

**Intra-Household Gender Analysis of Work Roles and  
Distribution of Resources**  
**A Study of three different ethnic groups of a Nepalese Village.**

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## **Background**

With the advent of education and awareness women everywhere are influencing and participating in mainstream of development. However, the scenario of the Third World differs from that of the Western world. Women in the third world are still far behind their male counterparts in almost all aspect. And, Nepal is no exception. Hence the section most notably excluded from the process of development - in terms of both beneficiaries and contributors is women. Their status in the society results in a continuous lag in opportunities in education, training, employment, health, public life, access to economic rights and the like and their worth as individuals and as members of the family and society is barely recognized.

Nepal actively participated in planned economic development beginning in the mid 1950s. The first national five year plan of the country was formulated in 1956. Though women had been targeted as development beneficiaries in the first (1956 – 1961) and successive four other plans, the focus was on their reproductive role. Following a welfare approach, programs were developed to provide women with homemaking and mothering skills.

Women as agents of development were recognized for the first time in the Sixth Five Year Plan ( 1980 – 1985). The Sixth Plan included a separate Women in Development ( WID) chapter in its five year development plans and programs ( NPC 1980). National and international advocacy played a major role in incorporating WID policy in the national development agenda. The Status of Women study ( CEDA, 1981) played an instrumental role to document the extent of women's contribution in the economy and their poor socio-economic conditions. It convinced policy makers of the need to incorporate women's concerns in national policy.

Following the Sixth Five year plan, the seventh ( 1985 – 1990) and the eighth five year plan (1992- 1997) also incorporated separate WID chapters in their documents ( NPC 1985, NPC 1992). Accordingly the government developed programs focusing on women's productive role. Women specific programs and projects were developed to provide employment opportunities with an assumption that access to income would lead to empowerment of women. However, because of a lack of understanding of intra-household gender dynamics, the programs and projects that were developed to benefit women did not actually result in benefits to them. In many cases the impact of well meaning projects became detrimental to women. Though the conditions of women have improved in terms of life expectancy, literacy and access to income compared to two decades ago, the rate of improvement is not rapid. Most importantly, the socio-

economic position of women has not changed. They still remain subordinate to men. This has prevented women from taking full advantage of WID programs and planned interventions. Recently, a consensus has emerged among women's advocates, academics, researchers and policy makers that there is a need to understand the gender dynamics ( such as the family and work roles, decision making power and access to and control over productive resources) that operate within the household/ family and culminate in persisting inequality and subordination of women.

The study of intra-household gender analysis of work roles and distribution of resources would come at a time when Nepal is going through a transition in the development process from agrarian to modernization and a free competitive market. Thus, this analysis would lead to various conclusions that would further lead to policy formation and development, which would incorporate the realities of men and women in work and the distribution of resources, thereof. Thus the programs and projects would also be developed as accordingly.

### **Statement of the Problem**

Adults and children of different ages and sexes typically comprise families/household. Nepal is a country where monogamy is the only accepted form of marriage and hence a family would comprise of the immediate family members. However, joint family practices is highly popular in the Nepalese society, thus a family would also include the immediate first cousins living together and sharing one kitchen plus contributing to the same household economy.

In industrialized societies many goods and services are bought in the market. Families also produce good and services within households with combinations of market and home commodities to satisfy family needs and demands.

In subsistence agricultural households of Nepal, the majority of families' demands are fulfilled by home production. In absence of technology and physical infrastructure, the productive resources available are primarily natural and human resources.

In order to transform available natural resources to consumables, there is high pressure on human resources such as time and human energy. Time demands for activities within the household are met by shared responses on the part of family members. The households are faced with resource constraint situations both from natural resources such as land, water, forest and human resources of time, energy knowledge and skills. A poor natural resources endowment forces family members to toil hard and for

long hours to make a subsistence living. This time constraint put on family members limits the individual member's choice of time use for alternative family and self enhancing activities ( Juster et al 1985 ). In this situation the problem is , who in the family has to forego his/her preference, choice and self interest to work for the well being of other family members.

In order to solve the problem some queries must be answered. Among family members, who needs to engage in subsistence production ? Who will engage in human capital formation ? Who works the longer hours and foregoes his/her leisure ? Who engages in activities demanding excessive human energy and who uses time for low human energy demanding activities ? Who engages in income generating activities, leading to access and control over income ? Does the family as a unit use available resources to pursue family satisfaction through equitable sharing among members / Or are there some family members who have to forego a fair share because of their social and/or biological roles or physical attributes ?

Pertinent questions that emerge from the above queries are : is the household family a cooperative unit where family members pursue their activities to reach common goals ? Or is it a place of conflict, where there is an explanation of the weak and the vulnerable ? Or do family members play the game of power and submission to fulfill their individual interests, appearing at the same time to be cooperative members of the unit ?

### **Objectives**

The main objectives of the research study would be to :

- generate a micro level data base on intra-household gender dynamics in their production – consumption relationships.
- pilot test a research instrument created to accurately assess illiterate respondents' use of time by record method.
- Examine intra-household gender relation theories of cooperation, conflict and cooperative-conflict as they relate to work roles and distribution of household resources for consumption and investment in human capital.

### **Justification**

To have effective women in development programs there is a need to understand intra-household gender dynamics which lead to gender egalitarian and gender discriminatory behaviors within the family/household. This study will utilize methods and research questions to assist in designing and

developing of effective WID programs.

Analyzing the contribution of men and women, boys and girls in a household/family production and consumption and in the family economy as a whole, the study is to elucidate the contributions of family members. This, in turn will explain the contributions of women in the family economy that has been underestimated so far. By pointing out women's contribution in production in the family economy this study will enhance the programming and designing of projects in the country, which are designed for the benefit of women. By pointing out women's consumption pattern, the study intends to sketch the gender discriminations that exists in the societies of the Country and analyze these differences, if it exists. Thus the study is justifiable under the present context and come in the right time when the country is going through the gender mainstreaming planning in its national development plans.

The time use studies have been an accepted tool for measuring productive activities, especially in non-market economy like Nepal. They also provide a new dimension of assessing the roles of men and women and their contribution to the family and society (Clark 1984 ). An understanding of the roles of men and women and their allocation patterns is critical for implementation of development projects.

This study intends to test an instrument designed to allow non literate respondents to report their own time use. This way it eliminates the reliability and validity associated with observation methods.

## **Review of Literature**

### Emergence of theories of WID, WAD, GAD and GED.

A Women in Development ( WID ) approach emerged in about the period of early 1970s. Several theories have examined the role of women in the developing economies of the Third World and the early theories follow the process in which underdeveloped countries move toward the ideal of Western modernization. Similarly empowerment theories are also based on similar processes but add dimensions of modernization and women's empowerment. However, many least developed countries ( LCD's ) do not have similar experiences and have been excluded from this entire process. Ester Boserup( 1990 ) stated that modernization marginalizes women, depriving them of economic opportunity and status. From her book, "Women's role in Economic Development" (1970) a body of theory called Women in Development (WID) emerged. WID approaches concern basically with questions regarding men's and women's roles in an economy, reproductive work versus productive work etc. It also call for an integration of women into development policy and practice. WID challenged the assumptions of the basic needs approach on the

grounds that it over generalized and over simplified the distributional behavior of households. Further, WID challenged the assumptions of modernization/growth theories i.e. over generalization about the equitable benefit of growth.

Soon after Boserup's publication in 1973, the US Foreign Assistance Bill was amended so that the importance of women in economic development was brought into focus. Known as the Percy Amendment, it was committed to integrating women of the Third World into their nation's developmental efforts. The Percy Amendment was soon followed by the United Nations Women's Year in 1975 and the declaration of the UN Decade for Women ( 1975 – 1985 ). Since 1975 four world conferences on women have been held in Mexico City ( 1975), in Copenhagen ( 1980), in Nairobi ( 1985) and in Beijing ( 1995 ) in addition to several other national, regional and international conferences concerning women's issues. These events mark the emphasis on involvement of women both as beneficiaries and contributors in development.

The "Nairobi forward looking strategies" ( UN 1985) sets targets to be met by year 2000 for the advancement of women. Other World Conferences, though not women specific, put gender as the top most priority in their development agendas. At Rio, ( The Earth Summit, 1992) women were recognized as the managers of natural resources and the dynamic force for sustainable development. At Vienna ( Human Rights Conference, 1993) women's rights were recognized to human rights. At Cairo ( International Conference on Population and Development, 1994) women's health, empowerment and reproductive rights were place at the center of population policies. At Copenhagen ( Social Summit, 1994) political, economic and social empowerment of women were recognized to be the key elements to eliminate poverty and social disintegration. The Beijing Declaration ( Fourth World Conference on Women, 1995) has identified twelve critical areas of concern to be addressed by each member State, for the advancement of women. These are, women and poverty, women and education, women and health, violence against women, women in armed conflict, women and economy, women and power/decision making, institutional machinery for the advancement of women, women's rights as human rights, women and media, women and environment and the girl child.

Initially WID approach was that of integrating women into development and emerged as a project and program focused approach. The focus on women was accommodated in the anti-poverty approach. In this way WID policy approach became more acceptable to male dominate agencies, both donors and host countries, as these programs demanded minimal change in existing social structure in terms of gender

hierarchy.

Women and Development ( WAD) theories grew out of a reaction to WID theories. Claiming that WID theories reflect Western gender stereotypes, WAD theories emphasize women's autonomy and assert that women can only develop outside patriarchal power structures, in women – only projects, for example. WAD theories are also heavily policy oriented and are often incorporated into many non-governmental organization (NGO) policies.

In the 1980s Southern ( Third world) scholars pointed out that it is not so much a question of women's issues in isolation, but in relation to men that need to be analyzed and dealt with. They demanded that male biased institutions, especially those unfavorable to women be transformed. Thus, Gender and Development ( GAD) approach emerged. GAD theories are based on the premise that gender is socially constructed and thus, gender roles can be transformed. By viewing gender hierarchies, division of labor and power as social constructions, the GAD approach critically re-examines the condition and position women within social structures and institutions. GAD emphasizes that a mere transformation of the reproductive economy to facilitate women's participation in the productive economy ( i.e. efficiency approach) is not enough. There is also a need to transform the productive economy to recognize people ( men and women) centered development. This means linking economic development to human development of both men and women, incorporating equity, equality and empowerment approaches. ( Human Development Report, UN 1995).

At the Fourth World Conference on Women, Beijing 1995, it was realized that the global ecological and social crisis could no longer be adequately addressed solely through the process of redistribution. The need for more fundamental process of restructuring was realized. It was realized that a gender perspective would bring about a collective understanding of the intrinsic relatedness of the different sectors of human life, because gender is a core organizing principle of human society and because women and men do experience different realities. Thus, any restructuring process must include gender differentiated realities, especially that which has been neglected so far. Indeed, the major cause leading to the current crisis in the definition of the roles in a society is a partial vision that focused only on certain realities to the exclusion of other realities. Thus, GED is a strategy of transformation for creating new and holistic society based on gender equity as a fundamental value. Gender equity is the foundation of a balanced society wherein different realities of women and men are encompassed as diversity and complementary and not as bias and

hierarchy. A genuinely gender – equitable society is holistic in its inclusion of all human needs and capacities, including our organic functions, the phases of our life span and the birth of new generations. In this context, women’s empowerment does not refer merely to slight movement of their status within the parameters of an inherently hierarchical structure. This goes beyond “ participation and development”, it is about the transformation of development. It is not a piecemeal approach and further goes beyond “ inclusion” and “integration” in a system that is fundamentally inequitable and deals with “representation” than just “participation” of women in developmental activities and mainstream of development.

These theories provide a strong foundation for examining Nepalese women in the development process. In Nepal, women have been either marginalized or disempowered and have basically been involved in household activities which go unrecognized and unaccounted.

However, the advocacy from WID to GAD to GED had evolved from welfare, participation and efficiency to equality, representation and empowerment of women.

#### Nepal’s Development Scenario and WID in policy agenda.

This section aims to provide a historical perspective on Nepal’s economic development effort, incorporation of WID/GAD in policy agenda, the evolution of new WID paradigms and the resultant need for new research initiatives on gender and development.

Nepal’s planned economy started in 1956 with the First Five Year Plan ( 1956 – 1961). The past four decades of Nepal’s economic planning reflect the Third World trends of economic development. The First Five year Plan started with a goal of modernizing Nepal which included programs with heavy emphasis on infrastructure building for industrial development. In the 1970s, it was realized that the heavy emphasis and expenditure on infrastructure and industrial development had so significant impact on stagnating production.( Bhadra 1982). Thus the fifth and sixth five year plans redirected emphasis on agriculture development. However, the compounding problems of population growth, deteriorating environment due to deforestation and lack of agricultural technology resulted in a decline in agricultural gross domestic product ( GDP) which resulted in a food grain deficit, especially in the hills (Bhadra 1982).

Even after two decades of planned development efforts, 36% of the total households in Nepal were below the poverty line in 1977 and with inflationary effects the percentage was expected to increase in 1980. ( NPC, Sixth Year Plan,1980). This motivated the government to reassess and redirect the developmental approach. The Sixth Five Year Plan emphasized basic needs fulfillment as the objective for attacking

poverty – this was partly influenced by the basic needs approach that was adopted world wide. However, it was the Seventh Five Year Plan ( 1985 –1990), which took basic needs approach as its full fledged developmental strategy. On the Constitution Day 1986, His Majesty the King declared that Nepal's development emphasis be based on basic needs fulfillment of all Nepalese by the year 2000 AD. The National Planning Commission of the country quantified the basic minimum standards for food, clothing, housing, health and education. In spite of targeting to fulfill the basic needs of the people by the year 2000, in the beginning of the Eighth Five Year Plan (1991 –1995) the proportion of people below poverty line had increased from 36% in 1977 to 49% in 1992. Hence the strategy of the Eighth Plan was to improve economic efficiency through liberalization, privatization and deregulation of the economy hoping to meet the objectives of poverty alleviation, sustainable development and regional balance ( The Eighth Plan preliminary speech, 1992).

Nepal actively participated in the UN Decade for Women ( 1975 – 1985) with various activities and policy formulation for integrating women in development, both as beneficiaries and contributors. One of the most significant events was the Status of Women Study conducted by Center for Economic Developmental and Administration (CEDA). An intensive gender disaggregated time use study revealed that women contributed one-half of the total household income (including value of goods and services at home ) as compared to 44% by men and 6% by children ( Acharya and Bennett, 1981). This documentation impelled the development planners and policy makers to recognize the productive role of women in economic development. The findings and recommendations of the Status of Women study and national and international advocacy and concerns for women's issues were instrumental in creating a separate chapter on WID policy for the first time in the Sixth Five Year Plan ( 1980-1985). Subsequently, the Seventh Five Year Plan( 1986 – 1990 ) and the Eighth Five Year Plan ( 1991 – 1995) further expanded the WID policies.

The Sixth Five Year Plan recognized that the socio-economic status of women is an important indicator of economic development and that women can contribute to national development if their efficiency is enhanced. Hence the Sixth Five Year Plan policy emphasized increasing efficiency of women ( National Planning Commission documents,1980). The Seventh Plan emphasized active and equal participation of women in addition to increasing their efficiency and productivity. It endorsed the National Plan of Action for Women in Development in Nepal, formulated by Women's Services Coordination Committee (

WSSC, 1982) and assured women of decision/policy making power ( NPC, 1985). The Eighth Plan emphasized women's participation in the mainstream of development and stressed the need to formulate an institution for coordinating and monitoring WID activities. Initiated in the Seventh Plan, the Eighth Plan further promoted the role of non-governmental organizations ( NGOs) in WID activities.

Committed to formulate a coordinating and monitoring body for WID activities, the National Planning Commission, established the National Council for Women and Child Development in the beginning of 1995. Nepal signed the Beijing Declaration and was under the obligations of the Declaration in the beginning of September, 1995 and was hence committed to expedite the work in the identified areas of concern. As a first step to the Beijing follow up at the end of September, 1995 the Nepalese government established the Ministry of Women and Social Welfare as the highest level national machinery for the advancement of women. The goal of this Ministry is the empowerment of women and is to mainstream women in national development through gender equality. The Ministry is visioned to play a catalytic role in meeting both the practical and strategic needs of women. Meeting practical needs of women requires the provision of technologies and services such as drinking water, fuel, labor/energy saving and efficiency enhancing technologies, health services etc. that improve the condition of women. The Ministry plays a facilitating role to improve women's condition by working in partnership with government line agencies and non-governmental agencies for provision of service and technologies. Meeting strategic needs refers to bringing about structural adjustments that change the position of women from subordinate to equal with men. For example, recently the Ministry drafted a bill to amend all forms of discriminatory legal provisions within the Civil Code of the Country which included the inheritance laws, abortion laws, family and marriage laws etc. ( MOWSW, 1996 ).

The Ministry is also active in institutionalizing the gender sensitizing process. Through its own activities and by facilitating other governmental and non-governmental organizations, the Ministry aims to gender sensitize the policy makers, program developers, project implementers, community leaders, business groups, the families and the society as a whole. Special attention has been given to male members of the society as gender discrimination is found to begin at home. In order to create adequate and appropriate information for gender sensitization and for appropriate planning, there is a need for intra- household research which will provide information on relative condition, contribution and position of women vis a vis men.

### Theories Of Intra – Household Gender Relationship

Theories of intra household gender relationships indicate that status of women is related to their productivity, with significant impact of this relationship on the economic and social welfare of the household. These theories attempt to explain the interactions of cooperation, sharing, competition and conflict among and between family members. Relying on the perspectives of social harmony and social conflict, these theories vary from one extreme to the other.

The Neo –classical economic approach, which falls within the scope of New Home Economics, analyzes intra household relationships assuming a single utility function for the family as a unit. This argues that all members of a family ( men, women and children) act towards maximizing a single household utility function according to their comparative advantage.( Becker, 1981 ) However, the assumption of cooperation in intra household gender relationships is contested by feminists on the ground that the so called social compliance is really the expression of women’s subordination ( Kabeer, 1994). The gender role approach taken by neo- marxist theorists and dependency theorists bases its analyses on the concept of structural scarcity and argues that women in the household are exploited by men through economic misappropriation and marginalization from economic benefits. ( Sen, 1990).The gender role approach taken by other development sociologists and feminist economists focuses on socially determined gender division of labor resulting in subordination of women. The nature of women’s non-wage (unpaid) labor is linked to their subordination. ( Sen, 1990). Sex role socialization is seen as the key factor in curtailing women’s potential, shaping their attitudes, preferences and expectations. ( Kabeer, 1994).

The new home economics proposed investment in human capital of women( education ) and technology to women to be a solution to the Third World problems. The proponents of the gender role approach see faults in the socio political structure of production relationships and propose structural change for the empowerment of women. ( Beijing Declaration on FWCW, 1995). The first approach of the intra household gender relations assumes selflessness and good will. The second approach focuses on power and domination. ( Becker, 1981). The gender role theorists do admit that there exists a good will in the family but that good will is more associated with maternal preferences than paternal preferences. They argue that sacrifice of personal needs in favor of the well being of the other in the family appears to be the privilege of the less powerful members usually women and girls. ( Kabeer, 1994).

Allowing the entry of both cooperation and conflict relationships demonstrated by empirical evidences,

Sen (1990) perceives the household/family as a site of cooperative conflict. The members cooperate in adding to “total availability”, meaning the production of all goods and services for consumption. When it comes to dividing the total availability amongst members, however conflicts may arise. The proponents of this cooperative conflict paradigm argue that unequal autonomy and bargaining power of different members result in non investment in human capital, especially for women. Non investment in human capital, added with under consumption by women, leads to inefficiency. Gender equity and productive efficiency are likely to go together. Sen argues that access to employment and income equips women with more bargaining power ( Sen, 1990). Further, it is argued that effective independent rights in private land strengthens rural women’s bargaining power in ways that employment alone may not. IN fact, property rights provide women with more bargaining power to seek the get better remunerating employment. This is true because land rights not only strengthen women’s fall –back position within the household, but also in the market, community and the State as well. ( Bina Agrawal, 1994).

“Those who consider household as a cooperative unit recommend investment in human capital of women and provision of technology for women. For those who view household as a site of conflict, no development intervention will work unless existing socio-economic, legal and political structures are changed in favor of women. Those who see household as a site of cooperative conflict recommend employment opportunities to better equip women with more bargaining power. They further add that when women have greater bargaining power family resources will be distributed fairly among men, women, boys and girls with implications for their future efficiency and productivity. There are those who further propose property rights to women which increase their bargaining power not only within the family but also in the market at large.” ( Bhadra, 1997)

### Time use studies

Time use studies are now being conducted in a number of countries, mainly in developed regions. In several countries time use statistics have been collected by national statistical offices since the 1960s and in few even longer. Interest in these studies is also growing in developing countries. In recent years, time use methodology is being considered on an increasing basis as a tool for improving statistics on unremunerated work for both men and women. Gender and women’s advocates draw attention to its usefulness for assessing the amount of work done by women in comparison to men; valuing the contributions women make in their work within the household; and developing a more accurate and

realistic statistical picture of economic production. In developing countries time use studies have been undertaken but have mainly been small studies restricted to single or a few localities. These studies originated in the early 1900s as a means for analyzing various social phenomena and provided more comprehensive information on lifestyles of families and patterns of social life as defined by the allocation of time among several different human activities. In addition to their applications in the study of social change, division of labor and allocation of time for household obligations, time use statistics have been used for estimating the value of household production allowing for more objective comparisons with the overall value of national production. Time use studies can be used to assess how individuals spend their time on a daily or weekly basis and reveal the details of an individual's "daily life with a combination of specificity and comprehensiveness" not achieved in any other type of social survey. (UN Document, 1996).

Time use studies played a crucial role in documenting women's role in the Third World economic development. Time use measures became the only viable research instrument to document women's contribution to the family and the society. In developing countries, measuring and valuing household output is difficult due to a large portion of production and consumption happening without entering the market system. Additionally, women are primarily the ones who engage in unpaid subsistence agricultural and household production. It was the time use measurement of men and women which documented that a majority of household and agricultural work was performed by women and which accounted for the majority of real household income. Time use data brought about a dramatic change in the perception that women are dependents. Moreover, it established women as the actual farmer, contrary to the popular belief prevailing among development experts that farmers were most likely to be male.

### Evolution of time use studies.\*\*

( \*\* based on Walker and Woods – Appendix C)

Home economists initiated household time use studies in the US. This section of the literature review is devoted to the historical evolution of time use studies. The earliest recorded study of this kind was in 1915. In this initial stage, time use studies were found to be centered around specific household works. In the later half of the 1920s and in the 1930s, state or regional level time use studies were conducted, especially as measures of rural farm homemakers' household activities and workload. During the 1930s home economist's time use studies diversified the purpose from measuring home production to measuring leisure, quality of life and human energy cost of activities. It was during this period that time use gained popularity among sociologists. ( Walker and Woods, 1976).

As early as 1930s time use patterns and behaviors were applied to housing design and home planning. IN the late 1930s home economics time use studies were focused on employed homemaker's time use patterns, which in the 1940s extended to measuring work load and labor efficiency. Time was also beginning to be used as the measure of the cost of homemaking.

For the first time in the 1950s division of household work by family members was studied. This initiated gender and age analyses in household time use. It was during this period that comparative analyses of time use patterns were conducted. Of special interest were comparisons between rural and urban homemakers; full –time and part –time employed versus unemployed homemakers and homemakers form different socio-economic groups.

It was not until early 1960s that economists got into full fledged time use studies. The economists added new dimensions to the measurement of household time use, including it in urban planning and using it as a measure of economic contribution to the nation. This initiated national level panel studies. During the later half of 1960s, multinational comparative time use studies were also initiated.

Home economists remained faithful to their initial purpose of time use study as a measure of household production. But, they added new dimensions to their purpose by using the data to assign economic value to household work. With adequate data generated for a period of fifty years or more, home economists conducted longitudinal comparative time use analyses during the seventies, investigating the effects of technological and social change on household behavior. Economists ventured towards employing time use as a variable to explain family behavior such as fertility, investment in human capital, marriage and

divorce. Sociologists used time use as a tool to assess the impact of socialization on gender roles.\*\*

The multidisciplinary acceptance of time use to study household and the work done to improve it as a research tool has contributed to time use research emerging as one of the most accepted tools for analyzing and predicting household behavior. In 1975, Alexander Szalai presented a paper at the UN First World Conference on Women at Mexico city concerning the situation of women in the light of contemporary time budget research which was instrumental in the selection of time use instruments for status of women to be conducted globally during the UN Decade for Women (1975 –1985). Further, the last two world conferences held in 1985 and 1995 have also reiterated the need for these studies to provide a basis for estimating more fully women's work especially their unpaid work. These resolutions are based on the recognition that time use techniques for data collection have both analytical and measurement considerations. The Platform for Action adopted by the Fourth World Conference on Women held in 1995 calls on national, regional and international statistical services and relevant governmental and UN agencies to develop an international classification of activities for time use statistics this is sensitive to the differences between women and men in remunerated and unremunerated work. ( UN 1996 Para 206 g ).

Nepal also conducted status of women studies in the late 70s and used time use methods to measure household production. ( CEDA, 1981). It was time use analyses that documented women's contribution to agricultural and household work, confirming their contribution to the family/household and the national economy. These analyses were instrumental for incorporating WID policies in the national development agenda.

#### Time use study methodology

This section presents discussions on data collecting instruments for time use study and analyses of time use data.

##### Data collecting instruments

In the US, early studies used a clock-face chart with five minutes intervals, separate for AM and PM, hence representing 24 hours. In this clock-face, the respondents recorded their activities for the corresponding time. (Walker & Woods, 1976). Later, the so called “time diary” was developed as the time chart, with stylized work categories on the margins. The respondents recorded their time corresponding to the category of the work ( Walker & Woods, 1976). The occurrence frequency, duration and sequence of activities for 24 hours was recorded on the time diary. With

additional instruments other dimensions of time use could be measured, such as simultaneous activities recorded as primary and secondary tasks, location of the work, and other present when the task was performed etc.

Until today, time diaries are found to be the only viable method of obtaining valid and reliable data on activities (Sen ,1990). Researchers have applied recall methods to measure time used for activities. But, due to difficulty in recalling activities of the past and estimating actual time use, the time diary record is found to be of higher quality than recall diaries.( Sen, 1990 ). The observation method is the most reliable, as activities are observed directly by the enumerator. However, there is high risk of alteration of activities by respondents and a risk of high refusal rates. In addition, research costs become very high. The ethical question of intrusion into a household and /or individual privacy is also a major concern. To reduce validity problems random spot checking (observation) is to be used in places where record and recall methods are impossible. Overall analysis shows that the observation method would be extremely expensive.

Though validity , reliability and cost factors make the time diary the most viable method, it is impossible to apply in cases where the respondents are illiterate. Thus, in spite of its extensive use and refinement of methodology in developed countries, it is still problematic in developing countries due to illiteracy and cultural variations in conception, perception and reckoning of time. Researchers realized its worth in developing countries research.

There are instances of occasional innovations of time measuring instruments that may be applied with illiterate respondents without losing the reliability and validity of data. For example in 1979, a pictorial format was devised to record time used by farmers in India. (Sen. 1990). The pictures depicted various activities associated with rice farming. However this format allowed time measurement not in terms of clock time but in terms of the location of the sun ( rising sun, mid day sun,, setting sun). This relied on judged time rather than exact minutes/hours.

In the Nepalese Status of Women studies, observation methods were used . It was the only viable method without losing the reliability of data. The Status of Women study, 1981 used random spot checking and the study in 1993 used direct full observation ( Acharya and Bennett, 1981). Both studies were donor funded research , hence the cost was not a serious constraint.

### Time use analyses

Harvey (1984) suggested that there can be three levels of time budget analyses. In the first level of analysis, simple tabulations of activity duration, sequence and frequency are done. In the second level of analyses, multiple activity dimensions such as timing, location and social contacts are analyzed. In the third level of analysis, activities are analyzed in relation to each other. In Harvey's view the respondents is the unit of analysis but also suggests that time use analyses should treat the family as a unit.

Time use data analyses have been used for modeling behavior such as labor supply, earning differentials, marriage and the division of household responsibilities, child care and child development and wage rates. It has been also used for modeling leisure and work cycles, activity sequences and peaking and smoothing of time demand. (Walker & Woods, 1976).

Home economists have used it to assess the impact of technology on family relations and change over time in household production behavior. (Walker and Woods, 1976). Economists use this measure for modeling household production while sociologists use it to test their role model theories.

In WID research, analyses are concentrated on gender differentials. As it has been established that gender discrimination occurs within the household, the WID research focus is on analysis of intra-household differentials. These analyses require sufficient gender disaggregated data to enable a meaningful intra-household analysis. Though frequently interpreted as the intra-household gender differentials, data are usually analyzed in aggregated forms in terms of a total sample households. Individual data by household are not generally used in these analyses (W&W, 1976).

Time use studies have been used to measure production of household goods and services for the last eight decades. Time diary records, where respondents report their own time, are appraised to be the most viable instrument in terms of reliability, validity and cost factor. In order to institutionalize time use study in developing countries, there is a need to develop an instrument through which illiterate respondents are able to report their own time. When respondents are able to report their own time, problems of validity, reliability and cost factor will be mitigated. For WID/GAD research, gender disaggregated data must be generated. As the majority of populace in the developing world are illiterate there is a need to devise an instrument where self reporting of

activities by illiterate respondents is possible.

### **Study Design**

The study intends to analyze the time use by household members and thus their contribution to the household economy using the time use measurement designed and practiced in west as well as in the east. This way the study in actual intends to analyze the gender differentiation in the home economics of a household. The study would further account for the unaccounted and unpaid work of women, which mainly comprises of domestic work and work at home – be it agricultural or else. This study will take into account the members of the household of the sample households of the chosen village. This study further intends to analyze the situation of one of the villages of Nepal, which will be selected after extensive discussions with the involved and concerned people. The design of the study basically consists of a combination of face to face survey interview, recording time use through the self report record method, recall and record methods, visits by the enumerator, analysis of the pictorial activities etc. Both open and closed ended questions will be used and a tape recorder will also be used during the time of face to face interviews which will be transcribed later on.

However, the questionnaires will pre tested prior to the final data collection and even the pictorial format will be pre tested during the pre test sessions. Prior to the face to face interview a session on conceptual clarity will be held between the interviewer and the respondent.

By using all these techniques, I intend to conduct the study in detail and later on conduct a statistical analysis on the collected data to reach to appropriate conclusions and recommendations.

### **Selection of Sample**

This research will involve sampling at different level and the sampling technique will also vary at every level. After an extensive discussion with the concerned organizations and individuals, appropriate Village County of West Nepal is to be selected for the purpose of the study. I chose to study village of West Nepal since the west is the least explored area of the country and hence would like to add some facts to the literature of time use measure from an unexplored area. After selecting the Village County, I intend to meet with the chief, the local leaders and teachers of the village county, in order to select the village development committee ( VDC). There are nine wards within a VDC wherein the study is to be conducted. Taking ethnic groups of the village as clusters,

random sampling will be done. Three ethnic groups will be selected out of this random sampling . Thus, the study results can be generalized at least for those ethnic groups of west Nepal.

Ten percent household of the total households within each ethnic groups of the VDC, is to be selected through simple random sampling with a non – replacement method. This selection of households is to be done from the 1991 voters’ list available at the VDC office. After selecting the 10% of households of each ethnic group, the working population or the economically active population (years 16 – 50) of the selected households will be interviewed for the purpose of the study. Thus, the target population of the study would be the economically active people of the ten percent households of each ethnic group selected for the study. Further, the target population will also be oriented on the observation and reporting techniques of the pictorial time use measure.

#### Collection of Data

Four different sets of data will be collected. The first set of data will provide overall household information. The second set of data will provide information on household expenditure on clothing, education and medical care, the third set of data will provide the perceptions and attitudes of the target sample population. The fourth set of data will assess time used by family members on daily activities.

A paper and pencil questionnaire is impossible since the rural populace of Nepal is illiterate. Thus, the researcher will play the role of the enumerator along with some one hired from the village itself, to administer all instruments of research.

Instruments for data collection.

The instruments of data collection would be the four questionnaires, which will be used to assess different aspects at different levels of research. In addition to this the pictorial format of time use measure would supplement the data collection procedure.

- i. Household information questionnaire : this questionnaire will be administered at the beginning of the study to collect data on socio-economic and demographic variables and decision making patterns. Structured questionnaires will be administered through interviews. One adult from the household will respond to this household information questionnaire.

Tentatively, the questionnaire will include the following :

Information on caste; information on income (from farm income, from cottage industries and wage employment income of each economically active member of the household will be added to compute the total income of the household : as defined in the census norms of Nepal for rural household income.); information on literacy of men and women in the household; information on land size/ ownership of the household; information on family size (since Nepal has a joint family practice, all members living in the household constituted a family ( excepting guests ); information on number of cattle owned (since this variable would be an indicator of economic status it will be chosen under the study); information on number of children (The children living in the household may be of more than one set of parents who are living in the same household); information on decision making power ( respondents will be asked about decision making patterns for the following activities within the household – purchase and sale of land and house, purchase and sale of livestock, farming activities, purchase and getting of food, sharing of cooked food, buying of clothes for family members, education of children etc. The categories for the answer will be categorized as men only, men and women jointly and women only. These will be ranked from 1 to 3, respectively. The decision making power scored for each household will be computed by adding all seven decision making situations ( **CAN I DO THIS ?** ) .

ii) Expenditure information questionnaire

Expenditure data will be collected for expenses on clothing, education and medical care for each family member. The respondent for this questionnaire would be the same person who responded to the household questionnaire. Family expenditure data will be collected for a whole year. For this, the calendar will be divided into four seasons. Data from each household will be collected once in three months i.e. each season, totaling four encounters in a calendar year. I hope this will facilitate the respondent to remember the expenditure data accurately as recalling expenses for the past three months is easier and more accurate than recalling for one year. Providing a diary would have been helpful in escaping recalling problems, but since the target populace is illiterate this cannot be materialized. Data on the frequency of sickness and the frequency of medical care will also be collected

quarterly along with the expenditure data.

The mean of amount of money spent on men, women, boys and girls will be used as variables to perform gender analysis of intra household resource allocation for clothing, education and medical care for each ethnic group. This in turn will also be used to see the relationship between expenditure and gender, household income, literacy, decision making power and family size etc.

iii. Individual information questionnaires

Questionnaires will be administered to individual men, women, boys and girls ( aged 16–18 as CRC defines children) from the sample target population. Data will be collected on literacy/education, employment and income, attitudes and perceptions towards gender roles, family planning, children's education, women's participation in social and public activities etc. Additional data will be collected on assessment of work burden. The respondents will be asked to assess one's own work and that of one's counterpart in terms of human energy demand ( difficult, moderate, easy).

Both closed and open ended questions will be used to collect data. Open ended questions will be used to collect qualitative data. These data will be collected to obtain background information and findings from these questionnaires will be presented only in descriptive way. Further, these will be used to interpret and understand the behavioral aspect of the target population.

Note : during all these interview session I intend to tape record the answers while I take the interviews, so as to maintain the consistency of the answers while analyzing them. However, the use of tape recorder will also be pre testing to see the resistance of the respondents. If the respondents highly resist this method, then a note taker will be requested to take notes without interfering the process of the interview. This method is proposed to be adopted due to the descriptive nature of the interviews and to make sure that all required aspects of the question is covered and will be useful in analysis. In addition, tape-recording captures details, parenthetic expressions and conversational spacers (Weiss, 54).

iv. Time use record

A time record format will be administered to collect daily use of time by family members. Data will be collected from family members 16 years of age and above. Data will be collected four times during the calendar year in order to represent seasonal variations. The time use data will be collected once in every three months. This will be done to prevent disturbances to respondents during their own hours. However, the probable responding family members will be oriented on the methods of recording the time use and on reporting the same. This was the method used by the Status for Women studies in Nepal conducted by Center for Economic Development and Administration (CEDA) in 1981.

Further, one of the objectives of this study is to pilot test a research instrument that could accurately assess non-literate respondent's use of time by using a self reported record method. In order to design and evaluate the performance of the new instrument, a time use record format will be developed for this study through a panel discussion of experts in this field. Pictorial activities format once used in India, will be used and the pictorial activities will be placed adjacent to the clock face, so that the respondents could record their time for the corresponding adjacent activity ( see appendix).

Both record and recall methods are to be used in this study. The day after the respondent would record their time, the assigned enumerator from the village would visit the family and ask them to recall exact tasks they were doing the day before.

Participating families are to be presented with wall clocks. This is expected to serve two purposes. First, household members can reckon time more accurately when using a clock and second, since a clock is an expensive item and a status item in rural Nepal, it will serve as an incentive to the respondents to participate in the study and record their time use correctly.

To develop the pictorial format the daily activities of the households in the village will be observed. It will presented, discussed and revised. On the day of clock presentation, the enumerator and the researcher would teach the time recording format to family members and to mark it correctly. A blue pen will be used to mark the start of the activity and a red pen will be used to mark the end of the activity within the face clock. Every time a new activity is done the respondents will be requested to mark a line and every time they repeated the activity the line

marking would increase by the same times. The format would include both work and leisure related activities. Agricultural work, household work, income generating work, total work and leisure time will be calculated from this format. Here, again the agricultural work, household work and income generating work will be used as variables to perform the intra household gender analysis. Further, the total work will also be analyzed for its relationship to the three ethnic groups, age, gender, land size, number of animals, family size and number of children.

### **Data Analysis.**

The interviews will be of both qualitative nature with informal questions/answers sessions as well as quantitative nature with a more structured survey like questionnaire will be used. Therefore, the detail notes taken either through the tape recording or by the note taker will also be very important. Further, coding will be done of the received responses of the questionnaires.

Preliminary analysis of these interviews will be based on my field notes, supported by the transcripts from the recorded interviews serving as a reference. Further, analysis will be based on the observation of the pictorial time measure use and finally statistical analysis is also intended to be conducted through use of appropriate statistical tools. I intend to use computer software program ( most probably SPSS) for the statistical analysis portion of the study. However, the computer is only to take the tables for analysis, the final analysis depends on the researcher.

In order to perform the intra household gender analysis, gender differences in each household will be analyzed. And to see the general picture of each ethnic group the total household data of each ethnic group will be used. Further to get the greater picture of the village, total household data of all the households of all ethnic groups will be used. Further the total household data will be used to examine if ethnicity was able to explain the difference in the amount of time spent in various defined activities in the sample. Similarly, the total household data will be used to examine if any household and/or individual factors were able to explain variance in the amount of money spent on clothing, education and medical care for household members.

### **Statistical Analyses**

**T-test statistic** : in order to assess gender differentials within households, paired t-tests will be conducted. The paired t-test analyzes means of two dependent samples on a case by case basis. Hence paired t- test will be the most appropriate test statistic to perform intra-household gender

analysis.

Regression analysis : in order to examine the relationships of dependent variables - time use and expenditure – with the independent variables gender, age, decision power, literacy, family size, number of livestock, income level and size of land holding. Since the predictors are measured either as dichotomous or at interval/ratio variable level regression will be the most appropriate statistical tool to perform.

### **Hypotheses**

The study intends to test the following hypotheses to examine intra household gender differentials.

- i. H 1 : There is a significant difference in the amount of time used for agricultural work by men and women within the household, with women contributing more time. Similarly, there is a significant difference in the amount of time used for agricultural work by boys and girls ( age 16 – 18 ) within the household, with girls contributing more time.

To assess the difference between the mean amount of time in agricultural work used by men and women, and boys and girls within each household, paired t-test will be used to test the hypothesis.

- ii. H 2 : The amount of time spent by individuals on agricultural work is related to gender, age, size of landholding, number of animals, hours spend in income generating activities and family size.

A regression statistic will be used to find the relationship of the above hypothesis with amount of time spent by individual sample members in agricultural work as dependent variable.

- iii. H 3 : There is a significant difference in the amount of time used for household work by men and women within the household, with women contributing more time. Similarly, there is a significant difference in the amount of time used for household work by boys and girls ( age 16 – 18 ) within the household, with girls contributing more time.

To assess the difference between the mean amount of time in household work used by men and women, and boys and girls within each household, paired t-test will be used to test the hypothesis.

- iv. H 4 : The amount of time spent by individuals on household work is related to gender, age, size of landholding, number of animals, hours spend in income generating activities and family size.

A regression statistic will be used to find the relationship of the above hypothesis with amount of

time spent by individual sample members in household work as dependent variable.

- v. H 5 : There is a significant difference in the amount of time used for income generating activities by men and women within the household, with men contributing more time.

To assess the difference between the mean amount of time used in income generating activities by men and women within each household, paired t-test will be used to test the hypothesis.

- vi. H 6 : The amount of time spent by individuals in income generating activities is related to gender, age, size of landholding, number of animals, hours spend in income generating activities and family size.

A regression statistic will be used to find the relationship of the above hypothesis with amount of time spent by individual sample members in income generating activities as dependent variable.

- vii. H 7 : There is a significant difference in the amount of money spent for clothing between men and women in the household, with men getting the larger share. Similarly, There is a significant difference in the amount of money spent for clothing between boys and girls in the household, with boys getting the larger share.

To assess the difference between the mean amount spent for clothing for men and women, and boys and girls within each household, paired t-test will be used to test the hypothesis.

- viii. H 8 : The amount of money spent on clothing for individuals is related to gender, age, family size, household income and decision making power.

A regression statistic will be used to find the relationship of the above hypothesis with amount of money spent on clothing by individual sample members as dependent variable.

- ix. H 9 : There is a significant difference in the amount of money spent for medical care between men and women in the household, with men getting the larger share. Similarly, there is a significant difference in the amount of money spent medical care between boys and girls in the household, with boys getting the larger share.

To assess the difference between the mean amount spent for medical care for men and women, and boys and girls within each household, paired t-test will be used to test the hypothesis.

- x. H 10 : The amount of money spent on medical care for individuals is related to gender, age, household income, frequency of sickness and decision making power.

A regression statistic will be used to find the relationship of the above hypothesis with amount of money spent on medical care by individual sample members as dependent variable.

xi. H 11 : There is a significant difference in the amount of money spent for education between boys and girls in the household, with boys getting the larger share.

To assess the difference between the mean amount spent for education boys and girls within each household, paired t-test will be used to test the hypothesis.

xii. H 12 : The amount of money spent on education for individual child is related to gender, age, household income, number of children, decision making power and literacy of women.

A regression statistic will be used to find the relationship of the above hypothesis with amount of money spent on education for each individual child as the dependent variable.

Note : All these hypothesis is to be tested with all chosen three ethnic groups and inter ethnic comparisons could also be made after obtaining all the results.

### **Anticipated results**

The study will be reported both in qualitative and quantitative form, though descriptive method will be used more. The study intends to find the amount of time and money spent by household members in various defined activities and the differences of the same between men and women; and boys and girls. Further, the study intends to analyze the relation between the amount of time, money spent by household members and various identified variables such as gender, age, household income, literacy etc. Test of all the stated hypotheses will result in the anticipated findings of the study. In this way it is anticipated to conduct a thorough intra household gender analysis of work roles and resource distribution of resources.

Furthermore, since the study is pilot testing a new research instrument under a new situation of illiterate population, it is anticipated that the study will provide certain recommendations on the use of this tool.

### **Assumptions**

It is assumed that illiterate respondents are able to record their time use accurately in the newly developed format, after the provided orientations.

### **Limitations**

This study is a single village study with a unique data set. Hence the results cannot be generalized to other circumstances, though comparisons with ethnic groups of the west of Nepal is a possibility.

Further, this study is not exhaustive and does not analyze every aspect of intra household gender analysis of work roles, for example the time spent in child care and other such activities are missing. This expansion of study would be very useful and interesting but due to time and finance constraint, inclusion all aspects is an impossibility.

### **Time period**

I intend to complete the entire work within 18 months since the observation period itself is one calendar year. The first three months will be devoted to preparatory activities and the required pre test and the last three months will be devoted to preparing the final analysis and report.

### **Definition of Terms**

Household/Family – members related by marriage or birth living under the same roof and sharing a common kitchen. A family does not necessarily consist of husband, wife and children only. There may be more than two adults in household ( more than one man and/or more than one woman.)

Economically active population – as defined by the census of Nepal and as followed by the norms within Nepal, this includes working people between the age of 16 – 50.

Productive work – defined as work in agriculture, employment, construction, cottage industries and marketing. ( as defined by the Labor Ministry in Nepal.)

Reproductive work – defined as work in the household including fuelwood gathering and water fetching. ( Standards of Rural Development Ministry of Nepal.)

Non-productive work – defined as sleep, personal care, recreation and social activities.

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