary and comparison of findings from an analysis of time use data from six different countries, namely Argentina, Nicaragua, India, the Republic of Korea, South Africa, and Tanzania. It focuses on the quantitative aspects of unpaid care provided by individuals within households. This paper makes visible gender-related patterns in each country that is derived from sex-disaggregated data tables. Further, the paper also establishes the care dependency ratio as an indicator of care demand. It also presents a summary of results of Tobit estimations. Tobit estimations helps understand the factors that influence the amount of care undertaken, especially in situations where there are upper and/or lower limits on the dependent

variable (minutes of time). Lastly the paper also discusses the various approaches to assigning value to unpaid care work, and compares the results with a range of macroeconomic indicators.

Contrastingly (Hammer, 2012) in his study uses Austrian time use survey data (1992 and 2008) to analyse the changes in the time use of men and women for housework and childcare activities. Several statistical models such as the linear model, the Tobit model for censored data as well as generalized linear models with a negative binomial and a Poisson gamma distribution as random components were utilized and compared for the purpose of the study. However, since both the linear and the Tobit model assume homoscedasticity which is common in time use data, therefore the generalized linear model with a Poisson-gamma random component was considered as the most appropriate model for analysing time use data. A related perspective is also presented by (Stewart) who contends that the Tobit model is not appropriate for time-diary data when interested in long-run time use, as the marginal effects using Tobit are biased and the bias increases with the fraction of zero observations in the data. He also asserted that, when using time-diary data, researchers should be cautious about interpreting statistics such as medians and variances and day-to-day variation in time use variables must be taken into account when they are used as explanatory variables. It also suggests that the OLS model generates unbiased estimates, regardless of the fraction of zeros present in the data.

(Miller, 2021) In his study titled "Opportunity costs of unpaid caregiving: Evidence from panel time diaries" examines the relationship between unpaid caregiving by older Americans and time allocation with respect to labour supply, home production, leisure, and personal care with the help of panel time diaries. In an attempt to control for time-invariant heterogeneity and identify gender differences in the impact of caregiving on time use patterns the findings of the study reveal that older caregivers reported reduced time allocated to each domain, with men showing stronger

declines in time devoted to home production and women experiencing a stronger decline in personal care and labour supply. Further, gendered differences in time use patterns are more pronounced with respect to intensive and non-spousal care, which suggests that time-cost differentials may be may be responsible for observed gender gaps in health and labour market outcomes among unpaid caregivers. (Hertog et al., n.d.) This paper offers an insight on the first estimates of the likelihood of automation of different domestic work activities. These findings suggest that automation technologies have the potential to significantly reduce the amount of time spent on unpaid work, particularly housework, in highly developed countries such as the UK and Japan. On the basis of 3 sets of automation scores developed for paid work occupations to similar domestic work tasks by Frey and Osborne (2017) alongside other researchers, future time use patterns can be estimated by applying automation probabilities to existing time use data. This could have positive implications for gender equality in the labour market, as it could enable women to increase their labour force participation rates by reducing total time spent on unpaid work by 50-60% in both Japan and the UK.

2.7. Research Gap

From the review of literature, it is observed that very few studies addressing unpaid care work in Goa have been conducted. Further we fail to come across any such study that aims to assign a monetary value highlighting unpaid care work burden in Goa. Integration of primary and secondary data for the study of unpaid care work is also limited.

Chapter 3: Evaluation of paid and unpaid household work in India

(Time-use survey report)

Chapter 3: Evaluation of paid and unpaid household work in India (Time-use survey report)

3.1. Introduction

This chapter provides an overview of the Time use survey report 2019 and structure of accounting framework of United Nations system of national accounts. The distribution of time spent on SNA, E- SNA and non-SNA activities in a day on an average per person for India is presented separately depicting the variation in unpaid care work for men and women as well as portraying the differences in unpaid care work for women belonging to urban and rural areas. This chapter also comprises of charts depicting the percentage of persons and average time spent on unpaid domestic services for households' members and the distribution of total time in a day per person for different

activities by women and men. Similarly, the findings from the time use survey report for the state of Goa, is depicted by the distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person for Goa and is presented separately depicting the variation in unpaid care work for men and women and women belonging to urban and rural areas.

3.2. Time-use survey India

The "Time Use Survey" (TUS) is the first survey of its kind conducted by the National Statistical Office (NSO). The survey has been conducted during the period January 2019 to December 2019. This survey was spread over 9,945 First Stage Units (5,947 villages and 3,998 urban blocks). It covered 1,38,799 households (rural: 82,897 and urban: 55,902).

Information on time use was collected from each member of age 6 years and above, of the selected households 4,47,250 (rural: 2,73,195 and urban:1,74,055) were surveyed. The survey covered the whole of the Indian Union except the villages in Andaman and Nicobar Islands which were difficult to access. Data on time use was collected through personal interview method. Information on time use was collected covering a period of 24 hours starting from 4:00 A.M. on the day before the date of interview to 4:00 A.M. on the day of interview.

The results presented on time use are for persons of age 6 years and above. Estimates of time use per day in different activities are presented considering the participants in different activities. Some estimates of time use per day are also presented considering all persons irrespective of their participation in activities to understand the distribution of total time of 1440 minutes available for

each person in a day in different activities. In the Highlights, the results have been presented considering all the activities in the time slots instead of the major activity only.

Participation rate in a day in any activity is defined as the percentage of persons performing that activity during the 24 hours of the reference period.

Participation rate in activity

$$\text{“A”} = \frac{number\ of\ persons\ participating\ in\ activity\ 'A'}{total\ number\ of\ persons} * 100$$

Estimates of average time spent in a day for any activity per participant is calculated by considering those who participated in the activity. Estimates of average time spent in a day in different activities derived by considering only the participants in the activities will not add up to 1440 minutes of the day. These estimates are referred to as average time spent in a day per participant.

Average time spent per participant in activity “A”

$$= \frac{total\ time\ spent\ by\ the\ participants\ in\ activity\ 'A'}{total\ number\ of\ persons\ participating\ in\ activity\ 'A'}$$

Estimates of average time spent in a day for any activity per person is calculated by considering all the persons irrespective of whether they participated in the activity or not. By this approach, distribution of total time of 1440 minutes of a day per person in different activities can be derived and percentage share of the different activities in total time of 1440 minutes of a day can be calculated. These estimates are referred to as average time spent in a day per person.

Average time spent per person in activity “A”

$$= \frac{\textit{total time spent by the participants in activity 'A'}}{\textit{total number of person}}$$

3.2.1. Accounting framework of the United Nations System of National Accounts (UN-SNA) 1993

The standard national accounting system which was first established in 1953 (SNA), provides a framework for reporting national income and product statistics. It was further revised to arrive at 1968 SNA, comprising of an elaborate system giving emphasis on consolidated set of accounts and Input-Output Transactions Tables (IOTT). Followed by the 1993 SNA which was even more sophisticated in design and included a comprehensive system harmonised with other statistical system. The 2008 SNA, is the latest international standard that seeks to incorporate the framework of SAM (Social Accounting Matrix) by including gender distinguished statistics and recommends some of the activities undertaken by women for example, carrying water for self-consumption and goods produced by the household and consumed, in the estimation of GDP.

Table No. 3.2.1. Accounting framework of the United Nations System of National Accounts (1993)

SI. No	Category	Description	Activity classification
1.	SNA Activities	Productive and economic activities that fall within the production boundary of the 1993 UN-SNA.	Primary production activities
			Secondary activities

			Trade, business & services
2.	Extended SNA	Productive but non-economic activities that fall within the general production boundary of the UNSNA	Household maintenance, management and shopping for own households
			Care for children, the sick, elderly and disabled for own household
			Community services and help to other households
3.	Non-SNA Activities	Non-productive activities which fall outside the SNA and non-SNA and which cannot be delegated to anybody else.	Learning
			Social and cultural activities, mass media etc.
			Personal care and self-maintenance

Source: Time use survey report 2019

The above table depicts the accounting framework of the United Nations system of national accounts .It represents a classification of SNA (paid) economic and productive activities that fall within the production boundary, Extended SNA that includes; productive but non-economic activities that fall within the general production boundary and lastly the non-SNA activities that

comprises of non-productive activities that fall outside the SNA and Non-SNA and therefore cannot be delegated to a third person.

Unpaid care work is categorised as Extended SNA activities as it includes Household maintenance, management and shopping for own households, care for children, the sick, elderly and disabled for own household, Community services and help to other households. As mentioned above, such unpaid care works is isolated from the production boundary and treated as non-economic activities but is incorporated in the general production boundary.

3.2.2. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female) for India

Table No. 3.2.2. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female)

Distribution of the time spent on SNA, Extended SNA & Non-SNA activities in a day on an average per person (Male/female) for India.					
Category	Major activities	Male		Female	
		Average time spent (minutes)	Average time spent (%)	Average time spent (minutes)	Average time spent (%)
1. SNA	Employment & related activities	291	20.19	84	5.82
	Production of goods for own final use				
2.Extended SNA	Unpaid domestic services for household members	39	2.70	282	19.56

	Unpaid caregiving services for household members				
	Unpaid volunteer, trainee and other unpaid work				
3.non-SNA	Learning	1,111	77.09	1,075	74.60
	Socializing and communication, community participation and religious practice				
	Culture, leisure, mass-media and sports practices				
	Self-care and maintenance				
Total:		1,441	99.98	1,441	99.98

Source: Time use survey report (Author's calculation)

For the purpose of this study, time use survey report classification of activities is identified and categorised into classifications provided by UN-SNA 1993. More specifically employment & related activities and production of goods for own final use is categorised as SNA, while unpaid domestic services for household members, unpaid caregiving services for household members and unpaid volunteer, trainee and other unpaid work falls under the extended SNA section. Simultaneously, non- SNA classification is inclusive of activities such as learning socializing and

communication; community participation and religious practice; culture, leisure, mass-media and sports practices; self-care and maintenance.

The above table depicts Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female). It is observed that the average time spent on SNA activities is 20.19% for men and 5.82% for women, which reflects the sharp contrast of both genders present in the workforce. Similarly, the average time spent on extended SNA activities is 2.70% for men and 19.56% for women. As extended SNA activities is inclusive of unpaid care work, a wide gap in average time spent depicts the differences in unequal sharing of unpaid care work burden. Correspondingly, 77.09% of men spend their average time on non-SNA activities, such as leisure, women, however spend much lesser time that is 74.60% on such activities.

3.2.3. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Urban-Rural) for India

Table No. 3.2.3. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Urban-rural)

Distribution of the time spent on SNA, Extended SNA & non-SNA activities in a day on an average per person (female- Rural/ Urban) in India.					
Category	Major activities	Urban		Rural	
		Average time spent (In minutes)	Average time spent (%)	Average time spent (In minutes)	Average time spent (%)
1.SNA	Employment and related activities	67	4.65	92	6.38
	Production of goods for own final				

	use				
2.Extended SNA	Unpaid domestic services for household members	270	18.75	286	19.86
	Unpaid caregiving services for household members				
	Unpaid volunteer, trainee and other unpaid work				
3.non-SNA	Learning	1,103	76.59	1,062	73.75
	Socializing and communication, community participation and religious practice				
	Culture, leisure, mass-media and sports practices				
	Self-care and maintenance				
Total:		1,440	99.99	1,440	99.99

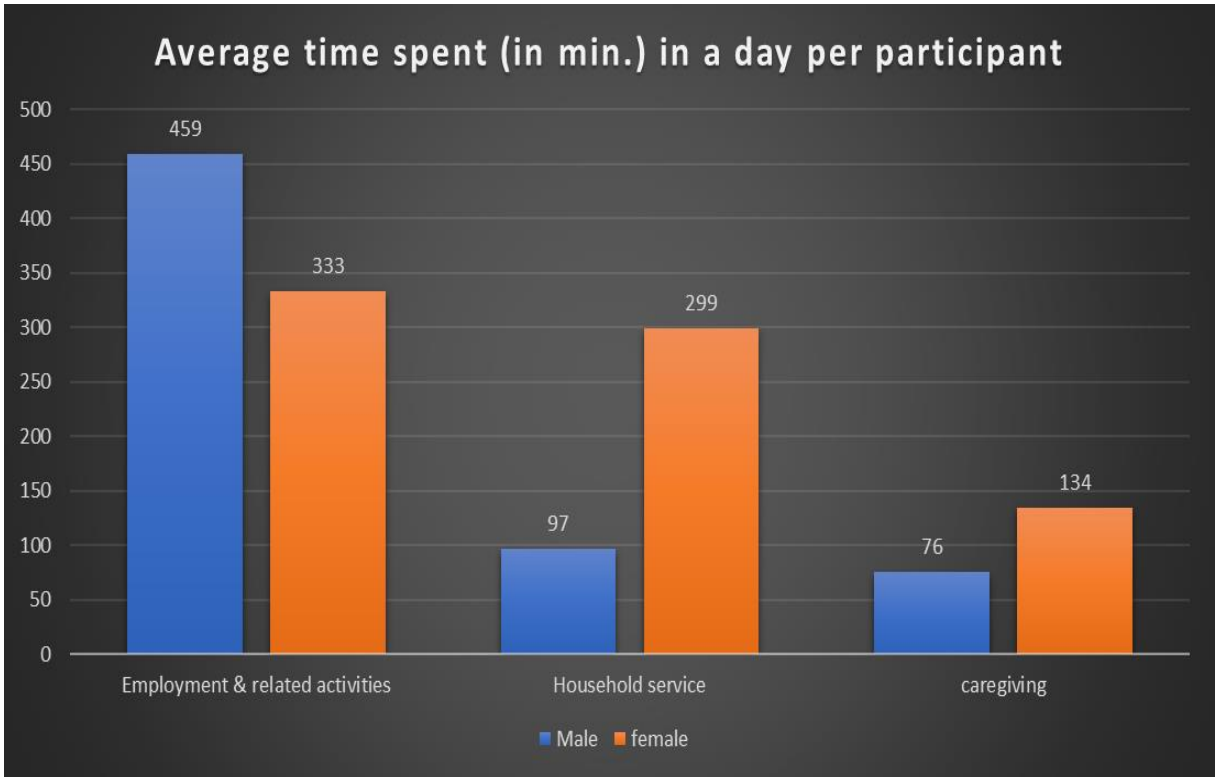
Source: Time use survey report (Author's calculation)

The above table represents the Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person by women belonging to urban and Rural areas. It highlights the differences in participation of various specific activities depending on the area.

For instance, it is noted that while 4.65% of women in urban areas spend their time in SNA activities such as employment, on the other hand 6.38% of women in rural areas spend relatively higher amount of time in the same activity, this difference could be explained by a number of reasons, however, rural areas are generally categorized by low levels of income and prevalence of poverty which forces women to participate in the workforce, at low pay, long working hours and poor working conditions.

It is also observed that the average time spent of women in urban areas to perform extended SNA activities is calculated to be 18.75%. Conversely, the average time spent by women in rural areas is 19.86%, thereby exhibiting minor variations.

Women in Urban regions spend an average time of 76.59% on non-SNA activities, while rural women spend only 73.75% of time engaging in such activities. In other words, due to access to better education, job opportunities, standard of living, ownership of key assets, public transportation and various other amenities which is normally associated with urban areas, leads to increased time in self-development or leisure availability.



3.2.4. Percentage of persons and average time spent (minutes) on unpaid domestic services for household members.

Source: TUS Report, 2019

Table No. 3.2.4. Percentage of persons and average time spent (minutes) on unpaid domestic services for household members

This chart represents the average time spent (in minutes) in employment and related activities, household service and caregiving activities in a day per participant. It portrays how gender inequality affects labour force participation, unpaid care work and caregiving activities. It is recognized that higher is the inequality in distribution of care responsibilities between women

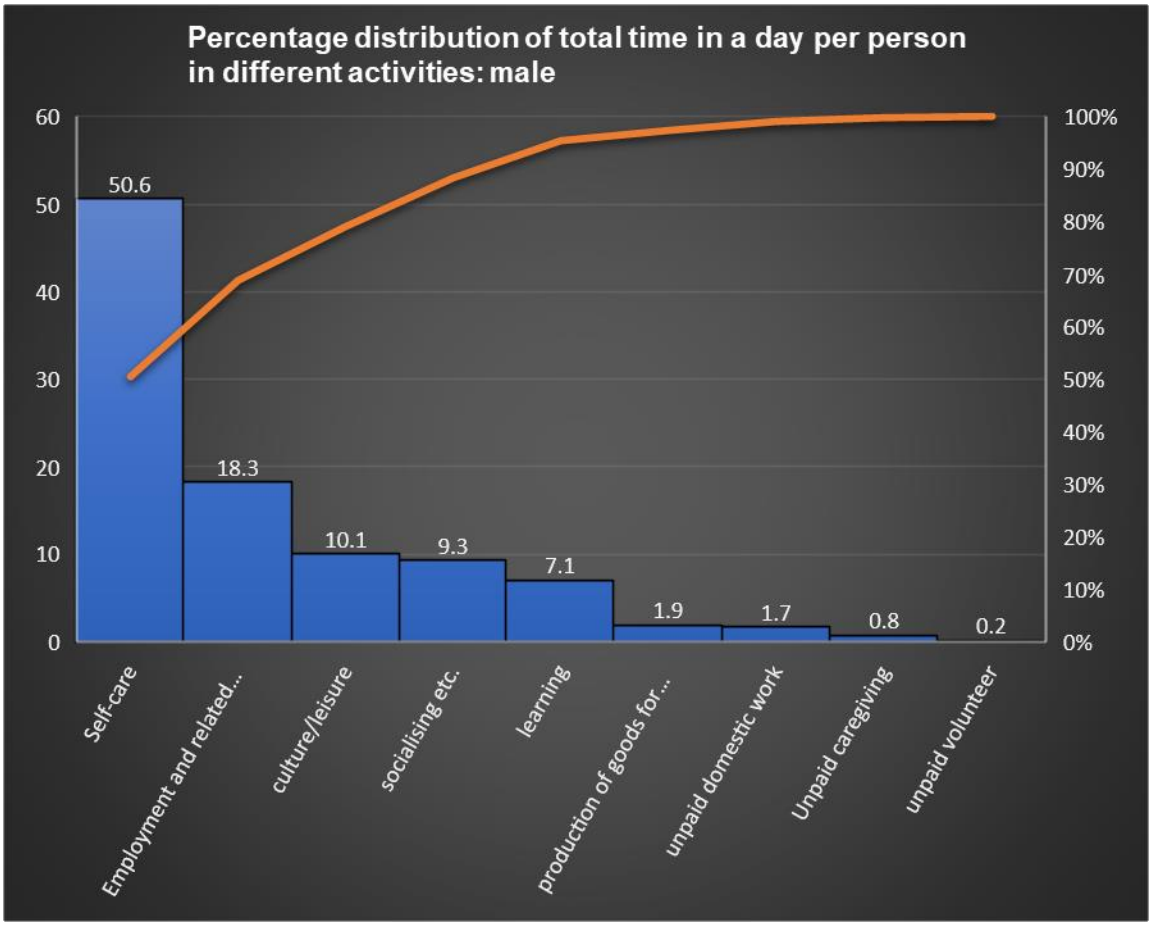
and men, higher is the gender gaps in labour force participation.

However, it is also observed that women from low-income families, with low levels of education attainment and increased financial burden are often compelled to seek employment in the workforce, therefore highlighting a 'double burden' in caring responsibilities. The double burden however, is not restricted to women belonging to low-income families, but extends to middle- and upper-class women as well, who are assigned the dual responsibility of participating in the labour market, while actively participating in caring responsibilities.

The most distinct inequality in gender gaps is for sharing of unpaid care work, as can be seen, a very small fraction of unpaid care work is performed by men, which is in sharp contrast to that of women, thereby highlighting gender inequality in sharing of unpaid care work burden. Additionally, differences in employment related and care giving activities is also representative on the negative implications of unequal sharing of caring responsibilities.

3.2.5. Percentage distribution of total time in a day per person in different activities: male

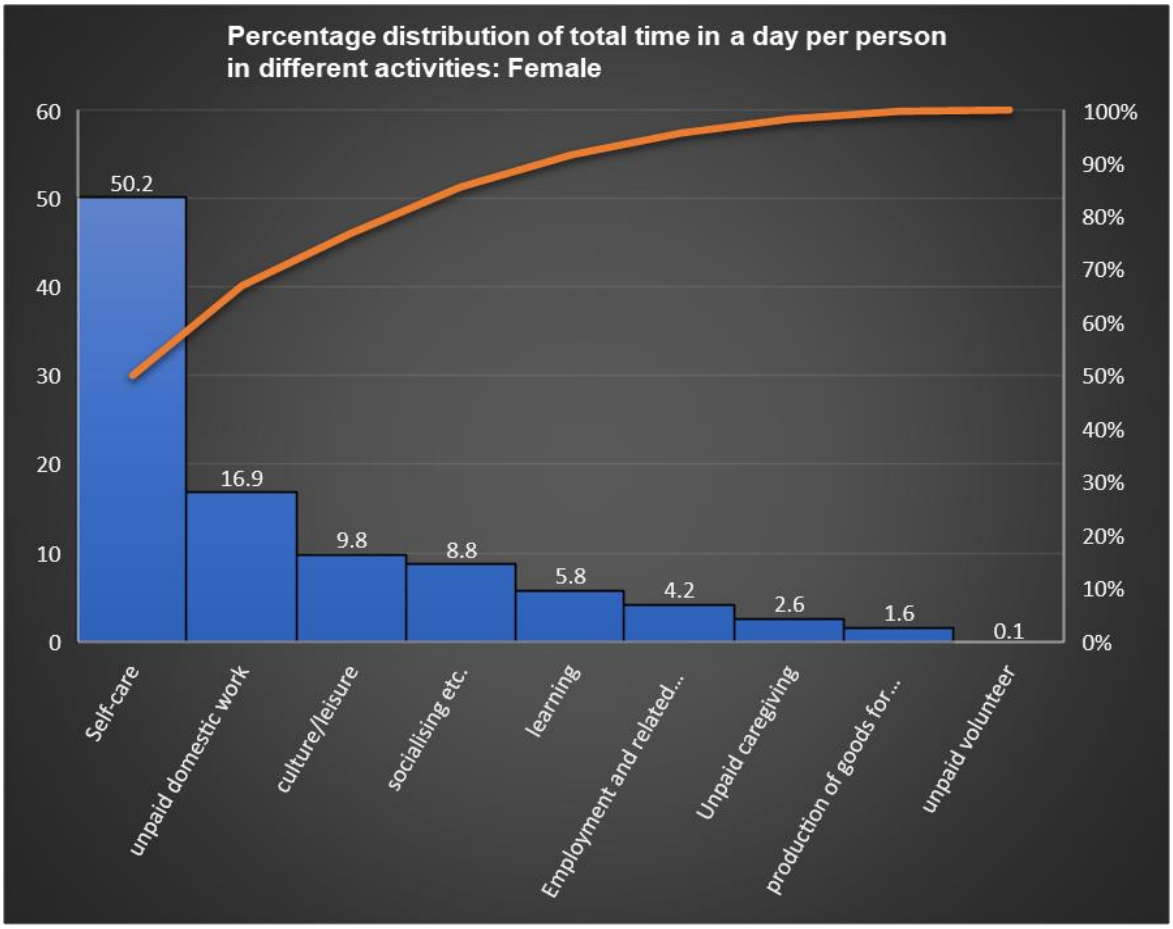
Table No. 3.2.5. Percentage distribution of total time in a day per person in different activities: male



Source: TUS Report, 2019

3.2.6. Percentage distribution of total time in a day per person in different activities: female

Table No. 3.2.6. Percentage distribution of total time in a day per person in different activities: female



Source: TUS Report 2019

Fig 3.2.5. Indicates the percentage distribution of total time in a day per person in different activities by men and women. Total time spent by men, per day per person is distributed across various activities, for instance, total time spent in employment related activities is 18.3 %, total time spent in spent in production of goods is 1.6%, self-care is 50.2%, unpaid domestic work is 16.9%, culture and leisure are 9.8%, unpaid volunteer activities is 0.1%, unpaid caregiving activities is 2.6%, learning is 5.8% and socialising etc is 8.8%.

Fig 3.2.6. Indicates the percentage distribution of total time in a day per person in different activities by men and women. Total time spent by women, per day per person is distributed across various activities, for instance, total time spent in employment related activities is 4.2%, self-care is 50.2%, unpaid domestic work is 16.9%, unpaid volunteer work is 0.1%, production of goods is 1.6%, unpaid caregiving is 2.6%, learning is 5.8%, culture/leisure activities is 9.8% and socialising etc is 8.8%.

The salient difference that is observed between allocation of total time spent in a day per person for men and women is the differing quantum of time spent on unpaid domestic work, employment and related activities and unpaid caregiving activities. For unpaid domestic work women spend 16.9% of their time, while men spend only 1.7%. Conversely, 4.2% time is spent by women on employment and related activities, while men spend only 18.3% of their time. Lastly, 2.6% and 0.8% of time is spent on unpaid caregiving by women and men, respectively. These estimates further highlight the discriminatory social norms that restricts activities undertaken by women.

3.3 Time-use survey Goa

3.3.1. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female) for Goa

Table No. 3.3.1. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female) for Goa

Distribution of the time spent on SNA, Extended SNA & Non-SNA activities in a day on an average per person (Male/female) for Goa.					
Category	Major activities	Male		Female	
		Average time spent (minutes)	Average time spent (%)	Average time spent (minutes)	Average time spent (%)
1. SNA	Employment & related activities	297	20.63	108	7.51
	Production of goods for own final use				
2.Extended SNA	Unpaid domestic services for household members	71	4.93	302	21.00
	Unpaid caregiving services for household members				

	Unpaid volunteer, trainee and other unpaid work				
3.non-SNA	Learning	1,071	74.42	1,028	71.48
	Socializing and communication, community participation and religious practice				
	Culture, leisure, mass-media and sports practices				
	Self-care and maintenance				
Total:		1,439	99.98	1,438	99.99

Source: Time use survey report (Author's calculation)

The above table depicts Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Male-Female) for the state of Goa. It is observed that the average time spent on SNA activities is 20.63% for men and 7.71% for women, which depicts the inequality in caring responsibilities. Similarly, the average time spent on extended SNA activities is 4.93% for men and 21.00% for women. As extended SNA activities is inclusive of unpaid care work, a wide gap in average time spent depicts the differences in unequal sharing of unpaid care work burden. Correspondingly, 74.42% of men spend their average time on non-SNA activities, such as leisure, women, however spend much lesser time that is 71.48% on such activities.

3.3.2. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (Urban-Rural) for Goa

Table No. 3.3.2. Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person (urban-rural) for Goa

Distribution of the time spent on SNA, Extended SNA & non-SNA activities in a day on an average per person (female- Rural/ Urban) in Goa.					
Category	Major activities	Urban		Rural	
		Average time spent (In minutes)	Average time spent (%)	Average time spent (In minutes)	Average time spent (%)
1.SNA	Employment and related activities	137	9.51	71	4.93
	Production of goods for own final use				
2.Extended SNA	Unpaid domestic services for household members	313	21.73	290	20.15
	Unpaid caregiving services for household members				
	Unpaid volunteer, trainee and other unpaid				

	work				
3.non-SNA	Learning	990	68.75	1,078	74.91
	Socializing and communication, community participation and religious practice				
	Culture, leisure, mass-media and sports practices				
	Self-care and maintenance				
Total:		1,440	99.99	1,439	99.99

Source: Time use survey report 2019 (Author's calculation)

The above table represents the Distribution of time spent on SNA, Extended SNA and non-SNA activities in a day on an average per person by women belonging to urban and Rural areas for the state of Goa. It highlights the differences in participation of various activities depending on the area. For instance, it is noted that while 4.93% of women in rural areas spend their time in SNA activities such as employment, on the other hand 9.51% of women in urban areas spend significantly higher share of time in the same activity. Which is in contrast to time spent on SNA activities for India, which denoted a higher share of time spent among rural women rather than urban women. One probable reason for higher time spent in SNA activities by urban women could be better access to labour markets, lucrative job opportunities, rising prices in the market, maintenance of high standard of living etc.

It is also observed that the average time spent of women in urban areas to perform extended SNA activities is calculated to be 21.73%. Conversely, the average time spent by women in rural areas is 20.15%, thereby exhibiting minor variations.

Women in Urban regions spend an average time of 68.75% on non-SNA activities, while rural women spend only 74.91% of time engaging in such activities. Which could be associated with a fast-paced city life and need to engage in economic activity in order to provide of the family.

Chapter 4: Valuing Unpaid Care Work for the state of Goa

Chapter 4. Valuing Unpaid Care Work for the state of Goa

Introduction

This chapter provides an account of women's unpaid work and their economic valuation with special reference to Salcete taluka, Goa State.

This chapter utilises primary survey data, for the purpose of analysis. It has been presented under 4 heads. The first section discusses the demographic, social, economic and household profile of the surveyed respondents. The second section describes the time use pattern, unpaid work structure and factors determining time spent on unpaid care work representative of the state of Goa through descriptive analysis. The third section provides monetary assessment of unpaid care work in Goa by application of the generalist and specialist cost approach. Finally, testing of hypothesis results is presented and analysed.

4.1. Socio-economic profile of the surveyed respondents

The present study aims to survey rural and urban women, as well as working and non-working women, in South Goa district to appraise the economic value of women's unpaid work. The study area, South Goa district, is the largest district in Goa and covers the entire southern part of the state (area of 19660 square kms). According to 2011 census data, it has a population of 640,537, with a literacy rate of 85.53%, sex ratio of 980, population of males is 323213 and females is 316749. Additionally, it is also the second largest district in the state by population and the first largest district in the state by area.

The chapter notes that the practice of women engaging in unpaid work is prevalent in Goa, as it is across states in India, although the extent to which it exists differs greatly. The standard assumption is that it is primarily carried out by women.

4.1. Details of sample respondents for South Goa district

Table No 4.1. Details of sample respondents for South Goa district

S1. N0	Regions		Category	No. of sample
1.	Urban	Margoa	Working	13
			Non-working	12
		Cuncolim	Working	12
			Non-working	13
			Total:	50
2.	Rural	Majorda	Working	12
			Non-working	13
		Loutulim	Working	13
			Non-working	12
			Total:	50
			Sum Total:	100

(Author's calculation)

The above table shows a proportional ratio of working and non-working women for urban and rural areas. Where urban areas of Margoa and Cuncolim, have a sample size of 25 each, with a sum total of 50 the same is applicable for working and non-working women in rural areas.

Therefore, the total sample size of surveyed respondents is 100. Which is representative of the entire South Goa district.

4.2. Descriptive Analysis

This section aims to examine the demographic, social, and economic profile of the respondents surveyed in the study. The purpose of this analysis is to gain a better understanding of the background details of the respondents and to provide context for the subsequent analysis of the economic value of women's unpaid work in South Goa district.

The demographic profile of the respondents includes information such as age, relationship status, education level, employment status, and household size. The social profile includes factors such as family type. The economic profile includes income level, source of income, husband's occupation, ownership of assets and access to resources such as clean drinking water and toilet facilities.

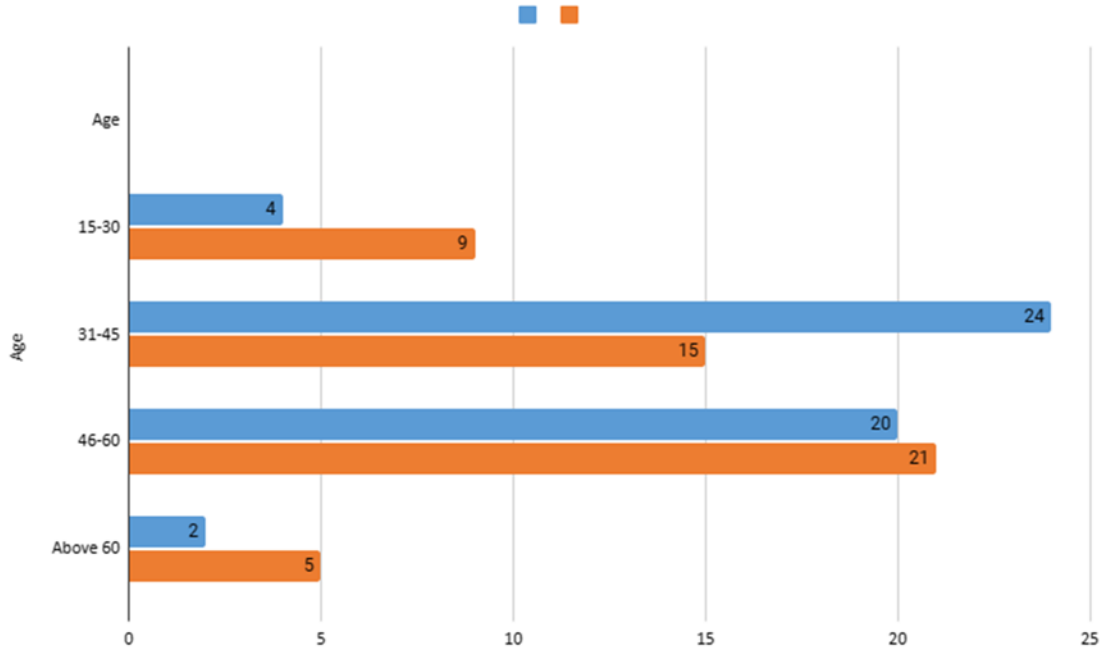
This information is pivotal to identify potential factors that may influence the economic valuation of women's unpaid work in South Goa district.

4.2.1. Age of the respondent

The chart below represents the age of the surveyed women respondents. The age of the respondents is classified into 4 different age groups. In addition, the age of women residing in urban and rural

areas is also classified. Out of the total surveyed 100 respondents, 4 rural and 9 urban women belong to 15-30 years age group. In the 31-45 years age group 24 women belong to rural areas and 15 belong to urban areas. Additionally, 20 and 21 urban and rural women belong to 46-60 years age group. Lastly, 2 women from urban areas and 5 women from rural areas are above 60 years of age. It is observed that the maximum share of participants belongs to the 31-45 years age category. Indicating active participation in unpaid care work during the ages of 31 to 45 years.

Table No. 4.2.1. Age of the respondent



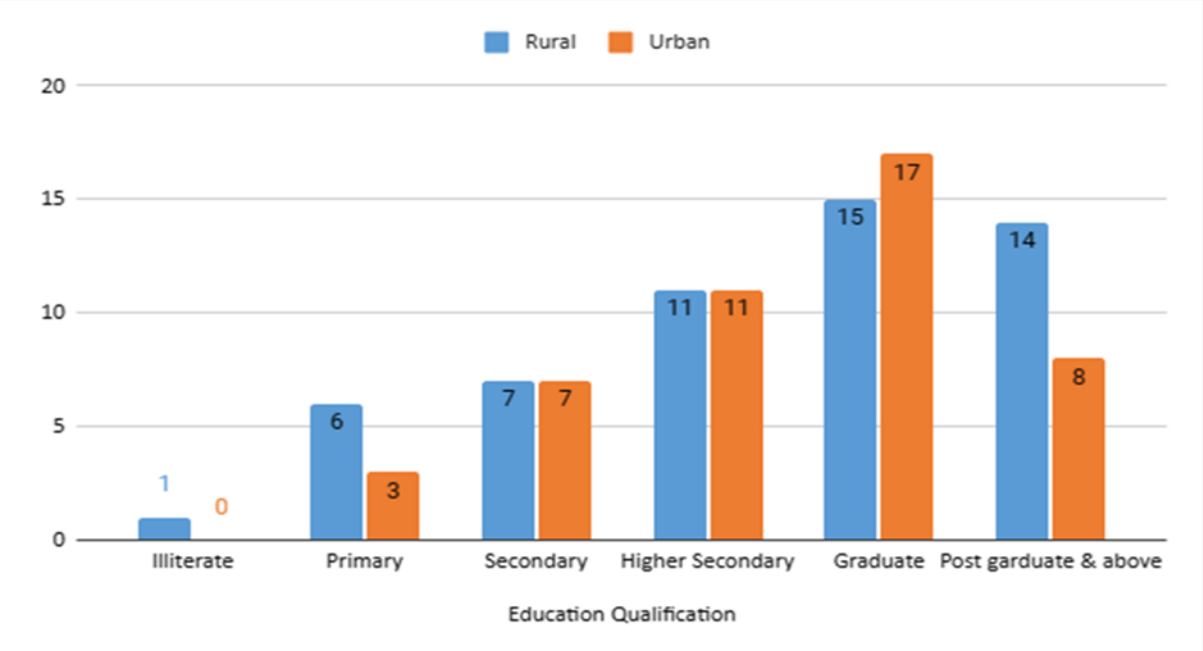
Source: Primary survey

4.2.2. Education of the respondent

Table No. 4.2.2. Education of the respondent

The educational qualification of respondents is classified as Illiterate, primary, secondary, higher secondary, graduate, post graduate and above.

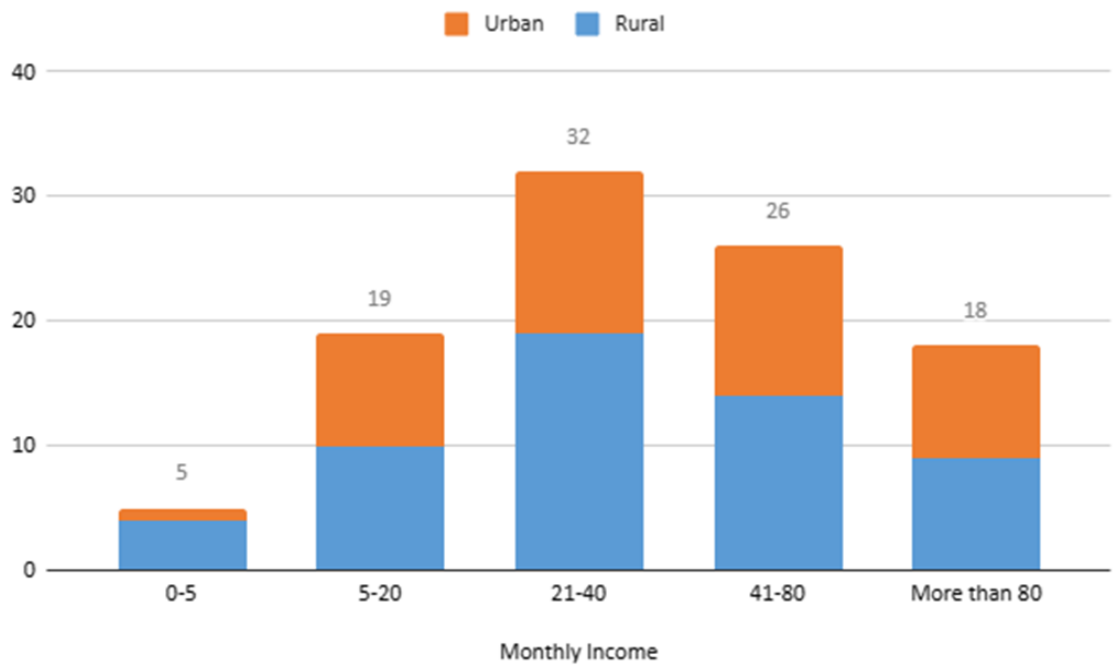
The chart below depicts the educational qualification of urban and rural women respondents. The sample comprises of 1 illiterate participant belonging to rural region, 6 rural and 3 urban women attained primary education, the number of participants who studied till secondary (7) and higher secondary (11) is equal for urban and rural women. Further, graduates in urban regions are a little more in number (17) as compared to that of women in rural regions (15). Similarly, 14 participants in rural areas attained their post graduate degrees as compared to only 8 participants in urban areas.



Source: Primary survey

4.2.3. Monthly family income of the surveyed respondents

Table No. 4.2.3. Monthly family income of the surveyed respondents

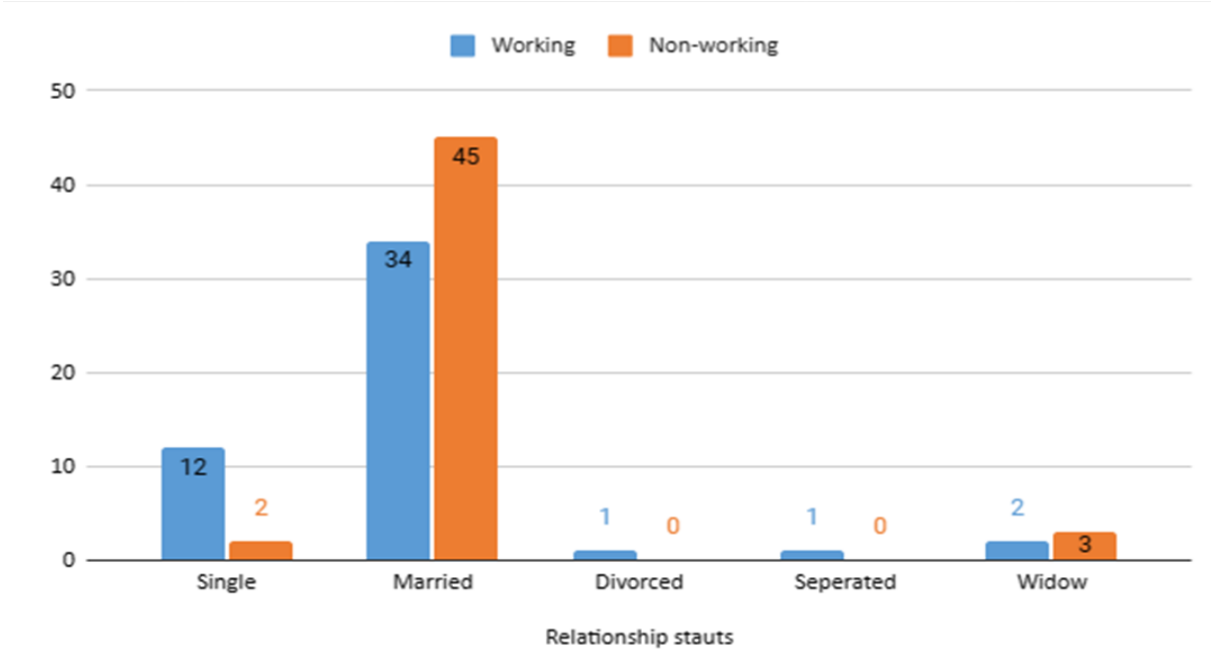


Source: Primary survey

The above chart depicts the monthly family income of the respondents which is classified into income groups of 0-5, 5-20, 21-40, 41-80 and more than 80. At 0-5 income level, the number of rural women belonging to the income bracket is much higher than that of urban women. Both rural and urban women acquire a family income of 5-20. It is observed that a greater number of rural women fall within the income range of 21-40 as compared to urban women. Further, 26 participants attain a family income of 41 to 80. Lastly, a family income of more than 80 is received by women in rural areas which is similar to the proportion of family income of women in urban areas.

4.2.4. Relationship status of the surveyed respondents

Table No. 4.2.4. Relationship status of the surveyed respondents

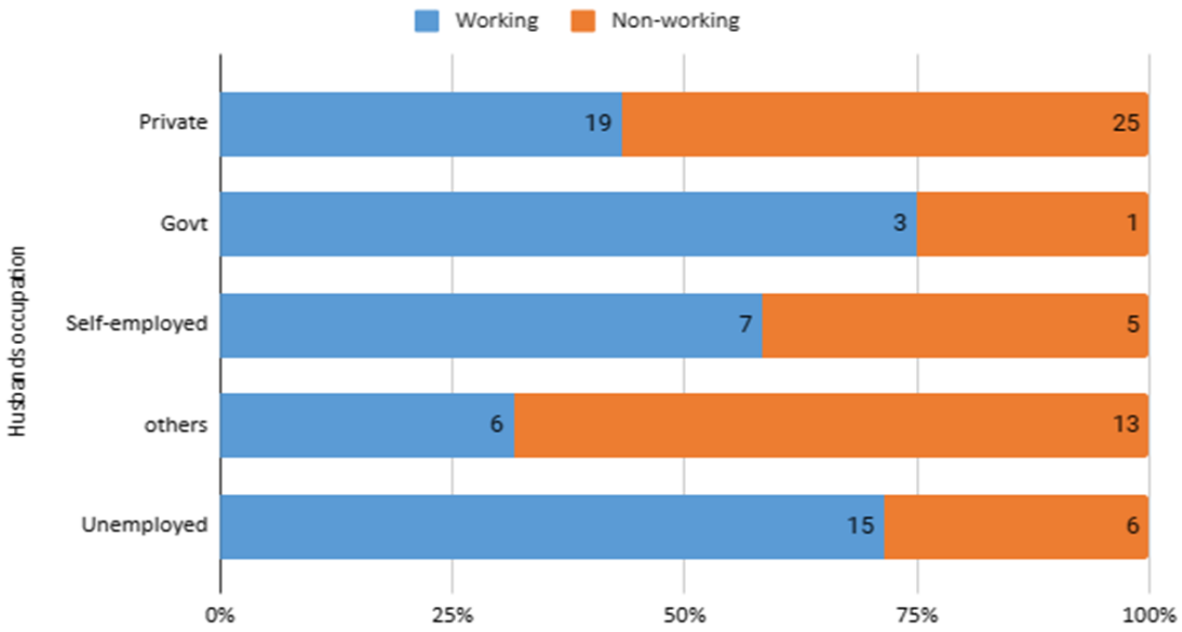


Source: Primary survey

The above graph illustrates the relationship status of the surveyed respondents of working and non-working women. It can be seen that Among working women 12 are single and 2 are single but not working. Among working women 34 of them are working, while 45 of them are absent from the labour force, there could be a possibility that their husbands or any other family member provides financially for the family, due to which they choose not to the enter the workforce. Another reason for not engaging in employment opportunities could be a decision to spend time taking care of children or elders or to manage household work. The number of participants who are divorced, separated or widowed are a handful and are mostly working except for widows.

4.2.5. Husband's occupational status of the surveyed respondents

Table No. 4.2.5. Husband's occupational status of the surveyed respondents



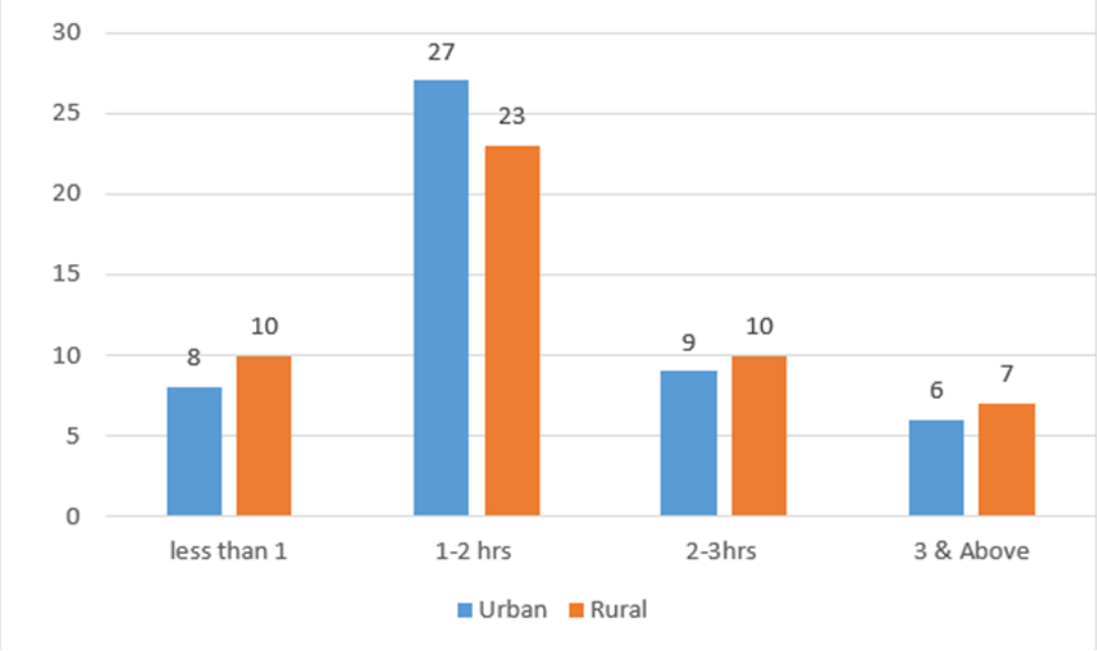
Source: Primary survey

The above chart depicts husband's occupational status of the surveyed respondents that in turn determines sharing of unpaid care work burden. Husband's occupation is classified into Private sector employment, Government sector employees, Self-employed, other types of employment and unemployed of working and non-working women. Husbands of non-working women that are employed in various other types of employment positions account for the largest proportion. Similarly, wives of unemployed husbands are mostly working, with the exception for a few non-working women. The reason could be the necessity to provide for the family in order to meet daily expenditures, compels women with unemployed husbands to enter into the workforce. A little more than 50% of working women respondents' husbands are self-employed which is not very different from that of non-working women. Nearly 75% that is majority of husbands of working women are

employed in the government sector. Lastly, around 52% of non-working respondents husbands are working in the private sector.

4.2.6. Leisure hours of the surveyed respondents

Table No. 4.2.6. Leisure hours of the surveyed respondents

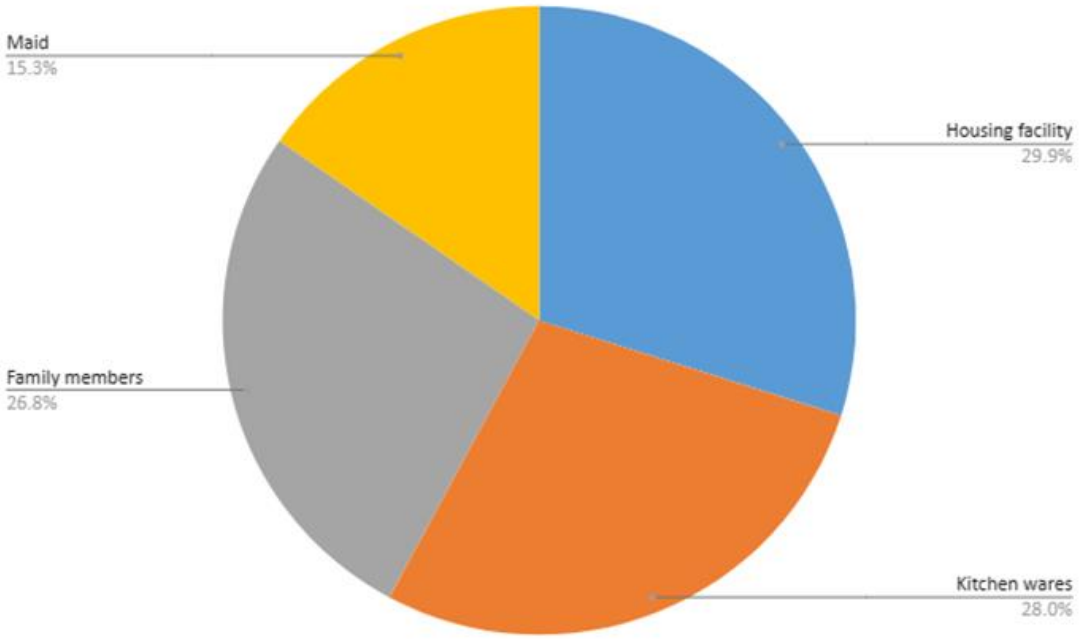


Source: Primary survey

The above chart depicts the number of leisure hours that women in urban and rural areas receive at the end of the day. It is divided into 4 categories; less than 1 hour, 1 to 2 hours, 2 to 3 hours and more than 3 hours. From the chart we can extrapolate that 8 and 10 women from urban and rural areas receive less than 1 hours of leisure. Women in urban areas receive a slightly higher share of availability of 1 to 2 leisure hours as compared to women in rural areas. Similarly, 2 to3 hours is spend on leisure activities by 9 and 10 women in urban and rural areas. Lastly, marginal difference in leisure spent by urban and rural women is observed for more than 3 hours.

4.2.7. Reasons for leisure availability of the surveyed respondents

Table No. 4.2.7. Reasons for leisure availability of the surveyed respondents

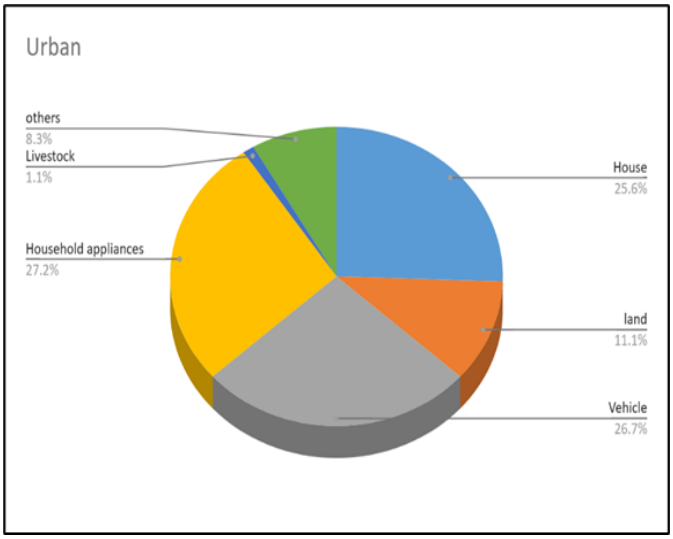


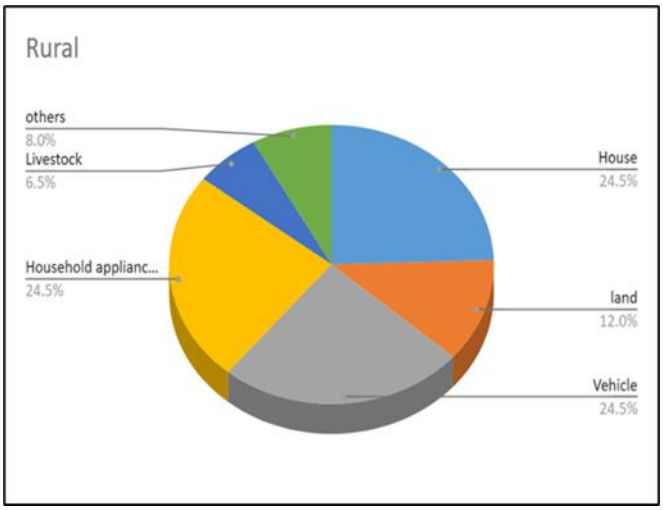
Source: Primary survey

The above pie-chart illustrates the various reasons for leisure availability, which is classified as maids, housing facility, kitchen wares and family members. The most prominent reason for leisure availability is housing facilities denoted as 29.9%, this could be because it eases the number of times for a particular task, a significant reduction in time is responsible for leisure hours. Similarly, kitchen wares and family members also contribute to leisure hours availability by 28% and 26.8 % respectively. Lastly, it is observed that employment of maids also contributes to leisure time by 15.3%.

4.2.8. Ownership of assets of the surveyed respondents

Table No. 4.2.8. Ownership of assets of the surveyed respondents





Source: Primary survey

The above pie-chart depicts the ownership of assets of the surveyed respondents among urban and rural women. It is observed that the most participants own a vehicle, which is denoted by 26.7% and 24.5 % for urban and rural women, respectively. Similarly, the second most owned asset is a house, which is followed by ownership of household appliances, land and other assets.

4.2.9. Distribution of time spent in unpaid care work by the surveyed respondents (urban-rural)

Table No. 4.2.9. Distribution of time spent in unpaid care work by the surveyed respondents (urban-rural)

S1. No.	Details		Rural (n=50)	Urban (n=50)	Total (n=100)
1.	Daily time spent in household routine work (In minutes)	Cleaning	4160	4250	32,730
		Washing clothes	2565	1910	
		Cooking food	4935	4950	
		Gardening	1760	1500	
		Washing dishes	1460	1470	
		Serving food	284	511	
		Fetching water	20	50	
		Sweeping	1280	915	
		Others	120	540	
2.	Daily time spent in caregiving activities (In minutes)	Caring for children	3785	5990	11,575
		Caring for elders	225	265	
		Caring for sick	510	140	
		Caring for others	210	510	

Primary survey (Author's calculation)

The above table shows the daily time spent in household routine work and caregiving activities (Computed in minutes). It is noted that a total of 32,730 minutes is spent on household routine

work such as cleaning, washing clothes, cooking food, gardening, washing dishes, serving food, fetching water, sweeping and other activities.

The most amount of time spent by rural women in household work is on cooking food denoted as 4935 minutes. Which is also applicable for women in urban areas, which is denoted by 4950 minutes

Similarly, women in rural areas spend maximum amount if their time in caring for children, denoted as 3785 minutes. Further, it is observed that women in urban areas spend a significantly larger amount of time as compared to women in rural areas in caring for children, denoted at 5990 minutes. The total amount of time spent by women in urban and rural regions on caring activities is 11,575. Which is lesser as compared to time spent on household work.

4.2.10. Distribution of time spent in unpaid care work by the surveyed respondents (working-non-working)

Table No 4.2.10. Distribution of time spent in unpaid care work by the surveyed respondents (working-non-working)

S1. No.	Details		Working (n=50)	Non-working (n=50)	Total (n=100)
1.	Daily time spent in household routine work (In minutes)	Cleaning	4040	4370	32,685
		Washing clothes	2135	2340	
		Cooking food	4425	5460	
		Gardening	1490	1770	
		Washing dishes	1405	1525	
		Serving food	361	439	

		Fetching water	50	20	
		Sweeping	945	1250	
		Others	210	450	
2.	Daily time spent in caregiving activities (In minutes)	Caring for children	5205	4570	11,635
		Caring for elders	185	305	
		Caring for sick	150	500	
		Caring for others	510	210	

Source: Primary survey (Author's calculation)

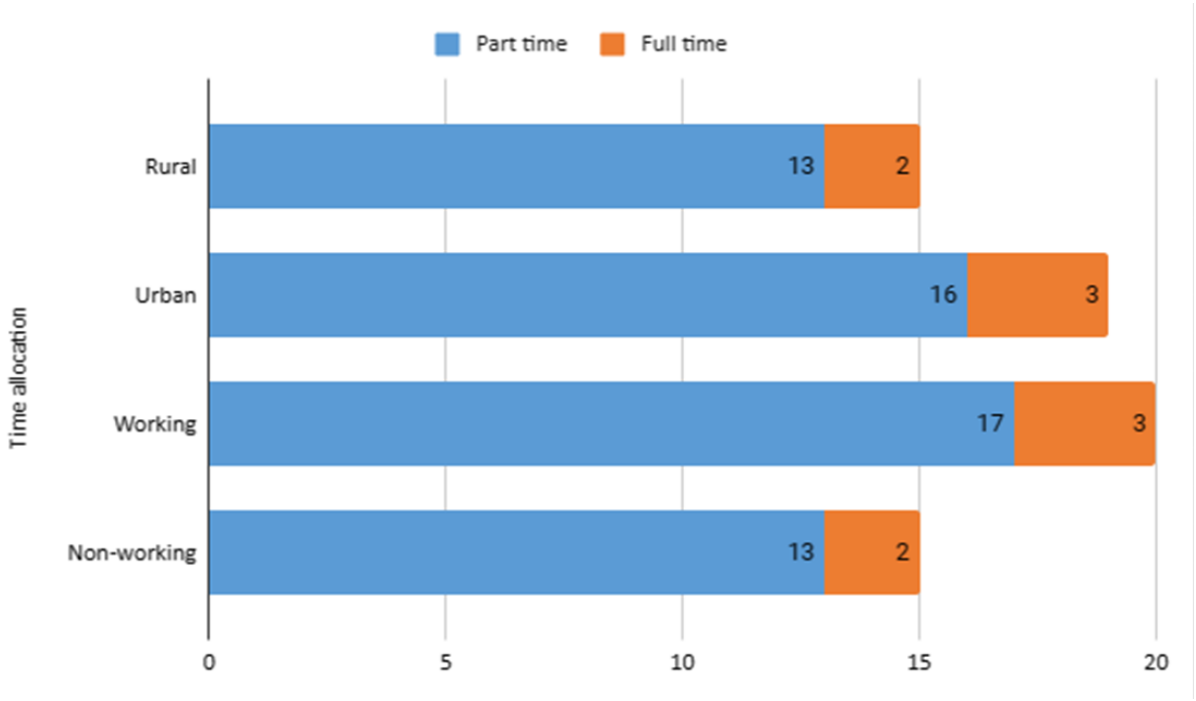
The above chart depicts the daily time spent in household routine work and caregiving activities (Computed in minutes) among working and non-working women. It is noted that a total of 32,685 minutes is spent on household routine work such as cleaning, washing clothes, cooking food, gardening, washing dishes, serving food, fetching water, sweeping and other activities.

The most amount of time spent by working women in household work is on cooking food denoted as 4425 minutes. Which is same for women in urban areas, however the time spent on cooking by working and non-working differ to a great extent denoted as 5460 minutes.

Similarly, working women spend maximum amount of their time in caring for children, denoted as 5205 minutes which is greater to the time spent by non-working women in caring for children which is 4570 minutes. The total amount of time spent by working and non-working women on caring activities is 11,635 minutes. Which is lesser as compared to time spent on household work.

4.2.11. Appointment of maids and time allocations

Table No 4.2.11. Appointment of maids and time allocations



Source: Primary survey

The above graphs depict the appointment of maids by working and non-working women, as well as by women in rural and urban areas. It is noted that nearly 13% of women in rural areas that employ maids is works for part time, opposed to the remaining 2 % employed full time. Similarly, the proportion of urban women employing part time maids is higher as compared to that of rural women. Further, 17% of working women employ part time maids similar, to non-working women. One reason could be the feasible working hours, privacy, and nominal wages of those employed on a part time basis.

4.3. MONETARY ASSESMENT OF UNPAID CARE WORK IN GOA

4..3.1. The Generalist cost approach

The generalist cost approach is the wage paid for the domestic work prevailing in the local market. The generalist cost approach is calculated using primary survey data. The minimum wage rate of a semi-skilled worker was incorporated for the estimation of the monetary value of unpaid care work. The minimum wage rate was provided by the Department of Labour official Gazette, government of Goa for the year 2016, therefore, the minimum wage rate for that of a semi-skilled worker stood at Rs. 307/- per day.

It is calculated as follows:

Value of Unpaid Work = Average Time Spent for Activity × Wage Rate × No. of Persons = (Total Time spent for activities) × (Wage rate per unit of time)

Table No. 4.3.1. Monetary estimation of unpaid care work using the generalist cost approach

Valuation of Unpaid Domestic Work Performed by Women across Categories							
		Generalist approach					
Categories	**Total time spent on unpaid household activities (minutes)**	**Average time spent on unpaid household activities (minutes)**	**Average time spent (hours)**	**Total number of women**	**Wage per hour**	**Average wage per day per person {(3)×(5)}**	**Valuation per day (Rs.) {(4)×(6)}**

1		2	3	4	5	6	7
Total Female							
Female	**44305**	**443**	**7.383**	**100**	**46**	**339.618**	**33962**
Urban	23046	230.46	3.841	50	**46**	176.686	8834.3
Rural	21259	212.59	3.543	50	**46**	162.978	8148.9
Total	44305	443.05	7.384	100		339.664	16983.2
Age wise							
15-30 years	4039	40.39	0.673	13	**46**	30.958	402.454
31-45 years	18529	185.29	3.088	38	**46**	142.048	5397.824
46 -60 years	18980	189.8	3.163	42	**46**	145.498	6110.916
Above 60	2757	27.57	0.46	7	**46**	21.16	148.12
Total	44305	443.05	7.384	100		339.664	12059.314
level of education							
Illiterate	520	5.22	0.087	1	**46**	4.002	4.002
Primary	3300	33	0.55	9	**46**	25.3	227.7
Secondary	7176	71.76	1.196	14	**46**	55.016	770.224
Higher Secondary	9000	90	1.5	22	**46**	69	1518
Graduate	12964	129.64	2.161	32	**46**	99.406	3180.992
Post graduate & above	11345	113.45	1.891	22	**46**	86.986	1913.692
Other	0	0	0	0	**46**	**0**	**0**
Total	44305	443.07	7.384	100		339.71	7614.61
Employment status							
working	21096	210.96	3.516	50	**46**	161.736	8086.8
Non-working	23209	232.09	3.868	50	**46**	177.928	8896.4
Total	44305	443.05	7.384	100		339.664	16983.2
hired Maid							
Yes	17622	176.22	2.937	35	**46**	135.102	4728.57
No	26683	266.83	4.447	65	**46**	204.562	13296.53
No. of Children							
0	20107	201.07	3.351	54	**46**	154.146	8323.884
1	10695	106.95	1.782	23	**46**	81.972	1885.356
2	10083	100.83	1.68	17	**46**	77.28	1313.76
3	2880	28.8	0.48	5	**46**	22.08	110.4
3 & above	540	5.4	0.09	1	**46**	4.14	4.14
Total	44305	443.05	7.383	100		339.618	11637.54

No. of elders							
0	25435	254.35	4.239	62	**46**	194.994	12089.628
1	9870	98.7	1.645	22	**46**	75.67	1664.74
2	5165	51.65	0.861	8	**46**	39.606	316.848
3	2570	25.7	0.428	6	**46**	19.688	118.128
3 & above	1265	12.65	0.211	2	**46**	9.706	19.412
Total	**44305**	**443.05**	**7.384**	**100**		**339.664**	**14208.756**

Source: Primary survey (Author's calculation)

The above table measures the valuation of unpaid domestic work performed by Women across various categories such as place of residence, age, level of education, employment status, employment of maid, number of children and number of elder.

The estimated value of unpaid domestic household work for 100 respondents was valued at Rs. 339.618/- per day using the replacement cost method. The valuation of unpaid domestic work for women in urban areas was valued at Rs.176.686/- per day. Similarly, unpaid domestic work for women in rural areas was worth Rs.162.978/- per day. Which depicts the variation in estimation of unpaid work among urban and rural household, whereby the value in urban areas fetches a higher price rather than in rural areas. A factor contributing to this variation could be the level of education, age of the respondents, employment status and so on.

Variation also exists in the valuation of unpaid care work of different age groups, which follows an upward trend, that is as women grow older, their contribution towards household chores increases, thereby generating a higher value. However, the value of unpaid care work eventually starts declining as women cross 60 years of age, as their capacity to perform household tasks decreases due to old age. A similar trend can also be seen with respect to level of education and monetary value of care work. It can be noticed that among working and non-working women,

working women generated Rs.161.736/- per capita which is higher compared to that of non-working women performed care work worth Rs.177.928/-.Similarly, the per capita value generated by women without maids is higher than those employing maids. The most straightforward reason for this could be the additional amount of time a woman would have to spend on household chores, in the absence of a maid.

In contrast to the statement that unpaid care work increases as number of children increases, thereby leading to an increase in caring responsibilities, however it is observed that as number of children increases the valuation of unpaid work gradually decreases. A similar trend is also prevalent with valuation of unpaid care work and number of elders.

4.3.2 The Specialist cost approach

The specialist cost is the wage paid for different specialized work comparable with the relevant domestic activities.

It is calculated as follows:

Value of Unpaid Work = Average Time Spent for Activity × Wage Rate × No. of Persons = (Total Time spent for activities) × (Wage rate per unit of time)

Table No. 4.3.2.a Minimum wage of corresponding occupations for unpaid care work (Specialist approach)

Minimum wage of corresponding occupations for Unpaid household routine and caregiving (Specialist)

Category	Major Activities	Corresponding occupation	Daily minimum wage	Average wage per day
1.Household Routine	Cleaning	Cleaner	313	39.125
	Washing clothes	Laundryman	313	39.125
	Cooking food	Cook	428	53.5
	Gardening	Gardener	428	53.5
	Washing dishes	Dish Wala	313	39.125
	Serving food	Floor waiter	373	46.625
	Fetching water	Waterman	313	39.125
	Sweeping	Sweeper	313	39.125
2.Caregiving activities	Caring for child	Ayaz	307	38.375
	Caring for elders	Care taker	307	38.375
	Caring for sick	Care taker	307	38.375

Source: computed from the Secondary data (Department of Labour official Gazette, Government of Goa, 2016)

The above table depicts the minimum wage of corresponding occupations of major household routine and caregiving activities. Under the specialist approach the market wage rate of a specialized activity is equated with that of an unpaid care activity performed by women. For instance, the minimum wage rate of a cook is Rs.313/-, the value of unpaid care work is then estimated by deriving the average wage per day, which is the wage rate divided by the number of working hours (8 hours), which would then generate an average wage rate of Rs.39.125/- per day. Additionally, it should be noted that, for the purpose of the study the minimum wage rates

were obtained from sectors such as employment in private hospitals and employment in residential hotel/restaurant/eating house for zone A and B.

Table No. 4.3.2.b. Monetary estimation using the specialist cost approach

Category	Type of activity	Corresponding occupation	wages	Total time spent in minutes	Average time spent in minutes	Average time spent in hours	Total number of women	Wage per hour	Average wage per day per person (3) × (5)	Valuation per day (Rs.) (4) × (6)
1					2	3	4	5	6	7
Routine	Cleaning	Cleaner	313	8410	84.1	1.40	97	39.12	54.84	5319.50
	Washing clothes	Laundry man	313	4475	44.75	0.74	95	39.12	29.18	2772.16
	Cooking food	Cook	428	9885	98.85	1.64	96	53.5	88.14	8461.56
	Gardening	Gardener	428	3260	32.6	0.54	66	53.5	29.06	1918.51
	washing dishes	Dish-wala	313	2930	29.3	0.48	96	39.12	19.10	1834.18
	Serving food	Floor waiter	373	800	8	0.13	62	46.62	6.21	385.43
	Fetching water	Waterman	313	70	0.7	0.01	6	39.12	0.45	2.73
	Sweeping	Sweeper	313	2195	21.95	0.36	81	39.12	14.31	1159.37
Care	Caring for children	Ayaz	307	9775	97.75	1.62	53	38.37	62.51	3313.52
	Caring for elders	Caretaker	307	490	4.9	0.08	9	38.37	3.13	28.20
	Caring for sick	Caretaker	307	650	6.5	0.10	6	38.37	4.15	24.94
Total							100			25220.13

Source: Primary survey (Author's calculation)

The above table represents the valuation of unpaid domestic work for different household routine and caregiving tasks performed by women. The data used for the purpose of estimating the monetary value of unpaid care work under the specialist approach is from primary survey data. The total value of unpaid care work under the specialist approach is Rs.252.20/- per day.

Which is significantly lower than the wage rate generated under the generalist cost approach.

The monetary value of unpaid care work, depends on task performed or the corresponding occupation, for instance the work performed by a cook fetches a monetary value of Rs.8461.56/- which is significantly different to the value generated by fetching water, which is denoted as Rs.2.73/- per day. Therefore, it can be said that the value of unpaid care work depends on the skills involved, hours of work and level of difficulty.

4.4 Testing of hypothesis

The hypothesis of the study is stated in chapter 1, which helps establish a relationship between the underlying theory and research questions of the study. Based on empirical evidence from the study, hypotheses testing helps to examine and determine the varying differences in pattern and time spent on unpaid care work among rural and urban regions. Similarly, it also helps recognise the differences in the quantum of such work by working and non-working women and the underlying factors that influence such outcomes such as husband's occupation, level of education, employment, relationship status and number of children etc. Multiple Linear Regression Model,

Analysis of Variance (ANOVA - One-way) have been utilized for the testing of the framed hypothesis.

4.4.1. Statement of the null and alternative hypothesis

Hypothesis 1

Ho: Time spent on unpaid care work does not vary among rural and urban women.

H1: Time spent on unpaid care work varies among rural and urban women.

Hypothesis 2

Ho: The overall workload of working and non-working women is not the same

H1: The overall workload is the same

Hypothesis 3

Ho: Key parameters such as husband's occupation, education, employment, relationship status and number of children fails to determine the time spent on total unpaid care work.

H1: At least one of the key parameters such as husband's occupation, education, employment, relationship status and number of children determines the time spent on total unpaid care work.

4.4.2. Results from One-way ANOVA depicting urban-rural variation

Table No. 4.4.2. One-way ANOVA depicting rural and urban variation in unpaid care work

Group		Mean	Variance	*Df*	T value	P value
Routine	Urban	322.82	16408.31	97	-0.334	0.7384
	Rural	331.78	19383.56			
	Urban	138.1	30069.27	96	1.379	0.171

Care	Rural	93.4	22464.73			
	Urban	460.92	46488.72	98	0.841	0.401
Total	Rural	425.18	43618.59			

Source: Primary survey

The first hypothesis has been tested by One-way ANOVA. The aim of the hypothesis is to identify the variation in time spend in unpaid care work by women in urban and rural areas. The factors determining the urban and rural variation is the total time spend on household routine and caregiving activities.

In the One-way ANOVA model, total time spend on unpaid care work is taken as dependent variables. On the other hand, regions are considered as an independent parameter. The above table shows that the T value for household routine work is -0.334 and the T value for care work is 1.379. The P value of 0.401 indicates an insignificant relationship between household routine and care work performed by women in urban and rural areas. Therefore, due to the absence of variation between unpaid care work performed by women in rural and urban areas, we accept the null hypothesis, since it is not significant even at 90% confidence interval.

4.4.3 One-way ANOVA depicting variation among working and non-working women

Table No. 4.4.3. One-way ANOVA depicting variation in unpaid care work among working and non-working women

Group		Mean	Variance	*Df*	T value	P value
	Working	300.92	18971.17	97	2.011	0.047

Routine	Non-working	353.68	15441.44			
Care	Working	121	34344.89	91	-0.321	0.748
	Non-working	110.5	19152.29			
Total	Working	42.92	357305.62	91	0.9969	0.321
	Non-working	464.18	32542.23			

Source: Primary survey

The second hypothesis has also been tested by One-way ANNOVA. The aim of the hypothesis is to highlight the prevalence of "double burden" among working women. The factor determining the "double burden" is the share of time spent on unpaid care work by working and non-working women.

One-way ANOVA model has been applied to examine the variation in sharing of caring responsibilities by working and non-working women in the study area. The above table shows that the T value for household routine work is 2.011 and the T value for care work is -0.321. The P value 0.047 for routine work indicates a significant relationship between household routine and unpaid domestic care work performed by women in urban and rural areas. Which suggest that women who work invest lesser time in routine activities. Therefore, we accept the null hypothesis as the P value is significant.

4.4.4. Details of the Dependent Variable for testing of hypothesis 3

Table No. 4.4.4. Details of the dependent variable for testing of hypothesis 3

Hypo.	Variable		Type	Variable Description
3.	Time spent on unpaid work (Actual value in terms of hours)	Household routine work	C	Time spent on house work
		Care work	C	Time spent on care work

Source: Computed Note: Hypo. represents hypothesis, C = Continuous

The third hypothesis has been tested with the application of Multiple linear regression model. The dependent variable is time spent on unpaid work which includes amount of time spent on house maintenance (Cleaning, washing clothes, cooking food, gardening, washing dishes, serving food, fetching water and sweeping) and amount of time spent on care work (Caring for children, caring for elders, caring for sick and others). For the purpose of analysis, actual value that is time spent in minutes on various types of unpaid work has been taken in to account.

4.4.5 Details of the Independent Variables for testing of hypothesis 3

Hypo	Variable	Type	Variable Description
	Area	B	Urban = 1 Rural = 0
	Employment status	B	Working = 1 Non-working = 0
3.	Monthly family income	B	Less than 5 = 0 5-20 = 1 21-40 = 2 41-80 = 3 More than 80 = 4

	Household appliances	B	Yes = 1 No = 0
	Education	B	Illiterate = 0 Primary = 1 Secondary = 2 Higher secondary = 3 Graduate = 4 Post graduate = 5 Others = 6
	Number of children	B	None = 0 One = 1 Two = 2 Three = 3 Three and above = 4
	Age of the respondent	B	15-30 years = 0 31-45 years = 1 46-60 years = 2 Above 60 = 3
	Husbands' occupation	B	Nil = 0 Self-employed = 1 Private = 2 Government = 3 Others = 4
	Relationship status	B	Single = 0 Married = 1 Separated = 2 Divorced = 3 Widow = 4
	Number of family members	B	0-5 = 0 5-10 = 1 10-15 = 2 15 & above =3
	Family structure	B	Nuclear = 0 Joint = 1

	Number of Elders	B	None = 0 One = 1 Two = 2 Three = 3 Four = 4	
	Ownership of house	B	Own = 0 Rental = 1 Others = 2	
	Ownership of assets	B	House	Yes = 1
				No = 0
			Land	Yes = 1
				No = 0
			Household appliances	Yes = 1
				No = 0
			Livestock	Yes = 1
				No = 0
			Other assets	Yes = 1
				No = 0

Source: Computed Note: Hypo. represents hypothesis, C = Continuous, B = Dummy variable

The above tables provide a list of the various categorical variables used in our analysis.

The third hypothesis has been tested with the application of Multiple linear regression model. The dependent variable is time spent on unpaid work which includes amount of time spent on house maintenance (Cleaning, washing clothes, cooking food, gardening, washing dishes, serving food, fetching water and sweeping) and amount of time spent on care work (Caring for children, caring for elders, caring for sick and others). For the purpose of analysis, actual value that is time spent in minutes on various types of unpaid work has been taken in to account.

4.4.6. Result of the Multiple regression model

S1. No.	Variables	Coefficients	Standard errors	T value	P value
1.	No. of children	.28622***	.11632	2.46	0.016
2.	Age of the respondent	.05306	.08045	0.66	0.511
	Children # age	-.0816832	.0678967	-1.20	0.233
3.	Relationship				
	Married	.64181 ***	.28314	2.27	0.026
	Separated	-.32893	.45802	-0.68	0.497
	Divorced	-.68238	.44516	-1.53	0.129
	Widow	-.05374	.28505	-0.19	0.851
4.	Residence	.03469	.09357	0.37	0.712
5.	Education	-.06545	.05956	-1.10	0.275
6.	Employed	-.44869***	.25682	-1.75	0.085
	Employed # education	.12898	.0743036	-1.75	0.085
7.	Husbands' occupation				
	Self-employed	-1.1148***	.40041	-2.78	0.007
	Private	-.64659***	.31192	-2.07	0.041
	Government	-1.5826	.92814	-1.71	0.092
	Others	-.50387***	.32943	-1.53	0.130
8.	Monthly Income	-0.00000841***	0.00000415***	-2.03	0.046

	Husband’s occupation # monthly income				
	Self-employed	0.00000151***	0.00000641***	2.35	0.021
	Private	0.00000853***	0.0000048***	1.78	0.080
	Government	0.000032***	0.0000171***	1.87	0.065
	Others	0.00000769***	0.00000616***	1.23	0.221
	R square	0.4647			
	Adjusted R square	0.3291			
	F statistics	0.0000			

Source: Primary data

The above table shows that relationship between key parameters such as husband's occupation, education, employment, relationship status and number of children and how it in turn determines the time spent on total unpaid care work. The regression results in the above table depicts a significant relationship between total time spent in unpaid care work and parameters such as number of children which denotes a P value of 0.016. Additionally, as more women participate in the workforce, they become more aware of the inequality of the sharing of care responsibilities and therefore quantum of unpaid of unpaid care work decreases which is indicated by the P value of 0.085 for the employment parameter. Further husband’s occupation if self-employed, working in the private sector or any other sector, shows a significant relationship with total time spent in unpaid care work as it denotes a P value of less than 0.05. Total time spent on unpaid care work also decreases as monthly income increases, which shows a significance at 0.046 level. Therefore,

we accept the alternate hypothesis as a number of previously mentioned parameters shows a relationship between time spent on unpaid care work.

4.4.7 Frame Work of Analysis

The third hypothesis seeks to measure the determinants of unpaid care work is estimated using the multiple regression model. The framework for the same and results are presented below:

$$Yi = \beta0+ \beta1+ \beta2+ \beta3+ \beta4+ \beta5+ \beta6+\varepsilon i$$

Where, Yi is the dependent variable that depicts the total unpaid care work

β0- Intercept

β1-number of children

β2-relationship status

β3-residence

β4-education

β5-husbands occupation

β6-monthly income

εi- random error term

Total unpaid care work= 1.91721+0.286 (number of children) +0.6418 (relationship status) +0.0346 (residence) + 0.1289 (education) -1.1148 (husbands occupation) +0.00000841 (Monthly income) + (13.421) Ui

The above equation depicts a strong significance between the total time spent in unpaid care works (in minutes) and determining factors such as number of children, husband's occupation and monthly income.

Chapter 5: FINDINGS, CONCLUSION AND SUGGESTIONS

Chapter 5: FINDINGS, CONCLUSION AND SUGGESTIONS

5.1. Findings of the study

Based on the study findings the following conclusions have been drawn.

1.The distribution of time spent in India on SNA activities by men is 20.19%. whereas that for women it is marked at 5.82%.

2. Time spent in extended SNA activities by women in India is 19.56% while that of men is only 2.70%

3. In India the average time spent by urban and rural women on SNA activities varies greatly, whereby rural women spend an additional time of 6.38% as compared to that of urban women 4.65%.

4. The total time spent on SNA E-SNA and non-SNA by urban and rural women in India is 99.99%.

5. Average time spent by women per day in employment and related activities is 333 minutes. Conversely men spend 459 minutes daily.

6. Women's participation in household service work is significantly higher than that of men by 299 minutes.

7. Additional time of 77.09% was spent by men in non-SNA activities in contrast to 74.10% of time spent by women.

8. A marginal variation in average time spent in caregiving is prevalent among men and women.

9. In a day the total time spent by men in employment related activities is 18.3%, self-care is 50.6%, culture and leisure activities are 10.1%, learning is 7.1%, unpaid domestic work is 1.7%, unpaid caregiving is 0.8% and unpaid volunteer work is 0.2%.

10. Which is in sharp contrast to the total time spent by women in similar activities. The variation is particularly evident for time spent in employment and related activities 4.2%, unpaid domestic work 16.9% and unpaid caregiving services 2.6%.

11. For the state of Goa it was observed that while the average time spent by men in SNA activities was 20.63%, women however spent only 7.51% of their time.

12. Inequality in participation of extended SNA activities by men was denoted as 4.93% and for women was estimated as 21.00% in Goa.

13. In India men spent 74.42% of their time on non-SNA activities while women spent 71.48% of their time

14. Differences in SNA, E-SNA and non-SNA activities is most evident among rural and urban women for the state of Goa.

15. Under specialist approach the work performed by a cook fetches a monetary value of Rs.8461.56/- which is significantly different to the value generated by fetching water, which is denoted as Rs.2.73/- per day.

16. The average value of unpaid domestic work observes a marginal variation between urban and rural regions of Goa, as well as differences between working and non-working women.

17. It is observed that the maximum share of participants belongs to the 31-45 years age category. Indicating active participation in unpaid care work during the ages of 31 to 45 years.

18. Graduates in urban regions are a little more in number (17) as compared to that of women in rural regions

19. At 0-5 income level, the number of rural women belonging to the income bracket is much higher than that of urban women. Both rural and urban women acquire a family income of 5-20.

20. Among working women 34 of them are working, while 45 of them are absent from the labour force, there could be a possibility that their husbands or any other family member provides financially for the family, due to which they choose not to the enter the workforce.

21. Husbands of non-working women that are employed in various other types of employment positions account for the largest proportion.

22. Nearly 75% that is majority of husbands of working women are employed in the government sector.

23. Women in urban areas receive a slightly higher share of availability of 1 to 2 leisure hours as compared to women in rural areas.

24. The most prominent reason for leisure availability is housing facilities denoted as 29.9%, this could be because it eases the number of times for a particular task, a significant reduction in time is responsible for leisure hours.

25. It is noted that a total of 32,730 minutes is spent on household routine work such as cleaning, washing clothes, cooking food, gardening, washing dishes, serving food, fetching water, sweeping and other activities.

26. The most amount of time spent by rural women in household work is on cooking food denoted as 4935 minutes. Which is also applicable for women in urban areas, which is denoted by 4950 minutes

27. Women in urban areas spend a significantly larger amount of time as compared to women in rural areas in caring for children, denoted at 5990 minutes.

28. The total amount of time spent by women in urban and rural regions on caring activities is 11,575. Which is lesser as compared to time spent on household work.

29. Working women spend maximum amount of their time in caring for children, denoted as 5205 minutes which is greater to the time spent by non-working women in caring for children which is 4570 minutes.

30. The total amount of time spent by working and non-working women on caring activities is 11,635 minutes. Which is lesser as compared to time spent on household work.

31. 17% of working women employ part time maids similar, to non-working women.

32. The valuation of unpaid domestic work for women in urban areas was valued at Rs.176.686/- per day.

33. Similarly, unpaid domestic work for women in rural areas was worth Rs.162.978/- per day.

34. Among working and non-working women, working women generated Rs.161.736/- per capita which is higher compared to that of non-working women performed care work worth Rs.177.928/-.

35. Similarly, the per capita value generated by women without maids is higher than those employing maids.

36. The monetary value of unpaid care work, depends on task performed or the corresponding occupation, for instance the work performed by a cook fetches a monetary value of Rs.8461.56/- which is significantly different to the value generated by fetching water, which is denoted as Rs.2.73/- per day.

5.2. Conclusion

Across the globe women spend a disproportionate amount of time on unpaid care work which is a result of perpetuated gender inequality. It is the lack of recognition and negligence on the part of society and administrative authorities to recognise the contributions of unpaid work in the system of national accounts. For decades, unpaid care work has sustained human societies, helped build each other's capabilities and most significantly contributed to the development and progress of the economy through their voluntary and selfless acts of service, often being termed as "crypto servants".

Disregard to unpaid care work results in its undervaluation, which leads to serious policy implications and various other negative long-term effects on labour outcomes, labour force participation, wages and job quality. This research paper therefore analyses the impact of unequal sharing of caring responsibilities among men and women with the help of primary and secondary sources of data. Similarly, it also depicts the variation in the structure and time spent on unpaid care work among urban and rural women. Additionally, the prevalence of "double burden" is highlighted through the study. With an aim to address the problem of undervaluation of women's unpaid care work, this study proposes the monetary estimation of value of unpaid care work by

employing the generalist and specialist cost approach. The findings of the study generate a value of Rs.339.62/- and Rs.252/- under the generalist and specialist cost approach, respectively.

The present study finds that the total average time spent by women on extended SNA activities is almost double than that of men. The inequality is further widened as women in rural areas spend a greater proportion of their time in unpaid SNA as compared to that of urban women (TUS report). The average value of unpaid domestic work observes a marginal variation between urban and rural regions of Goa, as well as differences between working and non-working women. However, substantial differences are noticed while deriving the monetary value of unpaid work. While the specialist approach provides a more realistic estimate, chances are that the generalist approach may tend to overestimate the value of unpaid work, thus the specialist approach is considered as a more appropriate measure of unpaid work. Due to high literacy rate as well as relatively high standard of living as compared to other states in India, the burden of unpaid care work is much less. Similarly, there exists equality in distribution of unpaid care work among men and women to a certain extent, for the state of Goa.

5.3. Suggestions

1. It is observed that women themselves contribute to the under-valuation of unpaid care work, thus awareness should be raised on the significance of such work and its contribution to the economy needs to be emphasized.

2. Unavailability of studies highlighting the significance of unpaid work in Goa leads to neglect and undervaluation of such work. The government should therefore devote more attention on

funding such research initiatives that recognizes such work and accordingly influences policy decisions.

3. For accurate measurement and inclusion of value of unpaid care work in national account statistics, a suitable and effective measurement tool needs to be devised. That is easily accessible and easy to operate.

4. Government should incorporate crucial information provided by the Time use survey report, in the policy making process.

5. Monetary estimates of unpaid care work could be beneficial in the valuation of unpaid care work and should therefore be incorporated in the formulation of policies.

ANNEXURE

QUESTIONNAIRE

My name is Amanda P. Fernandes, and I am currently pursuing my master's in Economics from Goa university. I am conducting a survey for my dissertation on "Recognising the burden of unpaid care work: a study of South Goa". This questionnaire comprises 3 sections and a total of 20 questions. Kindly requesting you to fill this form.

Thank you for your time.

This questionnaire is used for educational purposes and the respondent is assured of all confidentiality.

CONSENT:

I agree to be a part of the research mentioned above and give permission to have access to my records in order to obtain necessary information for the research.

Signature_____

SECTION A

1.

Age group of the respondents	☐ 15-30 yrs.	☐ 31-45 yrs.	☐ 46 -60 yrs.	
Number of family members	☐ 0-5	☐ 5-10	☐ 10-15	☐ 15 & above
Family Structure	☐ Nuclear	☐ Joint		

2. Place of residence:

☐ Urban

☐ Rural

3. Employment status:

☐ Working

☐ non-working

4. Years of schooling:

☐ Illiterate

☐ Primary

☐ Secondary

☐ Higher Secondary

☐ Degree

☐ Post graduate & above

5. Relationship status:

☐ Single

☐ Married

☐ Separated

☐ Divorced

6. Monthly family Income (In thousands):

☐ less than 5

☐ 5-20

☐ 21-40

☐ 41-80

☐ More than 80

7. Husbands Occupational status:

☐ Self employed

☐ Private

☐ Govt

☐ other _____

8. Ownership of house:

☐ Own

☐ Rental

☐ Others _____

9. Access to drinking water:

☐ Yes

☐ No

10. Access to toilet facilities:

☐ Yes

☐ No

11. Ownership of assets:

☐ House

☐ Land

☐ Vehicles

☐ Household appliances

☐ Livestock

☐ Other assets

SECTION B

1. Participation in domestic work:

ROUTINE	TIME SPENT (In hours)
☐ Cleaning the house	_____
☐ Washing clothes	_____
☐ Cooking food	_____
☐ Gardening	_____
☐ washing dishes	_____
☐ Serving food	_____
☐ Fetching water	_____
☐ Sweeping	_____
☐ others	_____

2. Care Work:

CARE	TIME SPENT (In hours)

☐ Caring for children (Bathing, feeding etc)	_____
☐ Caring for elders (Bathing, feeding etc)	_____
☐ Caring for sick (Feeding, administering medication etc)	_____
☐ others	_____

3. Whether maid is hired:

A) ☐ Yes ☐ No

B) ☐ Full time ☐ Part time

4. Number of tasks performed by maids and time spent:

ROUTINE	TIME SPENT (In hours)	CARE	TIME SPENT (In hours)
☐ Cleaning the house	_____	☐ Caring for children (Bathing, feeding etc)	_____
☐ Washing clothes	_____	☐ Caring for elders (Bathing, feeding etc)	_____
☐ Cooking food	_____	☐ Caring for sick (Feeding, administering medication etc)	_____
☐ Gardening	_____		
☐ washing dishes	_____		
☐ Serving food	_____		
☐ Fetching water	_____		
☐ Sweeping	_____		

5. Average Number of tasks & hourly wage paid to maids:

Duration	No. of task performed	Amount paid
☐ Monthly basis		
☐ Daily Basis		
☐ hourly basis		

SECTION C

1. Leisure hours:

☐ Less than 1

☐ 1 to 2

☐ 2 to 3

☐ 3 & above

2. Reasons for leisure availability:

☐ Housing facility

☐ Kitchen wares

☐ Family members

☐ Maid

3. Use of leisure time:

☐ Productive work

☐ Leisure

4. Respondents opinion on recognition of family members on unpaid care work:

- ☐ Recognised
- ☐ Underestimated
- ☐ Highly underestimated
- ☐ Neutral

_____THE END_____

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