

Women's Contribution To The Economy Through Their Unpaid Household Work

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Introduction

A significant contribution of a large section of society, that is women, towards national economy remains unvalued or at best undervalued owing to the limited scope of the definition of 'economic activity' as used in the national income accounting. For the purpose of calculating national income, market value of goods and services which are sold in the market only are taken into consideration. Much of the household and community work which is not marketed and thus has no market value attached to it remains unvalued. Hence, a significant portion of the invisible work being done in the society remains unknown and a large number of people, especially women who are engaged in this work are deprived of recognition or monetary benefit.

Many studies have been undertaken on household production and valuation of unpaid work in household production, particularly as they relate to gender issues. In this paper, an attempt has been made to discuss various aspects of unpaid household work such as its treatment in the system of National Accounts, and the methodologies of its valuation. With the help relevant data from Indian Time Use Survey, quantification of unpaid work in the Indian economy has been attempted for two states, namely Haryana and Gujarat.

2. The general production boundary of System of National Accounts (SNA), 1993

Economic production may be defined as an activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods or services. There must be an institutional unit that assumes responsibility for the process and owns any goods produced as outputs or is entitled to be paid, or otherwise compensated, for the services provided. A purely natural process without any human involvement or direction is not production in an economic sense.

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For example, the unmanaged growth of fish stocks in international waters is not production, whereas the activity of fish farming is production. (para 6.15. SNA,1993). While production processes that produce goods can be identified without difficulty, it is not always so easy to distinguish the production of services from other activities that may be both important and beneficial. Activities that are not productive in an economic sense include basic human activities such as, eating, drinking, sleeping, taking exercise which are not possible for one person to buy or another person to perform instead. Paying someone else to take exercise is no means to keep fit. On the other hand activities such as washing, preparing meals, caring for children, the sick, or aged are all activities that can be provided by other units and therefore fall within the general production boundary. Many households employ paid domestic staff to carry out these activities for them. (para 6.16, SNA 1993)

3. The production boundary in the SNA, 1993

The production boundary in the system is more restricted than the general production boundary. Production accounts are not compiled for household activities that produce domestic or personal services for own final consumption within the same household except for services produced by employing paid domestic staff. Otherwise, the production boundary in the system is the same as the more general one given in the section 2 above (para 6.17, SNA, 1993).

Activities that fall within the production boundary of the system may therefore, be summarised as follows :

- The production of all individual or collective goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services.
- The own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation;
- The own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff. (para 6.18, SNA 1993)

4. The production boundary within households as per SNA, 1993

Although personal and domestic services produced for own consumption within households fall outside the boundary of production used in the System of National Accounts, further guidance have been given with respect to the treatment of certain kinds of household activities

which may be particularly important in some developing countries (para 6.23, SNA, 1993).

4.1. Own-Account production of goods

The System includes production of all goods within the production boundary. At the time the production takes place it may not even be known whether, or in what proportions, the goods produced are destined for the market or for own use. The following types of production by households are therefore, included whether intended for own final consumption or not (para 6.24. SNA, 1993):

- The production of agricultural products and their subsequent storage, the gathering of berries or other uncultivated crops, forestry; wood-cutting and the collection of firewood, hunting and fishing;
- The production of other primary products such as mining salt, cutting peat, the supply of water etc.;
- The processing of agricultural products; the production of grain by threshing; the production of flour by milling; the curing of skins and the production of leather; the production and preservation of meat and fish products; the preservation of fruit by drying bottling etc; the production of dairy products such as butter or cheese; the production of beer wine or spirits; the production of baskets or mats etc.
- Other kinds of processing such as weaving cloth; dress making and tailoring, the production of footwear, the production of pottery, utensils or durable; making furniture or furnishings etc.

The storage of agricultural goods produced by households is included within the production boundary as an extension of the goods-producing process. The supply of water is also considered a goods-producing activity in the context. In principle, supplying water is a similar kind of activity to extracting and piping crude oil.

4.2 The Use Of Consumption Goods

In general the use of goods within the household for direct satisfaction of human needs or wants cannot be treated as production. This applies not only to materials or equipment purchased for use in leisure or recreational activities but also to foodstuffs purchased for the preparation of meals. **The preparation of a meal for immediate consumption is a service type activity and is treated as such in the system and in International Standard Industrial Classification (ISIC). It, therefore, falls outside the production boundary when the meal is**

prepared for own consumption within the household. The use of a durable good, such as a vehicle, by persons or households for their own personal benefit or satisfaction is intrinsically a consumption activity and should not be treated as if it were an extension, or continuation, of production (para 6.28. SNA, 1993).

4.3. Treatment of unpaid domestic and personal services produced for own final consumption within households

The own-account production of domestic and personal services by members of the household for their own final consumption has traditionally been excluded from measured production in national accounts. It is useful to list those domestic and personal services for which no entries are recorded in the accounts when they are produced and consumed within the same household (para 6.20. SNA, 1993):

- the cleaning, decoration, and maintenance of the dwelling occupied by the household including small repairs of a kind usually carried out by tenants as well as owners;
- the cleaning, servicing, and repair of household durable or other goods, including vehicles used for household purposes;
- the preparation and serving of meals;
- the care training and instruction of children;
- the care of sick infirm or old people; and
- the transportation of members of the household or their goods.

5. The reasons for not including unpaid domestic and personal services production boundary of SNA 1993

The reasons for not imputing values for unpaid domestic and personal services produced and consumed within households are summarized as follows (para 6.21. SNA, 1993):

- The own-account production of services within households is a self-contained activity with limited repercussions on the rest of the economy. The decision to produce a household serviced entails a simultaneous decision to consume that service. This is not true for goods of agricultural goods, it does not follow that it intends to consume them all. Once the crop has been harvested, the producer has a choice of how much to consume, how much to store for future consumption or production, and how much to offer for sale or barter on the market. Indeed, although it is customary to refer to the own-account production of goods, it is not possible to determine at the time the production takes place how much of it will eventually be consumed. For example if an agricultural crop turns out to be better than expected the household may dispose of some of it on the market

even though it may have been originally intended all for own consumption. The kind of possibility is non-existent for services.

- As the vast majority of household domestic and personal services are not produced for the market, there are typically no suitable market prices that can be used to value such services. It is therefore extremely difficult to estimate values not only for the outputs of the services but also for the associated incomes and expenditures which can be meaningfully added to the values of the monetary transactions on which most of the entries in the accounts are based;
- Imputed values have a different economic significance from monetary values. The imputed incomes generated by the imputed production would be difficult to tax in practice. They would have to be shown as being all spent on the same services. However, if the incomes were to be available in cash, the resulting expenditures might be quite different. For example, if a household member were offered the choice between producing services for own consumption and producing the same services for another household in return for remuneration in cash, the paid employment would likely be preferred because of the greater range of consumption possibilities it affords. Thus, imputing values for the own-account production of services would not only be very difficult, but would yield values which would not be equivalent to monetary values for analytic or policy purposes

Thus the reluctance of national accountants to impute values for the outputs, incomes and expenditures associated with the production and consumption of domestic and personal services within households is explained by a combination of factors, namely the relative isolation and independence of these activities from markets, the extreme difficulty of making economically meaningful estimates of their values and the adverse effects it would have on the usefulness of the accounts for policy purposes and the analysis of markets while the market could also have unacceptable consequences for labour force and employment statistics. According to the International Labour Organisation (ILO) guidelines, economically active persons are those engaged in production included within the boundary of production of the system. If that boundary were to be extended to include the production of own-account household services virtually the whole adult population would be economically active and unemployment eliminated. In practice it would be necessary to revert to the existing boundary of production in the system so as to obtain meaningful employment statistics.

6. Difference in the treatment of household production in SNA 1968 and SNA 1993

The production boundary in the 1993 SNA is only slightly different from the one in the 1968 SNA. In defining the production boundary the 1993 SNA draws on the distinction between goods and services. It includes the production of all goods within the production boundary and the production of all services except personal and domestic services produced for own final consumption within households produced for own final consumption within households (other than the services of owner occupiers and those produced by employing paid domestic staff).

With regard to own-account production of goods by households, the 1993 SNA has removed the 1968 SNA limitations which excluded the production of goods not made from primary products, the processing of primary products by those who do not produce them, and the production of other goods by households who do not sell any part of them on the market.

The coverage of own account production is clarified. The storage of agricultural goods produced by households is included within the production boundary as an extension of the goods producing process, as is supply of water (water-carrying).

The 1993 SNA, excludes from the production boundary the production of services by households for own final consumption. Included however, is the production of services of owner-occupied dwellings and the production of services for own final consumption by employing paid domestic staff. The 1993 SNA explains that in the central framework no values are recorded for unpaid domestic or personal services produced within households because the production of such services within households is a self-contained activity with limited repercussions on the rest of the economy. There are typically no prices that can be satisfactorily used to value such services, and the estimated values would not be equivalent to monetary values for analytic or policy purposes. The 1993 SNA does, however, suggest that in satellite accounts an alternative concept of gross domestic product (GDP) be elaborated which is based on an extended production boundary, including estimates for household production of services for own use.

7. Reservations against the exclusion of unpaid household services in SNA 1993 for computation of gross domestic product

The reasons mentioned in the literature for the exclusion of most of household production from National Accounts can be summarised as follows: firstly it is argued that for statistical purposes it is difficult to

measure household production and to value its products. Secondly, it is pointed out that core estimates of national accounts (e.g. GDP) and time series of those estimates have established methods of application that have been developed without household products. Therefore "including it would reduce the analytic usefulness of the accounts for policy purposes and the analysis of markets and market disequilibria – the analysis of inflation, unemployment, etc." It is also argued that household production is relatively isolated from, and independent of, market activities.(SNA 6.22).

Several researchers have challenged these arguments. Referring to the earlier literature, Chadeau (1992) identifies a host of reasons that speak in favour of recognising household production in national accounts. First of all, national income is significantly underestimated when income in kind provided by productive household activities is excluded and final consumption gives a misleading picture of "real" consumption when the goods and services produced by unpaid labour of household members are excluded. This means that conventional GDP does not in fact properly measure economic activities. Measured growth rates are biased upwards as more women move into the labour market while decreasing their input in household production. The economic contribution of women to production is grossly underestimated because women perform about two-thirds of all housework.

Ironmonger (1989) has pointed out that market disequilibria have their counterpart in household production. The related argument rests on the premise that unpaid work is counter-cyclical. In other words, when the market economy is growing rapidly, activity in the non market sector grows more slowly or declines, and vice versa. The market sector draws resources from the non-market sector in periods of expansion and releases them in periods of decline. Wood (1997) questions the assumption of the isolation and independence of household production. "Since such labour has never been measured or analysed in any consistent way, on what basis do the SNA's authors assert its relationship to market".

Statistics Canada (1995) also points out other uses that "information on unpaid work can serve: i) to monitor and describe more completely how resources are used; ii) to foster a greater understanding of the economy and of the links between its market and non-market sectors; iii) to provide information on what types of work are undertaken, what goods and services result; what costs are incurred, who provides benefits; and iv) to inform the public debate and help in the formulation of public policy". This information opens up new insights for analysis of household consumption.

The relationship between household production and market production can be exemplified by the following scheme, which is based on

the ideas of Ironmonger (1997). Households can obtain goods and services by buying them from the market or by producing them themselves. In the latter case it is also possible to use some market inputs, capital, or labour.

For example, household members can buy a laundry service from the market (cell 1) or they can wash their laundry at home using their own labour and own washing machine (cell 4). They can also go to a self-service laundry and use market capital (washing machine) and their own labour (cell 3), or they can hire someone (housekeeper) to do the laundry at home using their own capital (cell 2).

Alternative Ways Of Producing Goods And Services For Households

Use Of Capital				
Use Of Labour		Market(Monetary Production)	Household	
		Market(Monetary Production)	1	2
		Household	3	4

At present only market (monetised) inputs are known because these are recorded in national accounts. If we also had information on production by households, we would be able to see the links between market and household production and monitor their changes over time.

8. Recommendations of SNA 1993 as regards Household Production : Household Satellite Account

While the rationale for excluding these activities could be contested, the coverage of the SNA as defined, is quite explicit. In the SNA, the household integrated economic accounts show the production, income flows, use of income, capital accumulation, financial transactions and stock of assets of the households. These accounts are compiled on the basis of household activities within the production boundary. It does not include own-account production of services and the imputed income or consumption that emanates from this production. **The SNA 1993 has, however, recommended compilation of household satellite accounts with the SNA as the central framework for various types of analyses related to assets and resources.**

The Household Satellite Accounts is designed as an extension of the Household Integrated Economic Accounts to integrate the value of household own-account production of services and the value of unpaid work of household members as volunteers in non profit institutions serving households (NPISH). The satellite accounts will provide a useful tool in linking economic flows with human resource development.

In the compilation of household satellite accounts SNA 1993 framework will remain with all the treatment of assets and transactions. In addition several considerations have to be taken into account. Among them are :

- taking consumer durables such as, family car, refrigerator, washing machine, as assets;
- production of own account services is a production activity;
- value of own account services is included in household consumption expenditure;
- volunteer work is employment with corresponding imputed income;
- disaggregation of household by type of households depending upon the focus of analysis; and
- other disaggregation of households, assets and transactions for analysis and policy making.

9. Methodology for Valuation of Unpaid Work

9.1. Market and Non-Market Output

SNA 1993 identifies institutional units that are market producers and non market producers. Market producers are financial and non-financial corporations, quasi corporations, and unincorporated household enterprise whose outputs are sold in the market and the products are valued at prices that are economically significant. Non market producers also produce goods and services but the products are not valued at prices that are economically significant. The institutions classified as non market producers are general government, private non profit institutions and household subsistence producer.

The value of output of market goods consist of the cost of the value of goods and services used for production and value added of the different factors of production. This consists of the following:

- the cost of the goods and services used in the process of production (intermediate input);
- cost of labour (compensation);
- consumption of fixed capital (use of fixed assets);

- taxes net of subsidies on production; and
- operating surplus (returns to natural and financial assets used for production and imputed compensation of operator and unpaid household worker).

Non market output is valued at prices that are not economically significant and excludes operating surplus. However, in the case of goods produced by subsistence production, their value might still include some elements of operating surplus especially if output is measured by multiplying volume of harvest by farm gate prices. The treatment of labour input (work) in market and non market production is shown in chart I.

Chart I. Relationship between producers and work

Institutional producers	Market		Non Market				
	Corporation, Quasi Corporation	Household	Household		Non Profit institution		Government
Work		Household unincorporated enterprises	Household subsistence producers	Household own account producers of household services	Non profit producing goods and services with employed worker	Non profit institution producing (community and neighborhood association)	General government at national and subnational levels
	SNA	SNA	SNA	Non SNA	SNA	Non SNA	SNA
Paid	Employment with compensation /membership in Corp Board	Compensation as employee; mixed income			Employment/ volunteer with allowance		Employment and elective position
Unpaid (imputed value)		Incorporated in mixed income of household	Incorporated in mixed income of household				
Unpaid (not valued)				Equivalent to value of services	Free volunteer services	Free volunteer services	

The value of supply and demand of goods and services in the economy is by definition, equal. This means that on the supply side the value of goods and services produced is equal to the sum of the components of final demand-consumption expenditure, capital formation, and net export, are equal. To maintain this identity, the imputed value of goods produced by the households for own consumption is equal to the value of imputed consumption expenditure of these goods.

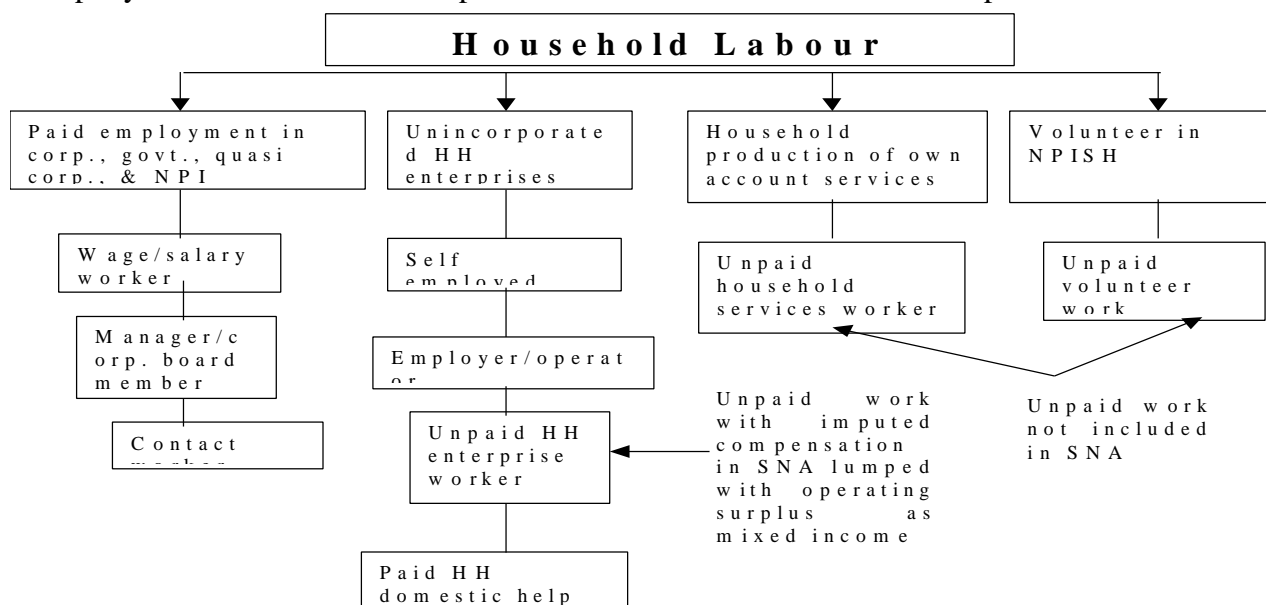
Following this convention, if production of own-account household services were to be imputed the same value of household services should be recorded in consumption expenditure on the demand side. To maintain the existing compilation practice in additional accounts compilation, the value of output would be equal to the value of unpaid work of the household member.

9.2. Paid and unpaid work

In the SNA, labour input in activities within the production boundary have corresponding compensation, regardless of whether the worker is actually paid or not. The accounting practice in national accounts records those actually paid as compensation. The unpaid work of household members in household unincorporated enterprise is actually valued but the compensation is incorporated in mixed income. Mixed income, which covers operating surplus and compensation of operator and unpaid household worker, was introduced in the SNA 1993 to reflect the actual operation of household unincorporated enterprise. Chart II shows the direction of labour supply of households. In household surveys, this income is income of household or of the operator. Estimation procedure could be developed to segregate the compensation and operating surplus of mixed income.

Chart II.

The labour input not valued, although the production activity is within the production boundary of the SNA, is the equivalent value of volunteer service of household members in non-profit institutions. The services of non-profit institutions are within the production boundary, but the valuation of output includes only the actual compensation of paid employee. The value of unpaid work of volunteers is not imputed in the



computation of output on non-profit institutions.

Production of household own-account services, classified under general definition but outside SNA production boundary, should be valued side by side with the production of unpaid labour input for a more comprehensive analysis of unpaid work. The value of output which excludes tax net of subsidies and operating surplus, because household own-account services is non-market, could be valued in any of the following :

- output = imputed value of unpaid work+ intermediate input + consumption of consumer durable;
- output = imputed value of unpaid work+consumption of consumer durable; or,
- output= imputed value of unpaid work.

In the first approach, the value added to the economy will be the sum of value of unpaid work and consumption of consumer durable. The equivalent value of household consumption expenditure would be the total value of output. Although increase in the final demand side would still be equal to the value added in the supply side, this approach will create a distortion in the structure of consumption expenditure of household. For example, instead of recording household consumption expenditure on food items such as rice, fish, or vegetables, household consumption expenditure would only record meals, as the product of the household own-account production of services is the same as the output of restaurants.

In some studies, meals are valued at the prevailing price in the market. This approach has two implications: first, the consumption structure of the household will deviate from the consumption structure of household consumption expenditure based on the classification of individual consumption of product (COICOP); second, the output will be taken as market output because in using market price operating surplus is included. If the prices include operating surplus, the value of household own-account production of services would become a market output.

The second approach is to take only the imputed value of unpaid work and the consumption of consumer durable as the output as well as the value added. This approach will not distort COICOP because the expenditure item reflected in consumption expenditure will remain as is. It will not also distort the weights because the imputed expenditure is non market.

The third approach does not deviate much from the existing SNA framework as it does not take consumer durable as assets and therefore

does not have equivalent services (as approximated by consumption of fixed capital) in production. The value of output, value added, and the imputed income of household would all be equal. The imputed income of household would only be the same as the imputed value of unpaid work.

In all the three approaches, the household will have additional imputed income for unpaid work and in the first two approaches an imputed consumption of durable goods. Consumption of durable goods is included because production of household own-account services is regarded as production. As such, services of equipment (capital goods) used in production, is valued.

The other output that needs to be estimated is the additional output of non-profit institution owing to unpaid volunteer work. The imputed value of unpaid volunteer work will be added to the estimated value of output of non-profit institution (NPI). In this case, the value of output is equal to the imputed value of unpaid work of volunteers since all intermediate input and consumption of fixed capital are accounted for in the estimate of output of NPI. In the imputation of value of unpaid work of unpaid volunteers in NPI, an equivalent imputed income would be added to the households. The same amount will be imputed as additional consumption expenditure of the NPI.

9.3. Valuation of unpaid work

The above discussion identifies three types of unpaid work of household members based on the general definition of work namely:

- (i) Unpaid work in household unincorporated enterprise including household subsistence production of goods;
- (ii) Unpaid work of production of household own-account services; and;
- (iii) Unpaid work of household as volunteers in non profit institutions.

The first refers to unpaid work of household members in household unincorporated enterprise producing goods and services for the market and household subsistence production of goods. Because production of household unincorporated enterprise fall within the production boundary of the SNA, value of unpaid work is measured and included in the estimate of GDP. The value is, however lumped with operating surplus referred to as mixed income. In general, mixed income is estimated indirectly. The issue underlying the valuation of this type of unpaid work is availability of data for estimation. The estimates could undoubtedly improve with time use statistics.

The second type of unpaid work refers to production activity outside the SNA production boundary. Although by definition, these services could be rendered by a third person, the valuation might not be as

straightforward as it might seem. If time use data were available, the volume of labour input could be measured in terms of time spent, although the quality of the labor input might not be measurable. In valuation, there are issues that would need to be considered:

- classification of unpaid work in production of household own account activities;
- grouping of these activities; and
- valuation of the time-used for the activity.

The first issue is resolved by following the third person criteria, that is, the service provider and the service beneficiary are separable and the service is provided in the market. As defined by Reid (1996), this includes "unpaid activities which are carried on, by and for the members, which activities 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.

Pricing of output for the market is determined by price during the transaction. For non market goods and services, sale price is generally lower than the cost of production of similar market services. Hence pricing of the output is based on the cost incurred in production, excluding imputed operating surplus. For valuation of unpaid work in the production of own-account household services, the most widely known approaches are:

- **Opportunity cost:** The cost of the wages foregone as a result of not opting to offer services in the market. The valuation will change depending upon who is engaged in the unpaid work.
- **Replacement cost (specialist).** The wage of specialist or profession engaged in the activity in the market($\text{wage} = \text{wage rate} * \text{time spent}$).
- **Replacement cost (generalist).** The wages paid to household worker($\text{wage} = \text{wage rate} * \text{time spent}$) or dependig upon the practice in the country.

Opportunity cost values the time spent for the unpaid work based on the foregone income of the unpaid household member had this member opted to provide labour services in the market. If a mother with post-graduate degree, for example, opted to stay at home to take care of her children and manage the household, her unpaid work would be priced according to her compensation in paid employment. This method requires data on the occupation of the worker that will match with the occupation in the market and the compensation rate. Moreover, the method also implies that there are always opportunities in the labour market for the person. In countries where there is excess supply of labour, this method would tend to overestimate the price for unpaid labour.

Replacement cost (specialist) uses the wage paid to a person who produces similar services in the market. This method would be applied to specific household own-account services. For example, cooking would be valued at wage rate of employed cooks, laundry of paid laundry at wage rate workers, caring of children at wage rate of nanny paid etc. This method assumes that the quality of the same services would be the same and that these occupations are found in the market. Replacement cost (generalist) values the unpaid work by the equivalent wages of paid domestic help. The wage depends mostly on the labour market situation in the countries. In some countries, where wages of domestic help is legislated, the price would be available, in others pricing would require additional statistics from labour and employment or household income and expenditure surveys. For valuation of volunteer work, compensation rate of worker in NPI would be based on compensation rate in NPI's.

9.4. Basic Data for valuation of unpaid Work

Valuation of unpaid work in production of household own-account services requires special on time spent on unpaid work and the wage rates depending upon the type of valuation applied. Using the formula:

Value of unpaid work=average time spent for activity* wage rate*number of person =total time spent for activity*wage rate per unit of time

In the above formula, the time spent could be by activity or group of activities. Based on the above formula, two sets of data are required: time spent for specific activity on own-account services and the wage rate. The former could be taken from time use survey and the latter from employment and wage rates surveys or can be collected in the time use survey itself.

9.5. Role of time use survey in the valuation of unpaid work

Valuation of output of the goods or services produced for own use using input approach is gaining popularity in many countries in which wage rates have been applied to the time used on these activities. This requires information on the time put in by the women and others, and the corresponding rates at which this time is to be evaluated. Therefore, the basic data for attempting any exercise for valuation of unpaid work comes from the time use survey.

10. Brief details of Indian time use survey

A pilot time use survey was conducted by the Central Statistical Organisation in about 18,600 households spread over six selected states namely, Haryana, Madhya Pradesh, Gujarat, Orissa, Tamil Nadu, and

Meghalaya during July, 1998 to June, 1999. A multi-stage stratified sampling design was used in this survey. The district, village/ urban blocks and households were the first, second and the third stages in this survey. Stratification of the districts were done using the population density and proportion of scheduled tribe population. Even in the selected villages, sub-stratification of the households was done using area of land possessed and means of livelihood. In urban areas, sub-stratification was attempted using only the means of livelihood. These sub-stratifications were attempted to ensure the representation of all segments of society in the sample.

In the selected households all the persons aged 6 years and above were covered in the survey. Information on time utilised in performing various activities covering 24 hours of a day was collected. To capture the variation in the activity pattern, time use data was collected for three types of days namely, normal, weekly variant, and abnormal in a reference period of one week. With a view to also capture seasonal variation in the activity pattern, survey was conducted in a full year period.

A detailed activity classification (annexure I) was prepared for use in this survey. The basic objective in developing the activity classification was that all the activities can be categorized in one of the three groups namely SNA activities, extended-SNA activities and non-SNA activities. Unpaid household services are covered by extended-SNA activities. SNA activities are those which are taken into account for computation of GDP by SNA, 1993. Because of this the activity code 611, which relates to community organised construction and repairs etc. has been taken as a SNA activity. Broadly group I, II and III comes under the SNA activities, IV, V and VI under extended-SNA activities and VII, VIII, and IX under non-SNA activities. Unpaid work in the society are covered in the extended SNA categories. Though the time use survey was conducted in only six states, a sample design was chosen to give indicative estimates of time use pattern for all India as well. Of course, district level estimates have been also worked out but they may have reliability problems for some of the indicators owing to small sample size.

11. Extent of unpaid work in the Indian economy

Before attempting an exercise to value unpaid work, it would be worthwhile to illustrate the prevalence of unpaid work in the Indian society.

Table 1. Time spent on various activities (all)										
Statewise weekly average time (in hours) spent on SNA, extended SNA and non-SNA activities by sex place of residence (all)										
States	Activities	Rural			Urban			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Haryana	SNA	37.98	23.49	31.36	36.54	11.21	24.97	37.72	21.26	30.19
	Extended SNA	1.74	30.67	14.91	3.11	32.74	16.68	1.99	31.06	15.24
	Non-SNA	128.22	113.81	121.69	128.31	124.08	126.36	128.23	115.67	122.52
	Total	167.94	167.97	167.96	167.96	168.03	168.01	167.94	167.99	167.95
	Total persons	1919	1603	3522	687	588	1275	2606	2191	4797
Madhya-Pradesh	SNA	43.55	22.62	33.64	36.35	8.50	23.37	42.07	19.85	31.54
	Extended SNA	4.42	35.47	19.12	4.43	36.99	19.60	4.43	35.79	19.22
	Non-SNA	119.98	109.85	115.20	127.19	122.53	125.03	121.47	112.38	117.19
	Total	167.95	167.94	167.96	167.97	168.02	168.00	167.97	168.02	167.95
	Total persons	6832	6186	13018	2275	1963	4238	9107	8149	17256
Gujarat	SNA	44.83	23.90	34.74	41.81	7.02	25.45	43.63	17.60	31.24
	Extended SNA	3.25	37.55	19.73	3.09	41.57	21.18	3.19	39.08	20.27
	Non-SNA	119.93	106.52	113.49	123.09	119.47	121.99	121.12	111.36	116.44
	Total	168.01	167.97	167.96	167.99	168.06	168.62	167.94	168.04	167.95
	Total persons	3244	2988	6232	2913	2652	5565	6157	5640	11797
Orissa	SNA	39.54	19.03	29.26	42.19	8.37	26.46	40.12	17.07	28.69
	Extended SNA	4.34	35.28	19.83	5.00	37.61	20.18	4.47	35.70	19.91
	Non-SNA	124.10	113.67	118.92	120.81	122.06	121.41	123.45	115.20	119.36
	Total	167.98	167.98	168.01	168.00	168.04	168.05	168.04	167.97	167.96
	Total persons	4131	4157	8288	957	877	1834	5088	5034	10122
Tamil Nadu	SNA	42.02	23.46	32.77	43.28	11.02	27.09	42.54	18.97	30.68
	Extended SNA	3.51	29.52	16.53	2.70	32.08	17.44	3.19	30.46	16.87
	Non-SNA	122.43	114.99	118.71	121.94	124.89	123.47	122.27	118.61	120.45
	Total	167.96	167.97	168.01	167.92	167.99	168.00	168.00	168.04	168.00
	Total persons	5507	5541	11048	3204	3186	6390	8711	8727	17438
Meghalaya	SNA	48.28	29.12	38.45	35.42	14.42	24.23	45.94	26.34	35.88
	Extended SNA	7.02	34.55	21.13	7.96	34.39	21.99	7.16	34.52	21.28
	Non-SNA	112.70	104.31	108.38	124.60	119.24	121.77	114.78	107.15	110.84
	Total	168.00	167.98	167.96	167.98	168.05	167.99	167.88	168.01	168.00
	Total persons	652	655	1307	269	283	552	921	938	1859
Combined states	SNA	42.31	22.53	32.72	41.06	9.16	25.77	41.96	18.72	30.75
	Extended SNA	3.74	33.95	18.40	3.44	36.44	19.26	3.65	34.63	18.69
	Non-SNA	121.98	111.50	116.89	123.47	122.44	123.03	122.42	114.58	118.62
	Total	168.03	167.98	168.01	167.97	168.04	168.06	168.03	167.93	168.06
	Total persons	22285	21130	43415	10305	9549	19854	32590	30679	63269

**Note : 1. The figure of total time for each may not be exactly equal to 168 due to effect of rounding.
2. Definition of SNA, extended SNA and non-SNA are given in section 10 of this paper.**

Unpaid work are covered in the extended SNA categories. Table 1 gives a broad picture of the distribution of time spent on various activities.

The SNA activities consist of primary production activities, like crop farming, animal husbandry, fishing, forestry, processing, and storage, mining and quarrying; secondary activities like construction, manufacturing and activities like trade, business and services (group I to III of annexure-I). Extended SNA activities include household maintenance, care for children, sick and elderly (group IV to VI of annexure-I). The activities related to learning, social and cultural activities, mass media and personal care and self-maintenance are categorised as non-SNA activities (group VII to IX of annexure-I).

On the average male spent about 42 hours in SNA activities as compared to only about 19 hours by females. However, the situation completely changes when we consider extended SNA activities. In these activities males spent only about 3.6 hours as compared to 34.6 hours spent by females. Therefore, female spend about ten times more time in extended activities as compared to males. In Non- SNA activities, which pertains to learning, leisure and personal care, males spent about 8 hours more as compared to females. On the average 71 percent of the time is spent in non- SNA activities. The SNA and extended SNA contribute for 18 percent and 11 percent respectively.

Time Use variations for males were not found to be significantly different in rural and urban areas. However, female participation in SNA activities (5 %) in urban area was much lower as compared to 13 percent in rural areas. This may be owing to the fact that women in rural area generally participate in agricultural activities, which are treated as SNA activities.

Significant pattern have also been observed in the time use pattern over the states. The maximum time spent in SNA activities for rural males was in Meghalaya (48.28 hours), followed by Gujarat (44.83 hours) and Madhya Pradesh (43.55 hours). The minimum was observed in Orissa (39.54 hours). Trend was almost similar for females in rural areas as well. For urban area highest time for males was found in Tamil Nadu (43.28 Hours) followed by Orissa (42.13 hours) and Gujarat (41.81 hours). As far as the urban females were concerned, highest time was found to be in Meghalaya (14.42 hours) followed by Haryana (11.21 hours) and Tamil Nadu (11.02 hours).

As regard extended activities Gujarat scored the highest time (37.55 hours) for rural females followed by Madhya Pradesh (35.47 hours) and Orissa (35.28 hours). There was not much variation observed in the time spent in extended SNA activities by rural and urban females. The maximum difference was observed to be about 4 hours.

11.2. Proportion of unpaid work in the SNA activities

In India, no payment is made for a number of economic activities. Such activities are performed either by family labour or through exchange labour. It will be useful to study sex wise detail of the unpaid work in the SNA activities; details given in table 2. It may be seen that for the six states combined payment was not made for about 38 percent of the time spent in SNA activities. The amount of unpaid activities was more (51%) for female as compared to only 33 percent for male. The predominance of women in unpaid activities was visible in all the states. The percent of time spent by females in unpaid activities was highest in Haryana (86%) followed by Meghalaya (76%) and Orissa (69%). This percentage was lowest for Tamil Nadu (32%).

Table 2. Time spent on paid and unpaid activities									
Statewise distribution of time spent (in hours) in SNA activities by mode of payment and sex (participants)									
States	Male			Female			Total		
	Paid	Unpaid	% time on Unpaid activities	Paid	Unpaid	% time on unpaid activities	Paid	Unpaid	% time on unpaid activities
Haryana	33.09 (1152)	18.12 (1347)	35.38	4.13 (215)	25.34 (1494)	85.99	20.06 (1367)	21.37 (2841)	51.58
Madhya-Pradesh	29.41 (5247)	23.34 (6311)	44.25	14.31 (3072)	15.75 (4391)	52.40	22.99 (8319)	20.12 (10702)	46.67
Gujarat	44.37 (3959)	14.17 (3897)	24.21	17.18 (1747)	13.87 (2541)	44.67	33.26 (5706)	14.05 (6438)	29.70
Orissa	31.25 (2103)	22.42 (2589)	41.77	8.00 (583)	18.18 (3235)	69.44	20.55 (2686)	20.47 (5824)	49.90
Tamil Nadu	41.42 (5633)	13.36 (4863)	24.39	21.48 (3034)	10.32 (4280)	32.45	32.74 (8667)	12.04 (9143)	26.89
Meghalaya	17.34 (374)	35.39 (740)	67.12	7.83 (196)	25.34 (692)	76.39	12.65 (570)	30.44 (1432)	70.64
Combined states	36.54 (18468)	18.12 (19747)	33.15	14.87 (8847)	15.18 (16633)	50.52	27.16 (27315)	16.85 (36380)	38.29

Note : Figure in parenthesis in the second line under each activity gives sample number of persons participating in the activity

12. Quantification of unpaid work using the Indian time use survey data

As already mentioned in the previous paragraphs, time use survey was conducted in only six states. As it did not cover all the states, it will be hazardous to attempt the validation exercise at all India level. Therefore, to illustrate, the concept and methodologies, only two states, namely Haryana and Gujarat have been chosen.

12.1. Use of Indian time use survey data for valuation of unpaid work

A. Data requirement

For the process of valuation using the input method the following data was used:

(i). Time use data

This set of data provides the information on the time used by the individual in different activities. The data is taken from a time use survey conducted from July'98 to June'99 in six selected states namely, Haryana, Madhya Pradesh, Gujarat, Orissa, Tamil Nadu and Meghalaya. The weekly average time spent by an average individual in the sample, in various activities forms the basis of the calculations in this exercise.

(ii). Wage rate data

During the time use survey the district-wise wage rate data for all the six selected states, was also compiled under six categories of workers, which are:

- Agricultural labour
- Non-agricultural labour
- Mining and quarrying
- Processing and storage
- Construction activities
- ESI / factory workers
- Urban unskilled manual labour

In the present exercise, for each district in the two selected states, the wage rate for rural sector is taken to be that of agricultural labour and for the urban sector it is the wage rate of urban unskilled manual labour. The wage rates are separate for male and female under every category.

(iii). Projected population

Data is also required for district-wise population in the age group 6 years and above to estimate the total value of the work done under extended SNA activity for all the districts in each of the selected states.

The projected populations for July'98 for each of the six selected states both for rural-urban and male-female breakups is available. These values of projected population are used to arrive at the population in the age group 6 years and above by adjusting it with the proportion of population this age group (using age-group wise population projections for 1996). For each of the six selected states, the state-wise population aged 6 years and above is then distributed among different districts according to the proportion of population in each district as per 1991 census.

B. Calculation procedure

It has been proposed that the annual monetary value for the extended SNA activities for district/states is the product of the annual time spent in those activities, the wage rate admissible to the activity and the population aged 6 years and above.

The weekly average time use data is to be transformed into annual time use data and then the wage rates are applied to it to get the annual value of work done per individual in the sample.

These annual value for an average individual is then multiplied by the population aged 6 years and above under each category of rural-urban male-female. The aggregate of these values over all sections of population denote the entire contribution of the district/state population in performing extended SNA activities.

C. Notations and calculation procedure

$T_{A,S}$: The weekly average time used by an average individual in the sample for the extended-SNA activities for the type of area 'A' (rural/urban) and for the sex 'S' (male/female).

$W_{A,S}$: The daily (8 hours) wage rate for the area 'A' (rural/urban) and for the sex 'S' (male/female)

$P_{A,S}$: The projected population under the type of area 'A' (rural/urban) for the sex 'S' (male/female) in the age group 6 years and above.

V : The average annual value (in crores) of work done for the entire district/state.

$$V = \frac{\sum_A \sum_S \left(T_{A,S} * 52 \right) * \left(\frac{W_{A,S}}{8} \right) * P_{A,S}}{10000000}$$

D. Important findings

Table 3 and 4 given below presents the value of unpaid work in extended SNA activities in Haryana and Gujarat. It may be seen that unpaid work amounted to Rs. 11,138 crores in Haryana and Rs. 24,787 crores in Gujarat during July, 1998 to June, 1999. As women's involvement in unpaid work is much more than men, women contribute about 90 percent of the unpaid work in both the states of Haryana and Gujarat.

District	Rural			Urban			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yamuna Nagar	38.72	300.19	338.90	26.90	180.34	207.24	65.62	480.53	546.15
Kurukshetra	14.19	177.15	191.34	6.06	56.22	62.28	20.25	233.38	253.62
Gurgaon	27.81	577.92	605.73	28.66	133.55	162.22	56.47	711.48	767.95
Rewari	45.41	312.84	358.25	8.89	74.21	83.10	54.30	387.05	441.35
Hissar	61.64	1157.42	1219.06	37.24	336.37	373.61	98.89	1493.78	1592.67
Sirsa	27.54	538.03	565.57	16.67	-	16.67	44.22	538.03	582.24
Haryana	564.42	7489.76	8054.18	364.32	2719.55	3083.87	928.74	10209.30	11138.04

District	Rural			Urban			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rajkot	94.37	935.70	1030.07	70.58	-	70.58	164.95	935.70	1100.65
Bhavnagar	59.33	759.16	818.50	35.58	508.83	544.41	94.91	1268.00	1362.91
Junagadh	112.40	1565.57	1677.97	26.23	477.40	503.63	138.63	2042.97	2181.60
Banaskantha	97.43	844.93	942.35	11.30	130.28	141.58	108.73	975.21	1083.94
Ahmedabad	64.13	421.35	485.48	202.01	2193.34	2395.35	266.14	2614.69	2880.83
Vadodara	41.25	480.36	521.61	89.75	859.64	949.40	131.00	1340.00	1471.00
Surat	43.77	567.92	611.68	148.28	1153.68	1301.96	192.05	1721.60	1913.65
Gujarat	1361.81	13653.80	15015.60	847.75	8923.83	9771.58	2209.55	22577.63	24787.18

To illustrate the importance of unpaid work to the macro economy, the share of unpaid work to the state domestic product (SDP) of these two states have been presented in table 5 below.

Table 5. Value of unpaid activities as compared to State Domestic Product							
State	Total Value (in Crores) Of Extended SNA Activities			State Domestic Product (In Crore) At Current Prices (1997-98)	Value of Extended SNA as a % of SDP		
	Male	Female	Total		Male	Female	Total
Haryana	928.74	10209.30	11138.04	37427	2%	28%	30%
Gujarat	2209.55	22577.63	24787.18	86609	3%	26%	29%

It may be seen from this table that value of extended-SNA unpaid work is about 30 percent of SDP in Haryana and 29percent in Gujarat. Share of women in these percentages are 28 percent in Haryana and 26 percent in Gujarat.

13. Limitations of using time use data for valuation exercise

Though valuation of unpaid work can be attempted using time use survey data, it has some limitations. Some of them are listed below:

- Time-use based valuations are inappropriate for studying extended income distribution. Non market time is elastic and is used at the discretion of households. In order to save on expenditures, households with low monetary income may devote time in production for own-consumption even if yields low hourly returns. Diminishing returns are ignored when household incomes are compared on the basis of unpaid labour time multiplied by an imputed wage. Because of diminishing returns to labour and because of more hours of work, households time-use based valuations appear better than they actually are. In order to avoid this difficulty, output based valuations are necessary.
- Time-use does not measure human effort, i.e. it makes no distinction between one hour worked in harsh circumstances and one hour worked in comfortable circumstances.
- Deliberate slow work by members of the households because there is nothing else to do.

- Differentiating between unemployment, under-employment and leisure. Forced inactivity needs to be differentiated from voluntary inactivity.
- Time is input. Its productivity varies among individuals. Difficulties in imputing the value of time-use for estimating the household production for own-account consumption.
- Seasonality is an important factor, specially in rural areas. Women and men's time differs substantially by whether it is harvest time, sowing time, off-season, etc.

14. Conclusion

Analysis attempted in this paper reveal that value of unpaid work in the economy mostly performed by women, is quite substantial and its value in two of the states was found to be about 30 percent of their GDP. Therefore, even though women's unpaid work is not recognized for calculation of GDP as per SNA, 1993, their contribution to the society is enormous. If a mechanism can be evolved to cover unpaid work in the SNA, then SDP of these two states can increase by about 30 percent and women will be the main contributory to this increase. **For undertaking similar exercise at an all India level, a time use survey covering all the states and union territories must be conducted.**

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ACTIVITY CLASSIFICATION

I *Primary Production Activities*

11 Crop farming, kitchen gardening, etc.

- 111. Ploughing, preparing land, cleaning of land
- 112. Sewing, planting, transplanting
- 113. Application of manure, fertilizer, pesticides and watering, Preparing organic manure. Harvesting, threshing, picking, Winnowing
- 114. Weeding
- 115. Supervision of work.
- 116. Kitchen gardening – backyard cultivation
- 117. Stocking, transporting to home, guarding or protection of crops.
- 118. Sale and purchase related activities
- 119. Travel to the work.

12. Animal husbandry

- 121. Grazing animals outside
- 122. Tending animals – cleaning, washing shed, feeding, watering, preparation of feed
- 123. Caring for animals : breeding, shearing, medical Treatment, grooming, shoeing, AI etc.
- 124. Milking and processing of milk collecting, storing of poultry products
- 125. Making dung cakes
- 126. Poultry rearing – feeding, cleaning
- 127. Other related activities
- 128. Sale and purchase related activities
- 129. Travel to work

13. Fishing, forestry, horticulture, gardening

- 131. Nursery – seedlings
- 132. Planting, tending, processing of trees.
- 133. Collecting, storing & stocking of fruits etc.
- 134. Wood cutting, chopping & stocking firewood
- 135. Fish farming, cleaning sea-bed, feeding fish, catching fish, gathering other aquatic life
- 136. Care of house plants, indoor and outdoor garden work
- 137. Flower gardening – landscaping, maintenance, cutting, collecting, storing

- 138. Sale and purchase related activities.
- 139. Travelling to work.

14. Collection of fruit, water, plants etc., storing and hunting.

- 140. Fetching of water
- 141. Collection of fruits, vegetables, berries, mushrooms etc. edible goods
- 142. Collection of minor forest produce, leaves, bamboo, etc.
- 143. Collection of fuel/fuel wood/twigs
- 144. Collection of raw material for crafts
- 145. Collection of building materials
- 146. Collection of fodder
- 147. Sale and purchase related activities
- 148. Collection of other items
- 149. Travel to work.

15 Processing & Storage

- 152. Milling, husking, pounding
- 153. Parboiling
- 154. Sorting, Grading
- 155. Grinding, crushing
- 156. Any other related activity
- 157. Sales and purchase related activities
- 159. Travel to work

16. Mining, quarrying, digging, cutting, etc.

- 161. Mining/extraction of salt,
- 162. Mining/digging/quarrying of stone, slabs, breaking of stones for construction of building road, bridges etc.
- 163. Digging out clay, gravel and sand
- 164. Digging out minerals – major and minor
- 165. Transporting in vehicles
- 166. Storing, stocking
- 167. Any other related activity
- 168. Sale and purchase related activity
- 169. Travel to work

II. *Secondary Activities*

21 Construction Activities

- 211. building & construction of dwelling (laying bricks, plastering, thatching, bamboo work, roofing) and maintenance and repairing of dwelling.
- 212. Construction and repair of animal shed, shelter for poultry etc.
- 213. Construction of wall, storage facility, fencing etc. for farms, irrigation work
- 214. Construction of public works/common infrastructure – roads, buildings, bridges, etc.
- 217. Any other activity related
- 218. Sales and purchase related activity
- 219. Travel to work.

22. Manufacturing Activities

- 221. Food processing and cooking for sale – making pickles, spices and other products; canning fruits, jams & jellies; baking; beverage preparation, selling readymade food etc.
- 222. Butchering, curing, processing, drying storing etc. of meat, fish etc.
- 223. Manufacturing of textiles – spinning, weaving, processing of textiles; knitting, sewing, garment making of cotton, wool and other material.
- 224. Making handicrafts, pottery, printing and other crafts made primarily with hands. (wood based leather based crafts, embroidery work etc.)
- 225. Fitting, installing, tool setting, tool and machinery – moulding, welding, tool making,
- 226. Assembling machines, equipment and other products,
- 227. Production related work in large and small factories in different industries – as production workers, maintenance workers paid trainees and apprentices, sales, administration and management activities.
- 228. Sale and purchase related activity
- 229. Travel to work.

III *Trade, Business and Services*

31 Trade and Business

- 311. Buying and selling goods – such as capital goods, intermediate goods, consumer durables, consumer goods – in the organised and formal sectors.

- 312. Petty trading, street and door to door vending, hawking, shoe cleaning etc.
- 313. Transporting goods in trucks, tempos and motor vehicles.
- 314. Transporting in hand carts, animal carts, cycle rickshaws etc. or manually
- 315. Transport of passenger by motorised and non-motorised transports
- 317. Any other activity.
- 319. Travel to work.

32 Services

- 321. Service in government and semi government organisations (salaried)
- 322. Service in private organisations (salaried)
- 323. Petty service : domestic servants, sweepers, washers, pujari, barber, cobbler, mali massaging, prostitution, (wages) watching and guarding
- 324. Professional services : medical and educational services (private tuition, non formal teaching etc.), financial services and management and technical consultancy services
- 325. Professional services : computer services, xerox/photocopying services, beauty parlours, hair cutting saloons etc.
- 326. Technical services: plumbing, electrical and electronic repair and maintenance and other related services
- 327. Others
- 329. Travel to work.

IV. *Household Maintenance, Management and Shopping for Own Household*

- 411. Cooking food items, beverages and serving.
- 421. Cleaning and upkeep of dwelling and surroundings
- 422. Cleaning of utensils
- 431. Care of textiles: sorting, mending, washing, ironing and ordering clothes and linen
- 441. Shopping for goods and non-personal services: capital goods, household appliances, equipment, food and various household supplies.
- 451. Household management: planning, supervising, paying bills, etc.
- 461. Do-it-yourself home improvements and maintenance, installation, servicing and repair of personal and household goods.
- 471. Pet care
- 481. Travel related to household maintenance, management and shopping

491. Household maintenance, management and shopping not elsewhere classified.

V ***Care for children, the sick, elderly and disabled for own household***

- 511. Physical care of children: washing, dressing, feeding
- 521. Teaching, training and instruction of own children
- 531. Accompanying children to places: school, sports, lessons, etc./PHC/doctor
- 541. Physical care of the sick, disabled, elderly household members: washing, dressing, feeding, helping.
- 551. Accompanying adults to receive personal care services: such as hairdresser's therapy sessions, temple, religious places etc.
- 561. Supervising children needing care – with or without other activities
- 562. Supervising adults needing care – with or without other activities.
- 571. Travel related to care of children
- 572. Travel related to care of adults and others.
- 581. Taking care of guests/visitors
- 591. Any other activity not mentioned above

VI ***Community Services and Help to other Households***

- 611. Community organised construction and repairs: buildings, roads, dams, wells, ponds etc. community assets.
- 621. Community organised work: cooking for collective celebrations, etc.
- 631. Volunteering with for an organisation (which does not involve working directly for individuals)
- 641. Volunteer work through organisations extended directly to individuals and groups
- 651. Participation in meetings of local and informal groups/caste, tribes, professional associations, union, fraternal and political organisations
- 661. Involvement in civic and related responsibilities: voting, rallies, attending meetings, *panchayat*
- 671. Informal help to other households
- 681. Community services not elsewhere classified
- 691. Travel related to community services

VII ***Learning***

- 711. General Education: school/university/other educational institutions attendance

- 721. Studies, homework and course review related to general education
- 731. Additional study, non-formal education under adult education programmes.
- 741. Non formal education by children
- 751. Work-related training
- 761. Training under government programmes such as TRYSEM, DWCRA and others
- 771. Other training/education
- 781. Learning not elsewhere classified
- 791. Travel related to learning

VIII *Social and Cultural Activities, Mass Media, etc.*

- 811. Participating in social events: wedding, funerals, births, and other celebrations
- 812. Participating in religious activities: church services, religious ceremonies, practices, kirtans, singing, etc.
- 813. Participating in community functions in music, dance etc.
- 814. Socializing at home and outside the home.
- 821. Arts, making music, hobbies and related courses:
- 822. Indoor and outdoor sports participation and related courses
- 831. Games and other past-time activities
- 832. Spectator to sports, exhibitions/museums, cinema/theatre/concerts and other performances and events
- 841. Other related activities.
- 851. Reading, other than newspaper and magazines.
- 852. Watching television and video
- 853. Listening to music/radio
- 861. Accessing information by computing
- 862. Visiting library
- 863. Reading newspaper, magazines
- 871. Mass media use and entertainment not classified elsewhere
- 891. Travel related to social, cultural and recreational activities, social, cultural and recreational activities, social, cultural and recreational activities not elsewhere classified mass media use and entertainment.
- 892. Travel relating to search of jobs.

IX. *Personal Care and Self-Maintenance*

- 911. Sleep and related activities
- 921. Eating and drinking
- 922. Smoking, drinking alcohol and other intoxicants.
- 931. Personal hygiene and health

- 932. Walking, exercise, mining, jogging, yoga, etc.
- 941. Receiving medical and personal care from professional
- 942. Receiving medical and personal care from household members.
- 951. Talking, gossiping and quarrelling
- 961. Doing nothing, rest and relaxation
- 971. Individual religious practices and meditation
- 981. Other activities
- 982. Resting/convalescening due to physical illness and physically unwell persons.
- 991. Travel related to personal care and self-maintenance

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Director
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Dear Dr. Lahiri,

Kindly refer to your D.O. letter No. 732 dated November 26, 2000 regarding the preparation of a paper on the treatment of unpaid work in SNA etc. I have already communicated my willingness to write the paper.

As already communicated in my earlier letter, I am sending herewith the final paper entitled " Women's Contribution To The Economy Through Their Unpaid Household Work". The paper covers all the points mentioned in the Terms of Reference mentioned in the Annexure to your letter.

I hope the paper will meet all the requirements. Needless to say, I shall be happy to clarify any points or reply to the comments on the paper.

Kindly release the payments for the writing of the paper at your earliest convenience.

With kind regards,

Yours sincerely,

(R.N. Pandey)

Dr. Ashok Lahiri
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