



ESTIMATING WOMEN'S CONTRIBUTION TO THE ECONOMY: THE CASE OF BANGLADESH

PRESENTATION BY

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25 OCTOBER 2014



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ACKNOWLEDGEMENT

The study has been conducted in collaboration with Manusher Jonno Foundation (MJF).

The contribution of Development Research Initiative (DRI) in conducting the primary survey is gratefully acknowledged.

The authors would like to thank those present at the expert group consultations for sharing their views, insights and comments. The study benefited immensely from comments and support from officials of Bangladesh Bureau of Statistics (BBS) while designing the survey.

Valuable research support was received from Mohammad Afshar Ali, Research Associate; Nusrat Jahan, Former Senior Research Associate; Ziad Quader, Former Research Intern; Anika Zaman, Former Research Intern; and Anjum Noor Choudhury, Former Research Intern, CPD.



KEY FINDINGS

New evidence on women's contribution to Bangladesh economy

- On an average, a male person (aged 15 years and above) works about 2.5 hours on non-SNA activities on a typical day
- In contrast, a female person (aged 15 years and above) works about 7.7 hours on non-SNA activities – about three times higher!
- This pattern is similar in both rural and urban areas
- On an average, a female member of a HH undertakes 12.1 non-SNA activities on a typical day – the corresponding figure for a male HH member is only 2.7
- Based on replacement cost method, the estimated value of women's unpaid non-SNA (household) works was equivalent to 76.8% of GDP (of FY2013-14)
- According to the willingness to accept method, the corresponding estimate was equivalent to 87.2% of GDP (of FY2013-14)
- These figures are 2.5 to 2.9 times higher than the income of women received from paid services

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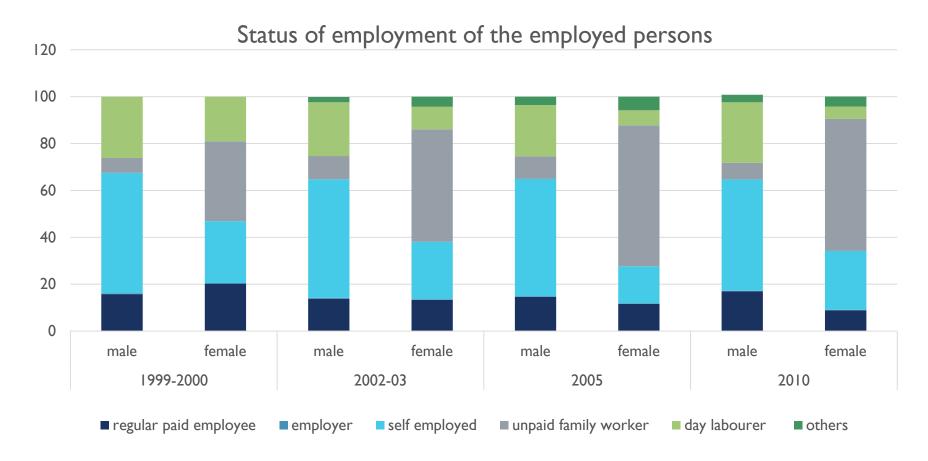


INTRODUCTION

- During the last four decades the socio-economic condition of women in Bangladesh has changed significantly. Women's employment has increased substantially, from 8.4 percent in 1983 to 36 percent in 2010.
- Notwithstanding this dynamics of change in the labour market composition, the contribution of women in the national income has continued to remain insignificant when compared to men.
- Major reasons for under-representation of the women's contribution in the national income accounts are:
 - ✓ women's presence is most prominent in the unorganized sector where pay is little or there is no payment at all.
 - ✓ the traditional method of national accounting does not include unpaid work performed by women.



INTRODUCTION



Source: Labour force surveys of BBS.



INTRODUCTION

- Non recognition of women's unpaid activity leads to undervaluation of economic contribution.
- This also lowers their social status relative to men.
- Unpaid work has thus been seen as an integral part of unequal power relations between men and women (Thomson and Walker, 1995).
- However, if women's unpaid activity is taken into account actual contribution of women in the economy will be much higher than that of the present.
- In this context the present study has attempted to:
 - Estimate time spent by both men and women for daily activities;
 - ✓ Estimate the economic value of women's unaccounted activities;
 - ✓ Make recommendations for capturing women's contribution to the economy with a view to improving women's status in the family and society.



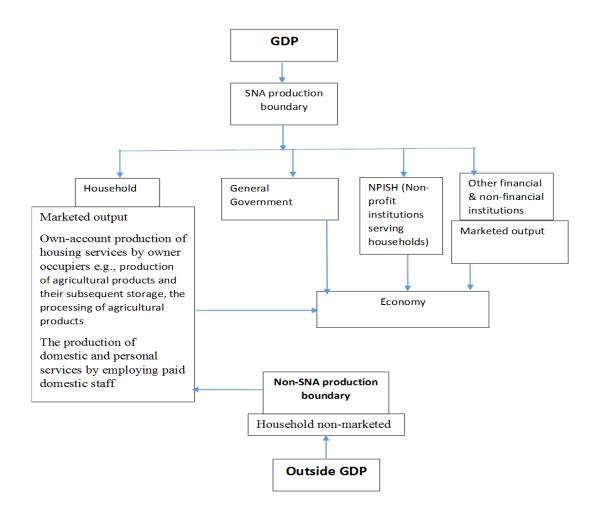
CONCEPTUAL FRAMEWORK

- In traditional economic theories, only those goods and services which have a market value and which can be transacted in exchange of money, are considered for inclusion in the national statistics such as GDP.
- Women's unpaid activities are considered as non-economic and thus remain outside this traditional framework of GDP estimation.
- Non recognition of unpaid work performed by women is a major shortcoming of traditional economic analysis.
- As a result macroeconomic policy making can be misleading and discriminatory towards women.

CONCEPTUAL FRAMEWORK

- The UN System of National Accounts (SNA), first published in 1953 excluded goods and services in the estimation of Gross Domestic Product (GDP) that were produced by households for their own consumption.
- In 1993, the UN Statistical Commission stipulated that national statistics offices in all countries need to prepare satellite accounts using Time Use data for unpaid work, particularly those performed by women.
- ➤ The Commission also emphasised that these should be in conformity with the now universally accepted 1993 SNA so that women would fall within policy frameworks.
- Since then some countries have been following the Time Use method to capture women's contribution to the economy.
- Though the SNA production boundary was expanded to include household production of goods it still excludes non-marketed services.

CONCEPTUAL FRAMEWORK: SNA AND NON-SNA ACTIVITIES





CONCEPTUAL FRAMEWORK

- In 1997, the United Nations Statistical Division (UNSD) developed International Classification of Time USE (ICATUS). These were later revised in 2003 and included a list of activities.
- According to ICATUS human activities are categorized in three broad groups:
 - ✓ **SNA activities:** Market oriented and non- market oriented economic activities falling within the SNA production boundary;
 - ✓ Non-SNA or Extended SNA activities: Non-market oriented "non-economic activities' which essentially generate services and are produced by households without undergoing monetary transactions. These activities fall outside the SNA Production Boundary, but within the General Production Boundary;
 - ✓ **Personal activities** are defined by the third person criterion, i.e. activities which cannot be delegated to others, and need to be performed by a person himself/herself.



Country	Results	Method/Remarks
India (Choudhary, Tripathy, & George, 2009)	The value of women's unpaid household work of US\$612.8 billion or 61% of GDP	Sample for interview consisted of 25 urban men and 25 rural men; and 75 urban women and 75 rural women, for a total of 50 men and 200 women
India (Hirway, 2000)	Domestic products of the selected states increased by 26% to 50% when the value of extended SNA activities was added	Time use survey covered 18591 households. Prevailing wage rates of workers of various categories used for valuation
Nepal (Shrestha, 2006)	GDP would nearly double if the contribution of women's unpaid household work were included: women's work is equivalent to about 91.3% of the country's GDP.	A total of 150 respondents were interviewed, consisting of 120 housewives or married females and 30 married men
Vietnam (Thu & Efroymson, 2008)	Unpaid women contribution is \$46.04 billion which is \$1.3% of GDP	Monthly average wage



Country	Results	Method/Remarks
Bangladesh (Hamid I 996)	 ✓ The percentage of national production attributed to women would increase significantly from 25% to 41% if unpaid work were included in the national economy estimates. The proportion contributed by men automatically would fall from 75% to 59%. ✓ Under the System of National Accounts production boundary definitions 95% of nonmarket production is excluded. ✓ GDP of Bangladesh (1989/90) would increase by 29% if unpaid work were included. ✓ Conventional GDP estimates capture 98% of men's production but only 47% of women's production. ✓ Of the total time spent on the non -market work, women contribute 89% and men 11%. 	, ,
Bangladesh (Efroymson, Biswas and Ruma, 2007)	By applying standard government salaries to the number of hours worked by the 53.2 million women involved in informal work as of 2004 the study found that the total contribution to the economy would amount to USD 91 billion	Surveyed a total of 315 women and 315 men
Bangladesh (Titumir and Rahman 2014) (Chatun et al. (2014): Estimating Vision 1988)	 ✓ Cost of domestic work is 3.25 percent (replacement cost method) and 10.75 percent (opportunity cost method) of GDP FY12-13 Women's Contribution to Bangladesh Economy 	Survey of 520 households in seven districts; Replacement cost and Opportunity cost methods for valuation



Country	Results	Method/Remarks
Australia (1992, 1997)	 Unpaid household work accounted for 91 per cent of the estimated value of total unpaid work in 1997. Value of total unpaid work in 1997 was 48 per cent of GDP 	
Canada (1961-1992, 1992-1998)	The estimated value of unpaid work in Canada in 1998 was 33% of GDP and in 1992 36% of GDP Unemployed women contributed 36% in 1998. Those employed contributed at 27%.	to assess value
United	Value of unpaid work was between 40% and 120% of GDP	Experimental household
Kingdom (1995)		Satellite account
Finland (2001)	GDP is increased by 40% and household consumption by almost 60% when excluded production in the national accounts are included.	Finnish Household Satellite Account has been compiled in compliance with Eurostat and SNA93 guidelines
Germany (2001)	HH production for 2001 was roughly the equivalent of the value added of German industry and the trade, hotel and catering and transport segments together (820,000 million Euros).	Compiled a household satellite system on the basis of the time use surveys.



Country	Results	Method/Remarks
Bulgaria (1988)	Value of production in non-SNA activities were 47% and 71% of GDP based on net wages and gross wages, respectively.	Value of labor and production in non-SNA activities (as percent of GDP)
Denmark (1987)	Value of labor inputs in non-SNA activities based on labor costs was 37% of GDP, which was 16 percentage points higher than those based on net wages (21%). Value of production in non-SNA activities based on labor costs is 43% of GDP.	Net wages are calculated as gross wages for unskilled manual workers minus the average tax paid by these workers
France (1985)	Value of labor inputs in non-SNA activities based on gross wages and labor cost was 33% and 36% of the GDP respectively	Opportunity cost
Norway (1990, 1992)	Value of labor inputs in non-SNA activities was 38% of the GDP. Value of unpaid work was estimated at 39% of GDP.	Labour cost; Opportunity cost
Netherlands (1990)	Value of unpaid work was estimated at 108% of GDP	Opportunity cost
Austria (1992)	Value of unpaid work was estimated at 138% of GDP	Opportunity cost
Switzerland (1997)	Value of unpaid work was estimated at 49 % of GDP	Opportunity cost
Japan (1996)	Value of unpaid work was estimated at 23% of GDP	Opportunity cost
New Zealand (1990, 1999)	Value of unpaid work was estimated at 66 % of GDP	Opportunity cost



Cost of unpaid work

- Previous studies on estimating unaccounted work have limitations.
- Hamid (1994) surveyed only village households;
- Efroymson, Biswas, & Ruma (2007) surveyed a total of 315 women and 315 men; valuation is done by applying standard government salaries to the number of hours worked by women and men;
- Titumir and Rahman 2014) values only the cost of domestic work; survey is limited to only 520 households in seven districts.

Time use survey

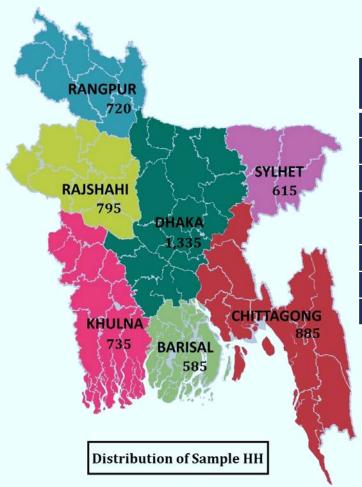
- ➤ Pilot Time Use Survey 2012 was conducted by Bangladesh Bureau of Statistics (BBS) to improve the statistical database of the country. The survey did not aim to estimate the cost of unaccounted work performed by women.
- Thus the present study of CPD and MJF is a comprehensive one which conducted time use survey and estimated women's contribution to the economy.

- The overall data generation
 - ✓ primary data collected through questionnaire based HH survey
 - √ focus group discussions
 - ✓ secondary data collected from published national and international sources
- Methodology for primary survey at the HH level was crafted with the support of technical and professional expertise (including Statisticians)
- Two stage cluster sampling method (stratum and primary sampling unit or PSU) was used to provide nationally representative estimates
- Therefore, at first, total number of PSUs were determined for the survey using standard sample size determination formula and then households from the PSUs were selected using random method
- The sampling method allowed to estimate statistics up to division level



- The survey covered:
 - √ all 64 districts in Bangladesh (both urban and rural PSUs)
 - ✓ 5,670 HHs located in 378 PSUs (15 HHs from each PSU)
 - ✓ total population: 25,622
- Detail information (including demographic, economic, social, time-use, and opinion) of 8,320 female and 5,320 male (aged 15 years and above) were collected
- All the female members of 15 years and above, and the head/ senior/ adult male member of the household were interviewed with structured questionnaire
- The survey was conducted during March-May 2014





Distribution of PSUs at Division Level

Division	No of PSU		
	Total	Rural	Urban
Barisal	39	16	23
Chittagong	59	34	25
Dhaka	89	55	34
Khulna	49	25	24
Rajshahi	53	29	24
Rangpur	48	26	22
Sylhet	41	17	24
Total	378	202	176

- The questionnaire included questions on the following areas:
 - ✓ general information of all household members
 - ✓ socio economic information of households members
 - ✓ information on household condition
 - ✓ education status of all member aged 15 years and above
 - ✓ unpaid 'non-SNA' activities undertaken by the head male member of a household (household head/most knowledgeable male) on a typical day
 - All activities undertaken on a typical day by all the female members of the household aged 15 years and above
 - ✓ replacement, willingness to accept valuation, and opportunity costs of the unpaid work undertaken by female member aged 15 years and above and
 - ✓ perception of the most knowledgeable female member (aged 15 years and above)of the household

Activity code:

The survey used activity code by UN Trial International Classification of Activities for Time Use Statistics (ICATUS)

SNA Activities (01-05)

- ✓ 01 Work for corporations/quasi-corporations, non-profit institutions and government (formal sector work)
- √ 02 Work for household in primary production activities
- √ 03 Work for household in non-primary production activities
- √ 04 Work for household in construction activities
- √ 05 Work for household providing services for income

Non- SNA Activities (06-08)

- √ 06 Providing unpaid domestic services for own final use within household.
- √ 07 Providing unpaid care giving services to household members
- √ 08 Providing community services and help to other households



Activity code:

The survey used activity code by UN Trial International Classification of Activities for Time Use Statistics (ICATUS)

Personal Activities (09-15)

- √ 09 Learning
- √ 10 Socializing and community participation
- ✓ II Attending/visiting cultural, entertainment and sports events/venues
- ✓ 12 Hobbies, games and other pastime activities
- ✓ 13 Indoor and outdoor sports participation and related courses
- √ 14 Mass media
- √ I5 Personal care and maintenance



- As a quality control measure a number measures were undertaken:
 - ✓ Interviews with professionals and experts
 - ✓ Expert group meeting on questionnaire
 - ✓ Consulting with professionals of Bangladesh Bureau of Statistics (BBS)
 - ✓ Preparing survey manual
 - ✓ Pretesting of questionnaire
 - ✓ Training and monitoring of the enumerators
 - ✓ Close supervision during the data collection
 - ✓ Data cleansing



Estimating valuation of unpaid work (non-SNA) used following formula

 $V = W \times H \times N$

V=Monetary Value (shadow pricing) of Unpaid Women Work

W= Wage Rate/Time or Work

H= Time/ Work done

N = No. of Women

- A shadow price was assigned for estimating the value by using two methods:
 - Replacement cost method
 - ✓ Willingness to accept method
- Replacement cost is a widely used method for estimating unaccounted (unpaid/non-SNA) contribution in the developing countries
- Some of the studies also used willingness to accept method
- In this study, these two separate methods were used to check robustness of estimation



Replacement cost method

- Mainly, two types of replacement cost methods are used generalist and specialist.
- The present study has used the generalist replacement cost method since there is hardly any specialist sector is developed in Bangladesh to conduct the household services.
- For the replacement cost method, the shadow wage (paid in the respective regions) for similar type of work was used
- Data have been collected by asking the following question:
 - ✓ If you or your neighbour hires someone to do the job instead of doing it by yourself or your neighbor, how much would you have to pay monthly for this work for the assigned time daily (Tk.)?

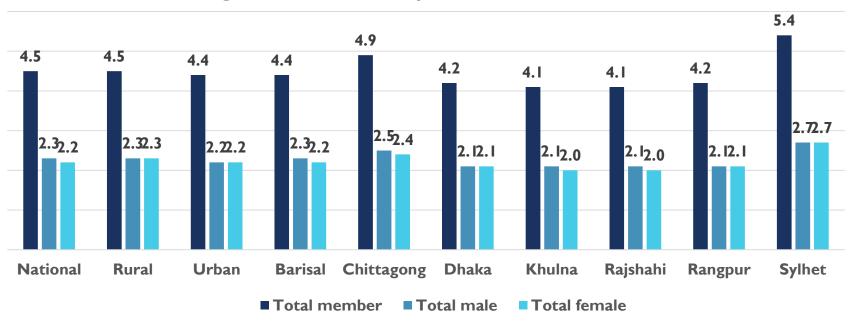


Willingness to accept method

- In this method, the wage which the respondent woman was willing to accept for the respective work (for outside her own household) was used to estimate the cost
- Data have been collected by asking the following question:
 - ✓ If someone wishes to pay you for all unpaid work you do daily, how much are you willing to accept per month for this work, considering the type of work, your education, age and time spent for the work (in Tk.)?

METHODOLOGY: PROFILE OF HH

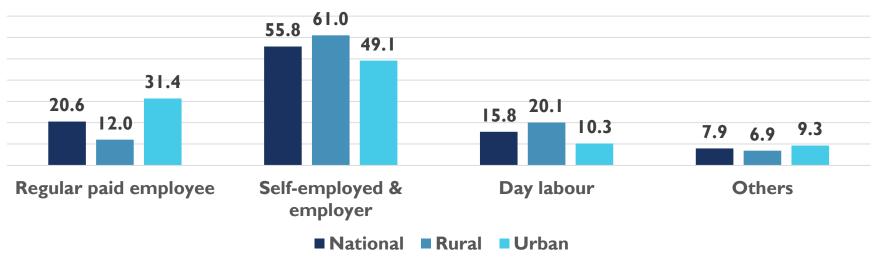
Average size of household by number of household members



- Average household size in Bangladesh was found to be 4.5
- These estimates are consistent with a number of recent national surveys including LFS, 2010 (4.5) and HIES, 2010 (4.5)
- The figure of the population census 2011 was 4.4

FINDINGS OF THE STUDY: EMPLOYMENT STATUS

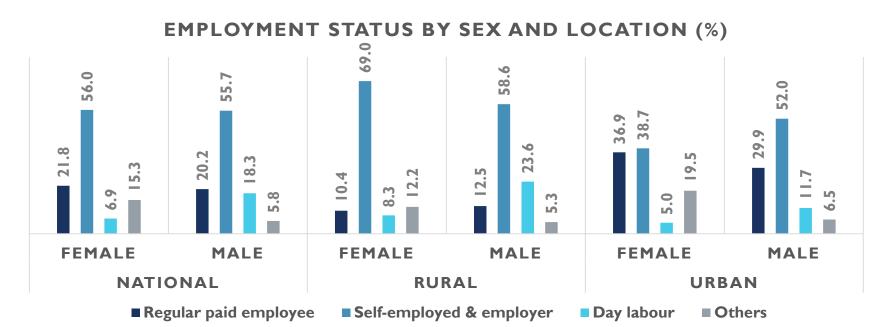
Employment status of total employed people (%)



- In Bangladesh, a large section of employed people are either self-employed or employer (55.8%)
- Share of regular paid employee is relatively higher in the urban area (31.4%)



FINDINGS OF THE STUDY: EMPLOYMENT STATUS

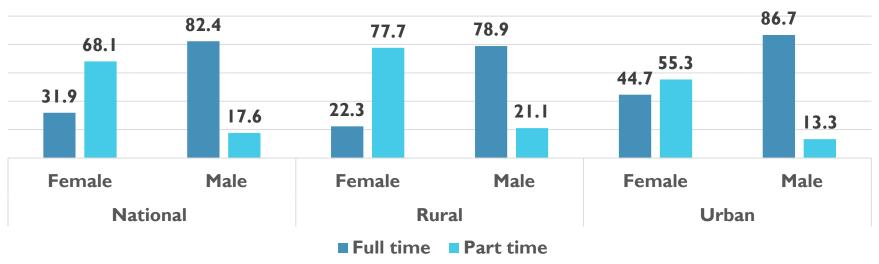


- Share of regular paid employee among female is relatively higher (compared to male), particularly in urban area
- In contrast, share of day labour is higher for male



FINDINGS OF THE STUDY: EMPLOYMENT STATUS

Pattern of work by employed people (%)

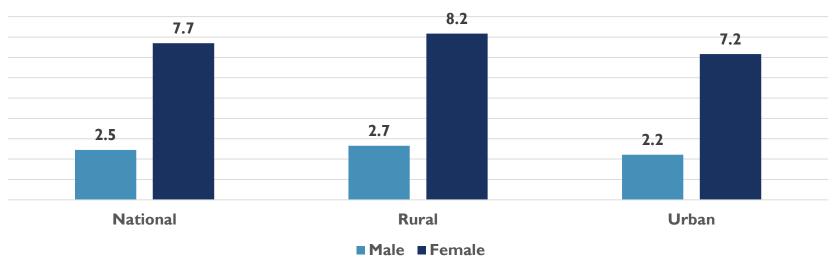


- Women are mostly engaged in part-time jobs about two-third of total female employment is part-time in nature
- In contrast, about 82.4% employed male is engaged in full-time jobs



FINDINGS OF THE STUDY: TIME USE

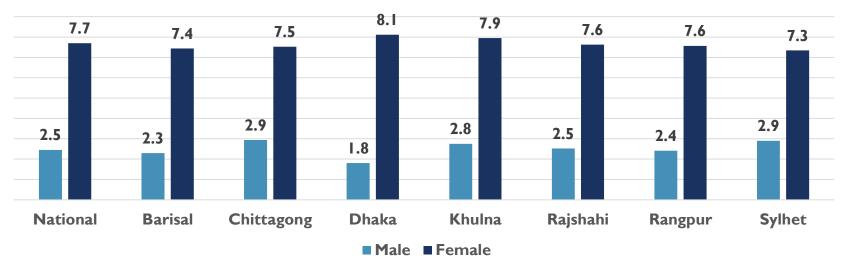
Average Time Spent for Non-SNA Works (Hours)



- On an average, a male person (aged 15 years and above) works about 2.5 hours on non-SNA activities on a typical day
- In contrast, a female person (aged 15 years and above) works about 7.7 hours on non-SNA activities – about three times higher!
- This pattern is similar in both rural and urban areas

FINDINGS OF THE STUDY: TIME USE

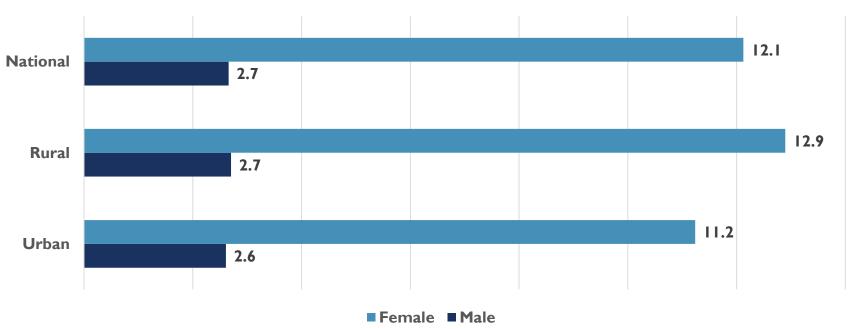
Average Time Spent for Non-SNA Works, by divisions (Hours)



- Women in Dhaka division work for the highest number of hours (on an average) on non-SNA activities
- Curiously, in Dhaka division men work for the lowest number of hours (on an average)
- It appears that there is a strong negative correlation between the two groups

FINDINGS OF THE STUDY: NUMBER OF NON-SNA WORKS

Average Number of non-SNA Works undertaken on a typical day



Source: Estimated from the household survey conducted by CPD

 On an average, a female member of a HH undertakes 12.1 non-SNA activities (according to ICATUS classification) – the corresponding figure for a male HH member is only 2.7



FINDINGS OF THE STUDY: NUMBER OF NON-SNA WORKS

- The range of non-SNA activities performed by female family members is wide (according to ICATUS classification)
- In contrast, the non-SNA activities performed by male members are highly concentrated in a handful of activities - shopping for food, shopping for other items, tending to children, household planning and caring for livestock (only in rural areas)
- This pattern does not vary much between rural and urban areas

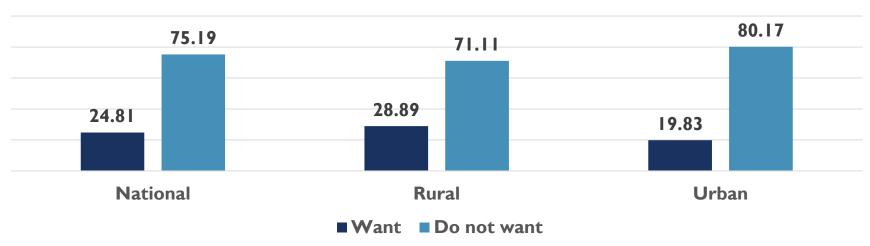
FINDINGS OF THE STUDY: VALUE OF NON-SNA WORK

Valuation of Unpaid (Non-SNA) Activities

- Based on replacement cost method, the estimated value of women's unpaid non-SNA (household) works was equivalent to 76.8% of GDP (of FY2013-14)
- According to the willingness to accept method, the corresponding estimate was equivalent to 87.2% of GDP (of FY2013-14)
- These figures are 2.5 to 2.9 times higher than the income of women received from paid services

FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: WILLINGNESS TO BE INVOLVED IN PAID WORKS

Women's willingness to be involved in paid work for those who are not currently involved in paid work (%)

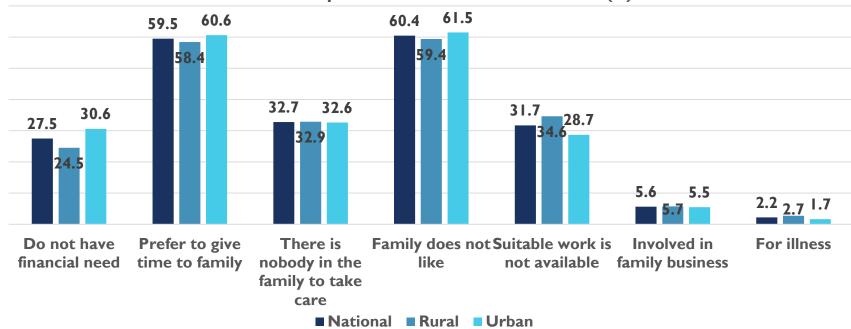


- Among the women who are not currently involved in paid work, only one-fourth like to be involved in paid works
- Curiously, the willingness is higher in rural areas (28.9%) compared to urban areas (19.8%)



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: REASONS FOR NOT BEING INVOLVED IN PAID WORKS

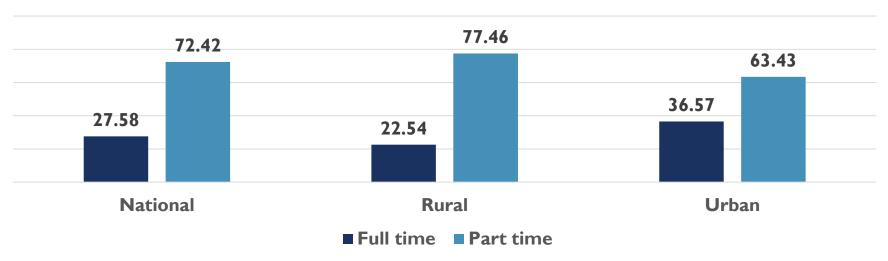
Reasons for not being involved in paid work for those who currently are not involved in paid work & do not want to be (%)



- About 60.4% women who do not want to be involved in paid works, told that they
 do not want to be involved in paid works as 'their families do not like'. Interestingly
 this perception was more common in urban areas
- Among other reasons, 'prefer to give time to family' was cited by 59.5% respondents

FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: CHOICE OF WORK

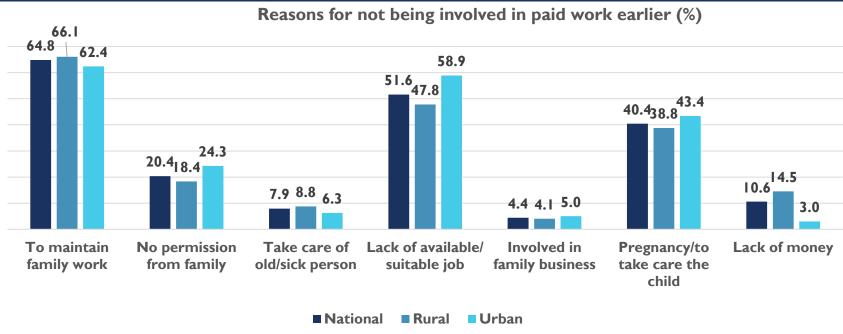
Type of work the women want to be involved in paid work who are currently not involved in paid work but want to be involved(%)



- Women those who are currently not being involved in paid work, but would like to be involved in paid work, mostly looking for part-time job involvement (72.4%)
- On a comparative scale, women in urban areas prefer full time jobs



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: REASONS FOR NOT DOING PAID WORK

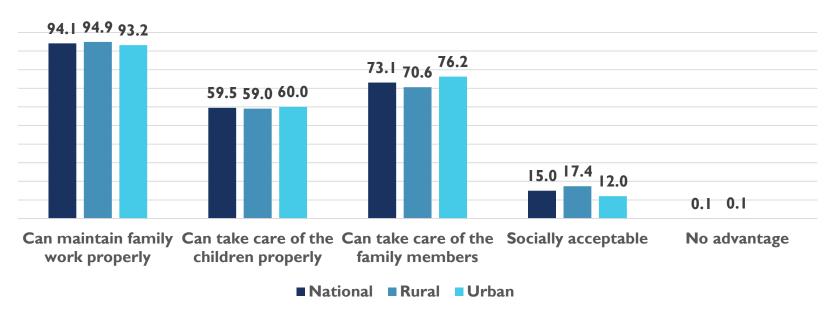


- Among those who want to be involved in paid work, about 64.8% women told that they could not do paid work due to maintaining family work
- Among other reasons lack of available/suitable jobs (51.6%) and pregnancy/to take care of children (40.4%) were found to be more common



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: BENEFITS OF BEING INVOLVED IN UNPAID WORK ONLY

Benefits of being involved in unpaid work only (%)



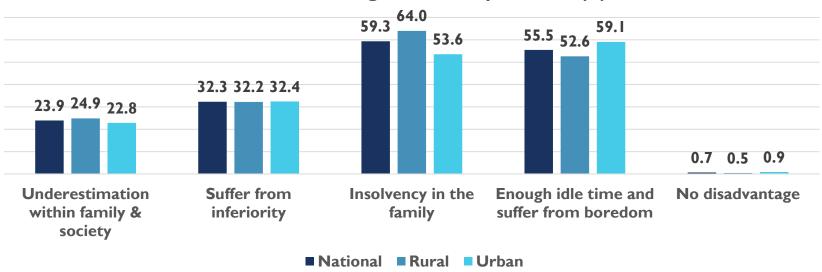
Source: Estimated from the household survey conducted by CPD

 Those who are involved only in unpaid work mentioned that they could maintain family work and take care of the children properly



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: PROBLEMS OF FULL TIME UNPAID WORK





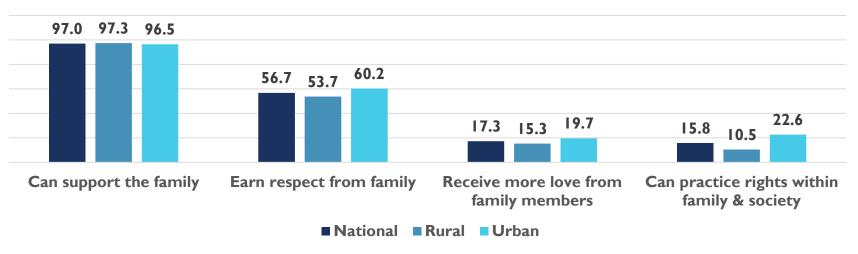
Source: Estimated from the household survey conducted by CPD

 Insolvency in the family features as a major problem for not being involved in paid work



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: POSITIVES OF PAID WORK

Positive effect of being involved in paid work (%)



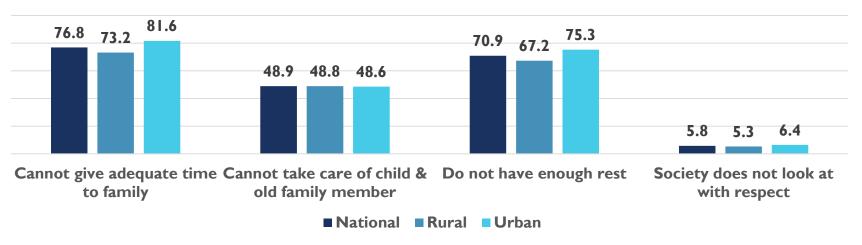
Source: Estimated from the household survey conducted by CPD

 Women who are involved in paid work find the ability to support family as the most common benefit



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: NEGATIVES OF PAID EFFECT

Negative effect of being involved in paid work (%)

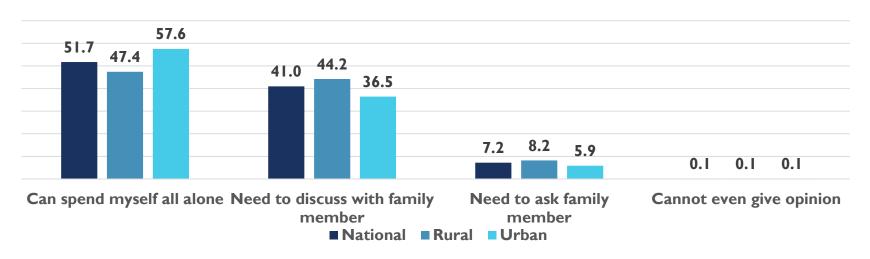


- Women who are involved in paid work also find inadequate time for family
- They also can have little time to rest



FINDINGS FROM PERCEPTION BASED QUESTIONNAIRE: FREEDOM OF SPENDING

Freedom to spend income by women (%)



- About 51.7% of women who are involved in paid work can spend their earned income by themselves
- However, about 41.0% need to discuss with family member(s) while only 7.2% need to seek permission
- These phenomena are more common in rural areas

RECOMMENDATIONS

To the government

- Comprehensive Time Use Survey should be conducted by the BBS on a regular basis in order to show the time use pattern of both men and women in various activities.
- The government should undertake policy reforms towards changing the estimation practice of SNA so that women's unaccounted activities are reflected in the GDP.
- In doing so the government can form a committee consisting of economists, statisticians, gender specialists, advocacy groups and relevant stakeholders who can give concrete input for developing a methodology to include women's unaccounted contribution in the GDP.
- The government should undertake programmes which may contribute in decreasing the workload of women in the household. For example, increased accessibility of drinking water, natural gas for cooking and setting up of day care centres for children can reduce the workload and time of women. This in turn can help them either to be engaged in the formal economy and make their contribution to economy more visible or to have their own personal time.
- The government should take legal measures for eliminating wage discriminations against women in all sectors. One of the reasons for lower contribution in the national economy by women is due to lower wages of women. This will also make women's economic contribution more appropriately measurable.

RECOMMENDATIONS

To NGOs, women organizations and media

- Discrimination against women in terms of lower wages for the same work should be eliminated. Women's organisations and NGOs should play active role towards reducing the wage differentials.
- The existence of the family is jeopardized if household activities are not performed. Thus the value of household work cannot be undermined. Women rights organizations should highlight this so that the decision makers take into cognizance the economic value of household and other essential unaccounted work while formulating policies.
- The precondition for recognition of women's contribution to the economy is the change of overall attitudes, values and perceptions towards women. NGOs, women rights organisations and media can play an active role in sensitizing not only the common people but also the policymakers through organization of workshops, seminars and popular write up.



RECOMMENDATIONS

To think tanks and academia

- Think tanks should conduct in-depth sectoral studies on women's contribution to various sectors o the economy and disseminate the findings among policy makers, politicians, women organisations, media and broader sections of the society. Such findings will help policy makers to formulate realistic policies and programmes.
- Universities should introduce studies women's economic contributions, both within and outside household. The attitude towards research and studies on women's issues has to be changed.

To the private sector

- The private sector should come forward to set up child day care centres and hostels for working women in order to facilitate women's participation in formal work.
- They can provide training to women so that they can take part in high skilled jobs and the wage differential between male and female worker is reduced.



THANK YOU