

Gender Mainstreaming in Agriculture & Allied Sectors

Introduction

Rural women, mainly farmers, number at least 1.6 billion worldwide, and represent more than a quarter of the total world population. Nearly half of the world's farmers are women, and women comprise most of the agricultural workforce in developing countries. Approximately one third of the rural households in sub-Saharan Africa are headed by women. Women produce on average more than half of all the food that is produced (up to 80% in Africa, 60% in Asia; and 30 to 40 % in Latin America and Western countries). During 1990s, it was estimated that women farmers in sub-Saharan Africa were responsible for between 60 and 80% of all agricultural production, thus forming the economic backbone of the rural community.

Paradoxically, rural women's contribution to building social and economic capital remains concealed because they are invisible in plans and programs thereby denying them access to resources which could enhance their socio-economic contribution to society. Therefore women own only 2% of the land, and receive only 1 % of all agricultural credit, while only 5 % of all agricultural extension resources are directed towards them. The extremes of poverty and marginalisation that the inequitable access to resources exposes women to means that they are disproportionately exposed to "shocks" such as illness, death, floods and drought.

Rural poverty is deeply rooted in imbalance between what women do and what they have. Statistics show that almost 70% of economically active women in low-income food-deficit countries are employed in the agricultural sector and, therefore, play crucial roles in assuring food security. Despite this, rural women battle hunger and poverty on increasingly marginal land with meager resources and their voices are seldom heard among decision makers (FAO, 2007).

The rural-to-urban migration of men in search of paid employment and their rising mortalities are said to be leading to increased numbers of female-headed households in the developing world. This 'feminization of agriculture' has placed a considerable

burden on women's capacity to produce, provide, and prepare food in the face of considerable obstacles.

Despite the fact that women are the world's principal food producers and providers, they remain 'invisible' partners in development. Lack of available gender disaggregated data means that women's contribution to agriculture in particular is poorly understood and their specific needs ignored in development planning. This extends to matters as basic as the design of farm tools. But women's full potential in agriculture must be realized if the goal of the 1996 world food summit - to halve the number of hungry people in the world by 2015 – is to be achieved.

Gender Mainstreaming

Gender mainstreaming is "the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality".

Gender and Agricultural Development

Agriculture involves both self-employment and wage employment and accordingly requires precise information about who does what? In fact, the land holding of 75% of the farming community being small, the number of landless labourers has swelled up over time by working on others' farm. The situation thus demands an understanding of activity performance of men and women and the children – girls and boys- whose lives are fundamentally structured in different ways. Their living pattern, working pattern, interaction style and sharing of scientific information differ within the

socio-economic groups. Similarly, a gender-based division of labour is universal, but culture and community diversities cause differentiation.

Gender, therefore, has to be recognized as the social characteristic that cuts across caste, class, occupation, age and ethnicity. It is gender that differentiates the roles, responsibilities, resources, constraints and opportunities of women and men in agriculture for which precise gender information is the need of the day.

Building gender into agricultural development will lead to:

- Building inherent strength of women and men to mutually learn
- Overcoming gender based prejudices

Articulating gender perspectives in development activities

Gender Concepts

Gender

It identifies the social relations between men and women. It refers to the relationship between men and women, boys and girls, and how this is socially constructed. Gender roles are dynamic and change over time.

"Gender refers to the socially constructed roles and responsibilities of men and women, in a given culture or location. These roles are influenced by perceptions and expectations arising from cultural, political, environmental, economic, social, and religious factors, as well as custom, law, class, ethnicity, and individual or institutional bias. Gender attitudes and behaviors are learned and can be changed."

Sex

It identifies the biological differences between men and women.

GENDER	SEX
* Social differences between men and women	* Biologically determined differences between men and women
* Learned	* Universal
* Changeable over time	* Not changeable
* Have wide variations within and between cultures	

Gender Bias

The tendency to make decisions or take actions based on gender.

Gender Mainstreaming

Gender mainstreaming is the process of ensuring that women and men have equal access and control over resources, development benefits and decision-making, at all stages of the development process.

Gender Discrimination

Prejudicial treatment of an individual based on a gender stereotype (often referred to as sexism or sexual discrimination).

Gender equality

Gender equality is the result of the absence of discrimination on the basis of a person's sex in opportunities and the allocation of resources or benefits or in access to services

Gender equity

Condition in which women and men participate as equals, have equal access to resources, and equal opportunities to exercise control. Fair treatment for both women and men, according to their respective needs.

Gender issues

Specific consequences of the inequality of women and men.

Gender Relations

Ways in which a culture or a society defines rights, responsibilities and identities of men and women in relation to one another.

Empowerment

The process of generating and building capacities to exercise control over one's life.

Gender division of labour

The roles, responsibilities and activities assigned to women and men based on gender.

Gender Analysis

It provides disaggregated data by sex, and an understanding of the social construction of gender roles, how labour is divided and valued. Gender Analysis is the process of analyzing information in order to ensure that development benefits and resources are effectively and equitably targeted to both women and men, and to successfully anticipate and avoid any negative impacts development may have on women or men or on gender relations.

Sex disaggregated data

For a gender analysis, all data should be separated by sex in order to allow differential impacts on men and women to be measured.

Gender Planning

Gender Planning refers to the process of planning developmental programmes and projects that are gender sensitive and which take into account the impact of differing gender roles and gender needs of women and men in the target community or sector. It involves the selection of appropriate approaches to address not only women and men's practical needs, but which also identifies entry points for challenging unequal relations (ie. strategic needs) and to enhance the gender-responsiveness of policy dialogue.

Gender Roles

Both men and women play multiple roles in society. The gender roles of women can be identified as reproductive, productive and community managing roles, while men's are categorized as either productive or community politics. Men are able to focus on a particular productive role and play their multiple roles sequentially. Women, in contrast to men, must play their roles simultaneously, and balance competing claims on time for each of them.

Productive roles

Refer to the activities carried out by men and women in order to produce goods and services either for sale, exchange or to meet the subsistence needs of the family. For example in agriculture, productive activities include planting, animal husbandry and gardening that refer to farmers themselves, or for other people as employees.

Reproductive roles

Refer to the activities needed to ensure the reproduction of society's labour force. This includes child bearing, rearing, and care for family members such as children, elderly and workers. These tasks are done mostly by women.

Community managing role

Activities undertaken primarily by women at the community level, as an extension of their reproductive role, to ensure the provision and maintenance of scarce resources of collective consumption such as water, fodder, firewood etc. This is voluntary unpaid work undertaken in 'free' time.

Community politics role

Activities undertaken primarily by men at the community level, organizing at the formal political level, often within the framework of national politics. This work is usually undertaken by men and may be paid directly or result in increased power and status.

Triple role/multiple burden

These terms refer to the fact that women tend to work longer and more fragmented days than men as they are usually involved in three different gender roles- reproductive, productive and community work.

Gender Needs

Leading on from the fact that women and men have differing roles based on their gender, they will also have differing gender needs. These needs can be classified as either strategic or practical needs.

Practical Gender Needs (PGNs)

Practical gender needs are the needs women identify in their socially accepted roles in society. PGNs do not challenge, although they arise out of, gender divisions of labour and women's subordinate position in society. PGNs are a response to immediate and perceived necessity, identified within a specific context. They are practical in nature and often concern inadequacies in living conditions such as water provision, health care and employment.

Strategic Gender Needs (SGNs)

Strategic gender needs are the needs women identify because of their subordinate position in society. They vary according to particular contexts, related to gender divisions of labour, power and control, and may include issues such as legal rights, domestic violence, equal wages and women's control over their bodies. Meeting SGNs assists women to achieve greater equality and change existing roles, thereby challenging women's subordinate position. They are more long term and less visible than practical gender needs.

Feminization of Agriculture

In many parts of the world today, there is an increasing trend towards what has been termed as 'feminization of agriculture'. As men's participation in agriculture declines, the role of women in agricultural production becomes ever more dominant. In India, the major cause for this phenomenon is the migration of men from rural areas to towns and cities, in their own countries or abroad, in search of paid employment.

In Africa, for example, the male population in rural areas is falling rapidly, while the female population remains relatively stable. In Malawi, the rural male population has dropped by 21.8 percent between 1970 and 1990. During the same 20-year period, the rural female population declined by only 5.4 percent.

This trend has resulted in an increase in the proportion of households headed by women. Approximately one-third of all rural households in sub-Saharan Africa are now headed by women and in India the percentage of Women-headed Households account for 10.4 percent. Studies have shown that women heads of household tend to be younger and less educated than their male counterparts. They also generally have less land to work and even less capital and extra farm labour to work with.

With a shortage of labour and capital, women heads of household are often forced to make adjustments to cropping patterns and farming systems. These adjustments have resulted in decreases in production and, in some cases, shifts towards less nutritious crops. Not surprisingly, these households often suffer from increased malnutrition and food insecurity.

Gender Division of Labour

The division of labour between men and women in crop production varies considerably from region to region and community to community. However, it is usually men who plough the fields and drive draught animals whereas women do the major share of sowing, weeding, applying fertilizers and pesticides, harvesting and threshing.

Similarly, men tend to do the work of large-scale cash cropping, especially when it is highly mechanized, while women take care of household food production and small-scale cultivation of cash crops, requiring low levels of technology.

Women make an essential contribution to producing staple crops. In Southeast Asia, for example, it is women who provide up to 90 percent of the labour for rice cultivation. They do almost all the work of planting and transplanting, fertilizing, weeding, irrigating and harvesting. After the rice has been harvested, they women also carry out the post-harvest tasks before the rice can be stored, marketed, cooked or eaten.

Women also play a big role in growing secondary crops such as legumes and vegetables. In addition to providing essential nutrients, these crops are often the only food available during the lean season between harvests or when the main harvest fails. Home gardens, often tended almost exclusively by women, also claim precious labour-intensive time.

Despite their complementary roles in agriculture, studies have shown that in almost all societies, women tend to work longer hours than men. The difference in workloads is particularly marked for rural women, the world's principal food producers. Women are involved in every stage of food production and, although there is a gender-based division of labour, women do tend to shoulder the larger share. In addition to food production activities, women have the responsibility of preparing and processing the food while fulfilling their fundamental role of nurturing and caring for children and attending to elderly members of the household.

The absence of male labour, however, may force women with an expanded workload to grow less labour intensive - and often less nutritious - crops with a reliance on child labour. This has serious implications both for the family and the human capital of the country. Technological innovations can provide important opportunities to free women's time, boost women's production potential as well as improve their quality of life and that of their families.

The division of labour between genders still remains poorly understood. This is because much of women's work in crop production consists of unpaid labour in fields that produce for the household rather than the market. As a result, women's work goes unrecorded in statistics. Only by the collection and analysis of such gender disaggregated data will development strategies target women as active and equal partners in agricultural development.

Credit Support for Women Farmers

Credit and capital are basic requisites to increase agricultural production. Women and men farmers need short-term credit to buy improved seeds, fertilizers, insecticides and herbicides and to hire farm labourers to work in the fields and help with post-harvest operations. And they need long-term credit to invest in more efficient technologies - irrigation, labour-saving tools and implements and transport - and to set up new enterprises, if conditions are favourable. Yet, throughout the developing

world, and even in cases where they are acting as heads of their household, women are denied full legal status that would grant them loans. This limited, and often complete lack of, access to rural financial services hampers women's efforts to improve or expand their farm activities so as to earn a cash income.

Although both women and men small farmers have problems acquiring credit in developing countries, the situation facing women is more serious because they lack collateral. As men are the legally recognized landowners, it is they who provide the collateral. When they migrate to towns and cities, leaving women to manage the household farm, the problem is clearly compounded. Ironically, both studies and experience show that, when women succeed in obtaining credit, they are more reliable than men in their debt repayments.

A number of factors determine the reluctance of banks and credit associations to lend to women:

- they tend to be inexperienced borrowers - both a cause and a consequence of the problem;
- they usually request small loans;
- they are not normally involved in the development and extension programmes or structures that act as an interface with lending institutions;
- widespread female illiteracy means that many are often incapable of following application procedures.

Women's limited participation in male-dominated farmers' associations and cooperatives also reduces the likelihood of their receiving credit when it is allocated. Setting up revolving funds and credit schemes harnesses the potential of rural women to become full partners in sustainable development

Extension Support for Women Farmers

Agricultural extension programmes ensure that information on new technologies, plant varieties and cultural practices reaches farmers. However, in the developing world it is common practice to direct extension and training services primarily towards men. A recent FAO survey showed that female farmers receive only five percent of all agricultural extension services worldwide and that only 15 percent of the world's extension agents are women.

Studies on agricultural extension have highlighted a number of weaknesses in reaching rural women. Traditionally, most extension services have been devoted to farmers who own land and who are willing and able to obtain credit and invest it in inputs and technological innovations. Since women often lack access to land or access to other collateral with which to obtain credit, extension services, unintentionally, bypass women.

For too long, policies have been based on the assumption - proved wrong by studies - that information conveyed to the male head of a household would be passed on to its female members. But men do not necessarily discuss production decisions with their wives or transfer extension knowledge to them. Furthermore, policy-makers fail to recognize that men and women are often responsible for different crops, livestock, tasks and income-generating activities and that their extension needs consequently differ.

Extension services usually focus on commercial production rather than on subsistence crops, which are the primary concern of women farmers and also the key to food security in developing countries. Extension agents will often choose to work with a few farmers judged to have a progressive attitude, while neglecting the resource-poor and landless, including women. To compound the problem, extension meetings are

often scheduled at times when women farmers are unable to attend because of their other household responsibilities.

As rural women are a vital link in agricultural development, it is essential that they take their place alongside men as full participants in and beneficiaries of extension programmes.

Gender Issues in Agriculture

Over-burden of Work

Rural women are much more over-burdened than men owing to their multiple-occupations. Researches on women in agriculture have revealed that on an average women work for 15-16 hours a day. Studies further point out that farm activities, which are time and labour intensive, monotonous, repetitive and more drudgery prone, are generally performed by women. Since these operations are done manually, they cause considerable physical and mental fatigue and health problems.

Impact of Technology

Some of the new agricultural technologies are reported to have affected farmwomen adversely. Green revolution had led to the dispossession of small women land-holders, who have been forced to join the ranks of wage earners. Wherever the new agricultural technology led to multiple cropping, the work load of women has increased. While a number of tasks performed by males have been mechanized, the tasks usually allotted to women continue to be manual and suffer from drudgery. Even where improved techniques have been found for the women's activities, there is not sufficient access to training in such techniques.

Facilities and Support Services

There is rigidity for female labourers in terms of working hours, place and duration of work. Because of this, children are neglected and health of women is also adversely affected. Lack of adequate support services like child care services-creche, balwadi, adequate maternity and health care- lack of safe drinking water etc. further add to their problems.

Development Bias

Despite the contribution of women in the production process, persistent bias of development planners in treating them primarily as consumers of social services rather than producers, kept them away from the development programmes in agriculture and allied sectors.

Women suffer from a statistical *purdah* as a result of which their contribution is not recognized. They often have heavier workloads than men and bear virtually sole responsibility for family welfare and household management. However, they have limited control over productive resources. Gender discrimination, rooted in law and custom, is pervasive and impedes socio-economic development.

Constraints to Women's Access to Resources

Many of the constraints that rural women confront are similar to those all resource poor farmers confront such as lack of access to land, credit, training, extension and marketing facilities. But, for social and economic reasons, women's constraints are even more pronounced and, in general, development interventions that seek to remove constraints for poor farmers do not reach women.

Consequently, the development of technologies specifically tailored to women-specific occupations and the involvement of women in technology development and transfer

have received inadequate attention from both scientific and administrative departments of governments.

Access to Land

Women's lack of access to land or insecure tenure continues to be a major obstacle to increasing their contributions and benefits. When women have access to land, they often do not have secure tenancy and tend to have smaller and less productive plots in comparison with men. While land access is increasingly problematic for poor men and women, women's access has further restriction by inheritance laws and customs. Rural women-headed households are especially affected by land constraints.

Access to Credit

Women are better credit risks. In places where women are legally entitled to access to financial institutions, they face problems getting loans because they often belong to the poorest sector of the rural population. Rural financial institutions are also often hesitant to accept women clients because they, in an even greater proportion than men, cannot fulfill collateral requirements, are inexperienced borrowers, do not have access to extension and marketing services and cannot fulfill application requirements.

Access to Markets

Women engaged in agriculture, forestry and fishery tend to produce small quantities and have poor access to marketing boards and cooperatives. Therefore, women sell mainly to private traders and have low bargaining power. Institutions which promote women's group access to market should be strengthened. Successful examples are of SEWA, Gramin Bank, SHG Federations etc.

Research and Technology Development

Women only benefit from agricultural support programmes if the information, technology and methods imparted are relevant to their production activities.

Agricultural research is generally very less oriented towards adapting technology to women's physical capabilities or towards addressing their tasks. Women's low productivity stems mainly from lack of appropriate technology.

Access to Extension and Training

Women farmers usually have been neglected in extension efforts. Recently, the need for innovating changes in extension programmes for women farmers is being felt. The Central Sector Scheme "Women in Agriculture", which started on a pilot basis in 1993-94 in seven states, has shown encouraging results and was expanded to a few other states.

The need for capacity building and skill up-gradation of farmwomen is now receiving the priority it deserves. Special extension and technology dissemination programmes for women are being implemented.

Emphasis in Various Plans

There has been a significant shift in the approach towards the well being of women from welfare during 1950s to development during 1970s and to empowerment during the 1990s.

The strategy of the 8th Five-Year Plan was to increase participation of women in economic activities by getting them organized, along the cooperatives and trade union lines, and expanding their access and control over resources through legal and administrative action.

The 9th Five-Year Plan has identified empowerment of women as an objective and called for the preparation of component plans for women in every sector of development. This has created an unprecedented opportunity for ensuring that women's needs and perspectives are adequately reflected in the plan-process. There

is now a need to engender the development process. Attention in this direction would require identification of major constraints that hamper the productivity of women farmers, and recommend appropriate policy and institutional measures to overcome those constraints. These measures may be in terms of separate training for them; preferential membership in the rural cooperatives, access to technology, credit and marketing; and imparting new skills through a combination of training, practical demonstrations supplemented with hands-on experiences in the field.

The Agricultural Policy 2000 has also highlighted incorporation of gender issues in the agricultural development agenda recognizing women's role as farmers and producers of crops and livestock, as users of technology, as active agents in marketing, processing and storage of food and as agricultural labourers.

The policy stated that high priority should be accorded to recognition and mainstreaming of women's role in agriculture. Appropriate structural, functional and institutional measures would be initiated in the 10th Plan to empower women and build their capacities and improve their access to inputs such as land, credit and agricultural technology.

Gender Analysis

Gender analysis is the first and most critical step forward towards gender-responsive planning and programming. It involves the collection and analysis of sex-disaggregated information. It examines the differences, commonalties and interactions between women and men. Gender analysis examines women's and men's specific activities, conditions, needs, access to and control over resources, and access to development benefits and decision-making.

There are several frameworks and methodologies to conduct a Gender analysis in development related fields: The Moser Framework, the Harvard Analytical Framework, the Social-relations Framework, the Longwe Framework and more. Each model has its

strengths and weaknesses. Some are useful for micro-planning and give greater importance to gender roles (Harvard Framework), while others emphasize the enquiry into social relations. Some have been designed to exclusively look at women's empowerment (Longwe Framework).

To conduct a Gender Analysis, a core set of issues should be addressed. These are:

Women's and men's roles.	Who does what, with what resources? Paying particular attention to variations within sub-groups of women and men (eg. elderly women, adolescent girls, men from urban areas etc). Typically, women perform three kinds of roles: - Productive roles (paid or not); - Reproductive roles (sustaining family living conditions and basic needs—usually unpaid work) and - Community role.
Factors that shape gender roles and the gender division of work	<i>Depending on the circumstances, traditions and institutions that shape gender roles represent constraints and / or opportunities for women and men. Understanding to what extent, and when, they are critical to designing the programs and projects suitable to the community</i>
Access to and control over resources and opportunities, and their systems of distribution	Not all men and women have the same access to and control over resources and opportunities. Understanding the mechanisms and rules by which the resources and benefits are distributed is important to assess the situation of women vis-à-vis men (and vice versa) and determine the most effective entry points for action.
Access to and participation in decision making processes	Who decides? How are decisions taken concerning women's and men's lives and those of their families? Are women and men equally represented or given an opportunity to influence such processes?
Men's and women's practical and strategic needs and interests.	Given their respective roles, who needs what for what purpose?

The format below can be used for analysis of roles played by men and women in different crop production activities, livestock rearing, household and off-farm production activities. Participation of both male and female members of the households should be ensured for analyzing the activities performed in each sector.

Gender Analysis of Activities

	Males	No. of days	Females	No. of days
Crop Production				
Crop				
Field 1				
Task –1.....
Task – 2
Task – 3
 Livestock Production				
Animal				
Task –1.....
Task – 2
Task – 3
 Total				

The following table can be used in a focused group discussion for understanding the access and control profile of men and women over different resources, in a household and community.

Access & Control Profile

Resource	Access		Control		Comment
	Women	Men	Women	Men	
Land					
Equipment					
Labour					
Cash, Gold / Jewellery					
Employment Opportunities					
Education/Trainings					
Others					

The information generated using the above tables will help the extension functionaries and the community to understand the existing scenario of gender division of work/roles, work load and the time spent on different activities. Further, it will be helpful to plan the extension activities as per the needs of the farming community.

Case Study

a) Agriculture

In the Reddiarchatram region of Dindigul district in Tamil Nadu, the organization M.S. Swaminathan Research Foundation (MSSRF), introduced an eco technological approach for pest control in the form of bio-pesticides at farm level. The technology involves the breeding of a Parasitoid, Trychogramma, for killing the eggs laid by pests like Heliothis from green worms, which caused crop loss to farmers.

The technology was introduced primarily through the involvement of women from landless and marginal landholding families, who were formed into SHGs. The objective was to address the problem of pest control and management and enhancing incomes, while generating self-employment opportunities for poor women and inculcating them new skills. The women were trained in the new technology and the management of the centre. The technology has been well received by the farmers, given its cost-effectiveness and easy adaptability at farm level. The process has brought women into new skills, generating employment and incomes for many poor women. Women manage the centre independently and have evolved as trainers, while linking up with commercial banks in the area and with farmers associations to spread the technology. However, larger questions of changes in gender relations and male attitudes towards women coming into new skills need to be looked at more closely. Meanwhile, given the fact that most of the women in the project are from landless and marginal holding families, other larger questions related to their strategic interests like land entitlements and ownership over productive assets remain unaddressed within the project.

Questions for case analysis

1. What was the objective of the program?
2. What were the interventions undertaken?
3. What was the impact on gender and Key lessons learnt?

b:) Community Biogas Plant

Introduction of a Community Biogas Plant (CBP) in a village and ensuring its successful sustenance is not easy as the project demands the cooperation of both men and women of the village as a whole. As one *Sarpanch* very aptly put it, "it is not managing the plant which is difficult, the tough part is managing the people." It is also important that any technology that supplies cooking energy should obviously be directed towards women. To cite an example, a Community Biogas Plant (CBP), which was set up in Fateh Singh ka Purwa, a village in Etawah district of Uttar Pradesh, was the first such plant to serve an entire village. Technologically, this demonstration plant was a success but socially it was a failure. Trouble started after the plan ran successfully for a year. Male community leaders pointed out that they were not interested in energy for cooking and would rather have energy to power irrigation pumps, chaff cutters and milling machines. Women were primarily dependent on the plant for their cooking requirements and it was decided without consulting them that gas supply would be limited to two hours in the morning from 8-10 a.m., and by then women were already in the fields. This fact was completely ignored by the CBP organizers. For the women, the Plant did not even provide 25% of their day's cooking needs and they had to look again for wood and prepare dung cakes. The new technology of CBP had also increased the women's dependence on the men even for routine cleaning of the burners. The technology was clearly not under the control of women. In the light of conflicting priorities and needs on the gas by women and men, women's cooking energy needs got relegated to second place.

Questions for case analysis

1. What was the objective of the program?
2. What were the interventions undertaken?
3. What was the impact on gender and Key lessons learnt?

c. Potable Water

This case study focuses on development work in a community of 110 families in a village in Himachal Pradesh. Here, the women had to walk two kilometers down a very steep, muddy path to get water. Twice each day, they filled their cans with water and carried the 20-litre cans on their backs up the steep hill. Even pregnant or sick woman did this.

In 1998, the village panchayat got some additional funds and decided to invest the same in a fruitful manner. A meeting of the villagers was called and which was attended by 30 men and only 5 women. The women rated their difficulty in getting water as the biggest problem. While the men, who never fetch water, rated this problem as fifth priority. Accordingly, the investment was diverted to the priorities of the men. The women continued to fetch water from long distance.

In 2003, the Foundation for Community Development, an NGO, visited the village and organized meetings in the community with the active involvement of men and women in equal number. During these meetings, the members identified their problems and identified which projects would benefit both men and women. They used Gender Analysis Matrix, which enabled them to understand the potential impact of need of potable water at the level of the women, men, household and the community. This helped in prioritizing need for potable water as priority one and deciding the location of the well. *The well was constructed and equipped with a motor pump that ejected water into a large well constructed.* Today the water project is completed and potable water is easily accessible in the community.

To quote Dr. M.S. Swaminathan, "if men had to fetch drinking water, then 2,30,000 villages would not have remained without drinking water after many decades of planned development".

Questions for case analysis

1. What was the objective of the program?
2. What were the interventions undertaken?
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Gender Budgeting

Gender Budgeting is a dissection of the Government budget to establish its gender-differential impacts and to translate gender commitments into budgetary commitments.

Gender Budgeting looks at Government budget from a gender perspective to assess how it addresses the needs of women in areas like health, education, employment, agriculture, rural development etc.

Gender Budgeting does not seek to create a separate budget but seeks affirmative action to address specific needs of women.

Gender Responsive Budgeting initiatives provide a way of assessing the impact of Government revenue and expenditure on women.

Why Gender Budgeting?

Budgets are universally accepted as powerful tools in achieving development objectives and act as an indicator of commitment to the stated policy of the Government. ***National budgets reflect how governments mobilize and allocate public resources, and how they aim to meet the social and economic needs of their people.*** The rationale of gender budgeting arises from recognition of the fact that national budgets impact various sections of the society differently through the pattern of resource allocation and priority accorded to competing sectors. Women stand apart as one segment of the population that warrants special attention due to their vulnerability and lack of access to state resources. ***Thus, gender responsive budget policies can contribute to achieving the objectives of gender equality, human development and economic efficiency.*** The purpose of gender budgeting exercise is to assess quantum and adequacy of allocation of resources for women and establish the extent to which Gender commitments are translated

in to budgetary commitments. This exercise facilitates increase in **accountability, transparency and participation of women in the community.** The macro policies of the Government can have a significant impact on gender gaps in various macro indicators related to health, education, income, etc. Gender mainstreaming **requires gender responsive policy.** **When gender equality considerations are incorporated into policy making, the concerns and needs of both women and men become integral part of the design, implementation, monitoring and evaluation of policies and programmes in all sections of society.**

Gender Mainstreaming- The new mantra

The conventional approach to Gender budgeting, i.e. isolating public expenditure- direct and indirect – for women, would continue to be a core activity under the broad gender budgeting exercise with future action concentrating on fine-tuning methodology and universalizing the tools for application at all levels of public expenditure.

However, a broader perspective is emerging under the concept of Gender Budgeting- **Gender Mainstreaming.** The gender perspective on Public Expenditure and Policy is no longer restricted to the realm of social sector Departments like Education, Health, Rural Development etc. All areas of public expenditure, Revenue and Policy need to be viewed with a gender perspective.

It is necessary to recognize that women are equal players in the economy whether they participate directly as workers or indirectly as members of the [care economy](#). To that extent, every policy of the Government- fiscal, monetary or trade has a direct impact on the well being of women. Thus it is not adequate to analyze in detail, allocation of resources for a few sectors of the economy, which are traditionally considered as women related. The analysis has to cover every rupee of public expenditure. It has to cover the way

schemes are conceptualized and how women friendly they are in implementation and targeting of beneficiaries.

Tools of Gender Budgeting

Guidelines for Gender Sensitive Review of Public Expenditure and Policy

These have been framed by the Department of Women and Child Development, Govt. of India in the form of checklists I and II. Checklist I is for programmes that are beneficiary oriented and consciously target women. Checklist II covers mainstream sectors.

Checklist I for Gender Specific Expenditure

Conventionally, gender budget analysis, by way of isolation of women related expenditure, has been carried out for **Ministries/Departments** like Health and Family Welfare, Rural Development, Human Resource Development, Urban Employment and Poverty Alleviation, Youth and Sports Affairs, Labour, Social Justice and Empowerment, Tribal Affairs, Drinking Water, Small Scale Industries, Agro and Rural Industries, Science and Technology, Non-Conventional Energy Sources, Textiles and Agriculture.

Suggested steps that may be undertaken by these various Ministries/Departments who are running programmes/schemes of gender specific nature i.e. where the targeted beneficiaries are primarily women are as follows:

Planning and Budgeting

- **List of schemes and programmes**, which are **gender specific**

- Briefly indicating **activities undertaken** under programmes for women.
- Indicating expected **output indicators** like number of women beneficiaries, increase in employment of women, post-project increase in resources/ income/ skills etc.
- **Quantifying allocation of resources** in annual budget and physical targets thereof.
- Assessing **adequacy of resource** allocation in terms of population of targeted beneficiaries that need the concerned schematic intervention, the trend of past expenditure etc.

Performance Audit

- Reviewing actual performance- physical and financial *vis a vis* the annual targets and **identifying constraints** in achieving targets (like need for strengthening delivery infrastructure, capacity building etc.)
- Carrying out **reality check- Evaluation of programme intervention**, incidence of benefit, identifying impact indicators like **comparative status of women before and after the programme etc.**
- Compiling a trend analysis of expenditure and out put indicators and impact indicators.

Future Planning and Corrective Action

- [Addressing constraints identified.](#)
- Establishing requirement of resources in terms of population of targeted beneficiaries/magnitude of perceived problems like IMR, MMR, literacy ratio etc.
- Reviewing adequacy of resources available – financial and physical like trained manpower etc.

- Planning for modification in policies and/or programmes /schemes based on results of review.

Checklist II for mainstream sectors (General schemes)

Mainstream sectors like Defence, Power, Telecommunications, Transport, Industry, Commerce etc. may consider adopting the following checklist to determine the gender impact of their expenditure.

List of all programmes entailing public expenditure with a brief description of activities entailed.

Identifying target group of **beneficiaries/users**.

Establishing whether users/beneficiaries are being categorized by sex (**male/female**) at present and, if not, to what extent would it be feasible.

Identify possibility of undertaking **special measures** to facilitate **access of services for women**- either through affirmative action like quotas, priority lists etc. or through expansion of services that are women specific like all women police stations, women's special buses etc.

Analyzing the **employment pattern** in rendering of these services/ programmes from a gender perspective and examining **avenues to enhance women's recruitment**.

Focus on **special initiatives** to promote **participation of women** either in employment force or as users.

Indicating the extent to which **women are engaged in decision-making** processes at various levels within the sector and in the organizations and initiating action to correct gender biases and imbalances.

These exercises can be commenced by each Ministry/Department of the Government, to start with, for a few select programmes/schemes which may be selected either in terms of their perceived gender impact, or based on considerations of heaviest budget allocation. Based on the result of carrying out the above steps, the gender budgeting exercise may be institutionalized in the manner detailed in checklist-I

A few illustrative examples of gender initiatives in mainstream sectors are given below: -

Priority in awarding commercial/ domestic power connections for women entrepreneurs, widows, households headed by women etc.

Priority in allocation of industrial licenses/commercial plots/petrol pumps and gas stations for women, women cooperatives/self help groups etc.

b. Gender Profile of Public Expenditure

This entails review of all schemes and public expenditure from gender perspective and isolating the gender component by way of expenditure and physical targets. Trend of the gender component is indicative of extent to which budgeting is gender responsive.

c. Beneficiary Needs Assessment

Establishing requirements from the point of view of women and reviewing effectiveness of public expenditure accordingly.

d. Impact Analysis

Establishing actual impact of public expenditure and policies from gender perspective, through monitoring, evaluation and field level surveys. This would include tracking flow of intended benefits.

e. Gender-Disaggregated Public Expenditure Benefit Incidence Analysis

This entails analysis of the extent to which men and women benefit from expenditure on publicly provided services.

Role of Gender Budgeting Cells at State level

Act as a nodal agency for all gender responsive budgeting initiatives.

Pilot action on gender sensitive review of public expenditure and policies (Expenditure/Revenue/Policies/Legislation etc.) as per Checklist I and II

Guide and undertake collection of gender-disaggregated data for target group of beneficiaries covered under expenditure, revenue raising/ policy/ legislation

Guide gender budgeting initiatives within Departments as well as in field units responsible for implementing government programmes.

Conduct gender based impact analysis, beneficiary needs assessment and beneficiary incidence analysis to

- Establish effectiveness of public expenditure
- Identify scope for re-prioritization of public expenditure
- Improve implementation etc.

Collate and promote best practices on participative budgeting for and implementation of schemes

Guidelines for Mainstreaming Gender

Gender must be integrated into **ALL** stages of the project cycle.

Project formulation and design

1. Ensure gender is addressed during fact-finding missions and incorporated into the project concept/outline paper, over viewing the different roles, functions and needs of women and men in the sector;
2. Ensure gender is incorporated into the terms of reference for the identification/ formulation mission to address and analyse the issue;
3. Employ a gender specialist or a social development specialist with gender expertise to assist in the design, monitoring and evaluation of the project. Also employ/deploy staff (both men and women) in proper ratio at decision making level and field level positions.
4. Separate 'data by sex' in all baseline studies and identify gender specific indicators from the baseline studies;
5. Undertake participatory rural appraisal activities that involve community Level women and men actively;
6. Assess the gender capacity of the implementing institutions as a part of overall capacity development;

Project implementation and monitoring

1. Involve gender specialists in project monitoring;
2. Consult with the women's groups or their representatives to ensure that women's needs are addressed in project activities;
3. Devise and measure gender indicators to differentiate male and female beneficiary outcomes;
4. Ensure programme staff monitor project disbursements to ensure that inputs are used in such a way as to ensure women have equal access to project resources and benefits;
5. Strive towards equal representation of women and men in project management and meetings
6. Ensure gender issues are raised/on the agenda for meetings and reviews;
7. Ensure progress reports detail data disaggregated by sex and that they analyse gender issues;
8. Conduct gender analysis training for your staff and counterparts or fund a gender specialist to do this; Strive towards equal representation of men and women in all training activities.

Project Review and Evaluation

Ensure the programme staff understands and applies gender indicators of success;

Impact of the project interventions on men and women in terms of.....

1. Strengthening leadership and capacities of women and men
2. Gaining new skills (financial, managerial, organizational, technical etc)
3. Access and control over resources and technology as against the situation prior to the intervention

4. Impact of programme in terms of increased economic returns and enhancement of new economic opportunities for men and women
5. Nature of sharing benefits from programme between men and women
6. Impact of the programme on women's practical and strategic gender needs (education, health, improved employment opportunities, political status, violence, land entitlements etc.)
7. What were the driving and restraining factors in the process of planning, implementation and monitoring of the project?
8. What are the key lessons learnt?

Strategies for Mainstreaming Gender

1. Organizing Women Groups.
Male extension workers can be trained to work more closely with women in settings that are culturally acceptable, such as women groups.
Such groups can also improve access to infrastructure.
2. Technologies to reduce energy and time spent, particularly the household and farm production activities. Extending the technological innovations such as weeders, paddy threshers, winnowers, sprayers, harvesting tools, parboiling units, maize shellers, dal making machines etc., will reduce the burden of women.
3. Increasing the bio-mass production to meet fuel needs, planting of fast growing fodder in common lands and developing mechanisms for sharing the fodder helps women in saving lot of time and devote this time for income generating activities.
4. Innovative credit programmes using non-traditional forms of collateral and local institutions (women groups) can ensure that women are able to obtain access to credit.

5. Identifying the right training and extension needs of women is one of the most important steps in initiating any developmental programme.
 - * **Gender Analysis:** Gender Analysis of activities, resources, constraints, implications and benefits should be understood using Participatory Approach. This information should be taken into consideration for needs assessment. The ability of staff members / extension functionaries to do this has to be built up.
6. Giving women farmers more access to meetings, trainings, exposure visits and demonstrations and organizing training programmes based on the needs of the women. Institutional and village based trainings to be organized as per the convenience of the women farmers.
7. Where severe fragmentation exists, collective farming should be encouraged by women.
8. Farmer to farmer training or participatory training should be encouraged.
9. Active women can be selected, trained and provided with inputs and credit to practice improved technologies. Their fields can be used as demonstration plots for training other women.
10. Recruiting more women extension workers from rural areas and training them.
11. Female para-extension agriculturists, who are relatively uneducated, can be posted in their own villages with short crash courses on agriculture.
12. Appointing female supervisors and Subject matter specialists (SMSs).
13. Making better use of male extension agents.
 - Change the stereo-typed attitude of male agents with regular gender sensitization courses
 - Increasing awareness of gender roles
 - Developing skills in use of language and communication to suit women
14. *Using women as contact farmers or farmer friends.*
15. Crèches for children of women farmers. This will enable girls to go to schools.
16. Proper health care support for girls and women.

17. Most of the micro enterprises undertaken by women are based on the skills and raw material available rather than considering the market needs and market dynamics. In-depth marketing study would help identify effective marketing strategy for products. Cooperative marketing of products and assigning brand names for the products would also be helpful in finding sustainable markets.

While developing farm women programmes, the cost of the hiring consultants to conduct market analysis and market development should be kept in mind.

Conclusion:

The Need for Different Strategies

The involvement of women in crop production varies according to the type of crop grown and the cropping systems and the socio-economic status of the family. There is also a need to make distinctions between the involvement of women as agricultural labourers and involvement of women in agricultural operations on their own farm. In relatively prosperous areas where land holdings are large and most of the agricultural operations are mechanized, women play only a marginal role. The women from poor families work as agricultural labourers irrespective of the community to which they belong. Keeping milch animals, small ruminants and backyard poultry is an important source of income for poor farm families and agricultural labourers.

The problems of tribal women are different from other rural women and they need a totally different approach. For instance, majority of the workers involved in collection of non-timber forest produce (NTFP) are women, particularly tribal women. However, approximately 70% of the NTFP collections take place in the six states of the central belt; Maharashtra, Madhya Pradesh, Chhatisgarh, Bihar, Orissa and Andhra Pradesh and many tribal women face several constraints operating in the NTFP economy. This is because they spend a considerable amount of time in fetching water and, therefore,

do not have the time to add value to minor forest produce (which would help to increase their income). The women who bring produce to the market are also exploited because they lack knowledge on proper weights and prices for the timber and there is a language barrier too (traders are often from the plains with whom tribal women find difficult to communicate and bargain for prices). Programmes for tribal women, therefore, need a different approach to help overcome some of these constraints.

It would be a mistake to view rural women as a homogeneous social classification or to derive policies and services for “women in agriculture” that are not based on empirical research that captures this diversity (jiggins et al, 1997). Thus, there should not be any centrally generated blueprints for tackling women related issues in agriculture. It is important to recognize the various categories of women farmers that exist and their needs in the agriculture sphere and from there to develop appropriate strategies to assist them e.g. whilst some parts of India require trained women to reach women farmers, others may require trained women as motivators only, and other areas may require the male agricultural officers to be trained on women’s issues to disseminate technology to women.

PRA TECHNIQUES

A. PRA is both an attitude and a methodology. It is one of the tools of surveying that helps outsiders to understand the village systems, dynamics and politics by using various techniques as well as by methods of direct observation and discussion. These methods or techniques often produce interesting and authentic information of the village. Useful insights are also gained. The process of understanding the agro eco system and the social organization can only be successful with the total involvement of the village people and the officials concerned.

The need for PRA

- 1) Sustained change and the need for accurate and timely information
- 2) It advocates that the people themselves are "Solution Agents" for their problems
- 3) It cuts down the "Normal Professional Bias" and anti-poverty basis towards people
- 4) Reduces down the normal time consuming long methods of survey which consumes the much-needed resources and that gives results after a long time. The method is cost effective, accurate and timely.

The Purpose of PRA

- i) To use farmers criteria, choices and understand the local environment with clear local priorities.
- ii) To learn farmers' indigenous technologies
- iii) To achieve for triangulation, using different methods and involving various people to check and re-check the findings
- iv) To develop self-critical analysis and direct contact with local needs and communities.

Before discussing in detail, the techniques used in watershed, it would be appropriate to know some of the general guidelines when we conduct PRA in watersheds.

Operational Instructions on Village Interactions:

The following suggestions would be helpful to ensure a conducive environment for participatory learning. The suggestions contain actions required before, during and after the semi-structured interviews.

Before:

- Meet the villagers with an open and frank mind. Tell them who you are and why you have come here
- Build up personal rapport with villagers
- Identify villagers who are willing to share their experience
- Show full interest and enthusiasm
- Always begin the interview by relaxing the tension of the interviewee by asking general questions and setting the climate for discussion
- Select a suitable place for the interview. Sit down with the villagers on the same floor

During:

- Listen carefully
- Show empathy
- Be patient
- Intense and careful observation is most important
- Try to understand villager's way of reasoning
- Do not interrupt, suggest or prescribe

- Be polite, gentle and accommodative
- Try to adjust with villagers' convenience
- Do not lecture
- Respect villagers as human beings
- Head nodding during interview either in approval or in disapproval should be avoided as much as possible.
- Try to follow existing social customs of the village, e.g. remove shoes at the doorstep before entering the house, avoid smoking in front of the elders, wish the elderly persons with Namaskar (Folded hands). Do not insist too much upon the women members of the family who are reluctant to talk directly or sit in middle of a gathering. They generally participate in discussions through male members sitting in the foreground.
- Participate whole heartedly
- Accept villagers' offer of hospitality e.g. tea, snacks
- There is no point in getting impatient or becoming too much inquisitive when the villagers discuss amongst themselves. In their own local language which we may not understand easily. Other villagers who know our language would love to translate it for us.
- In villages of eastern India there is a practice of offering evening prayers with "Pradip" and blowing conch shell by the housewives of Hindu families near a "Tulsi" plant in the courtyard at dusk. Be respectful at that time and discussions may be stopped for a while, if the group work is progressing in the courtyard
- Lead towards sensitive and important issues using open ended questions
- Asking too many questions at a time should be avoided

- Allow time for reflection and organization of the answers to the group
- Take detail note of the answers and on the process of discussion and information generation
- Quick sketch of subject under study or innovation of the villagers may be drawn
- Individuals trying to dominate the discussion should be prevented carefully. Intervene politely, come back to the original discussion and provide opportunities to everyone.
- Do not prolong the group interview unnecessarily
- Revolve the discussions around the main issue without blocking spontaneity
- Change of topic should be smooth
- The intervening group should not generally have more than 4 or 5 people. The number of interviewers should not generally exceed the number of interviewees.
- Use kiplings seven servants: What, When, Where, Which, Who, Why, How to rephrase questions
- Try to find out different villagers for different tasks (interviews)
- During the course of interview the interviewer should not move out without intimating the group formally

After:

- At the end of the interview all the interviewees must be thanked individually by the members of intervening group for giving time and sharing their experiences.
- Sit down with all the members and record all the information collected and the process of information generations

B. PRA TECHNIQUES:

Participator Mapping / Modeling:

This is the construction of a map of village area using rangoli powders or chalk on the ground or a cement floor for understanding the village layout, main features such as housing, temples, stores and other infrastructure and other resources like forests, lands, watersheds etc.

Purposes :

1. To get an impression of the social and physical lay out of the village as perceived by villagers themselves
2. To understand globally the social structure of the village, who live where, which facilities are there, where they are located etc.
3. To get an impression of the natural resource environment of the village as perceived by the villagers.

Villagers generally feel comfortable and find it interesting to draw maps of their own village. Maps drawn in participation of many villagers, draws a good deal of their collective local knowledge which provides us an opportunity to explore the pattern of land use, the type of natural resources management by the villagers and the problems and prospects of the area. As an effective means of communication it reveals many minute details so far unobserved by many. The following suggestions may be useful while constructing the maps.

Before :

- Decide what sort of map will be drawn (social, resource map/watershed map etc.)
- If possible, collect the village and mouza maps, land use capability map etc. and other related informations.
- Explain and discuss the purpose briefly
- Try to involve a good number of villagers of different age groups
- Carry full size drawing sheets, coloured sketch pens, markers, etc. for maps on paper.
- For participatory mapping and modelling on the ground, select a suitable spacious place which can provide sufficient space to all the villagers, (e.g. varnandah of the village primary school, village clubs, Harmandir (a place of worship) etc. and can be protected and preserved for a couple of days. During monsoon the map may be drawn on cement floor or ground under a shed. For such maps to be drawn on the floor, coloured chalak, rangoli powders etc. may be brought from outside. However, the villagers use a wide range of locally available materials (e.g. mud, pebbles, tree-wings, paddy husk etc.)

During :

- Allow the villagers to draw the map in their own style and complete the work first
- Do not suggest or interrupt from outside. Facilitators may even leave the site for few hours after initiating the work of participatory mapping by the villagers. It has been found that the villagers feel free to work and put their best in absence of the outsiders.
- Sometimes more than 5-6 villagers work together at a time on a large map drawn on the ground.

- When the group of villagers finish their work of drawing the map on the ground, and move out, the next group who stands around and look with curiosity start interacting and sometimes suggests changes/or additions.
- Encourage them to put their views. Gradually many more villagers may join the interactive discussion and scores of informations flow. Sufficient time for such interaction among the villagers and outsiders may be allowed.
- After this when a good number of villagers have gathered around the map/model, discussions related to participatory plan developed by the villagers (earlier) may be initiated. Someone from the group may be requested to show and explain on the map the areas that will come under coverage of the special plan prepared by them (e.g. location of a check dam, command area of the micro irrigation plan, wasteland and phasewise plantation, etc.)
- Someone from the group may be requested to demarcate and show the special areas (as per their plan) on the map using different coloured powder, or lime or saw dust night in front of everybody. This helps in removing the barriers of communication amongst all and also helps to understand the present state of affair and how it will be, after implementation of the collective plan.
- At this stage, sometimes-controversial discussions start, especially when a village participatory plan do not benefit all groups of people. For example, the landless people apparently do not get the benefit from the implementation of an irrigation plan, or what benefit one gets from a pasture development plan when he / she does not have any cattle? Or who gets the benefit from wasteland plantation programme and how? Allow these discussions to continue since the participatory plan will be further triangulated.
- The social maps, drawn on paper may be used during wealth ranking. Sometimes villagers develop signs / indicators to denote the land holding, ponds, number of

cattle, possession of T.V., Motor Cycle, number of service holders etc. in each family. They put these signs against each on the social maps drawn on a sheet. Apart from distribution of households, cart etc. many other informations emerge out of social maps. These may be copted.

- When the question answer session around the ground map is in its peak, listen carefully and record quickly the intriguing question raised by some groups of peoples or women folks and the possible solutions suggested by the other group of villagers explaining the map. The group map can be copted on paper.

After :

- If possible take a couple of snaps (slide or photograph) of the map / model from a high point
- Formally thank the villagers for doing the work. Cheer the group with clap, who actively participated in making the map.

Situations where applicable:

Participatory maps are useful in identifying status of land holding and animals of different households, in identifying beneficiaries of various developmental programmes etc. Through participatory mapping other items like dryland / irrigated land, forest land, rivers and temple lands, tanks and nullahs and other water resources could be identified. The participatory mapping can also be used to prepare treatment plans for soil and water conservations, forestry and other treatments.

C. Transact Walk :

A transact walk is a kind of exploratory walk which is undertaken by the team along with the villagers to observe and send in minute details the differences of a particular area.

Purposes :

1. To get an idea about farming practices, cropping patterns, the physical layout (existing or planned) of irrigation facilities etc.
2. To know the agro-eco system of the village
3. To get the cross sectional view of the village

The following suggestions may be useful during a transact walk :

Before :

- Form a group (team) including the villagers who are willing to walk. It is always better to encourage elderly and experienced villagers and the village youths to join the transact walk.
- Explain briefly the purpose
- Select the area under study, village, canal, khal, catchment or a particular area. It is better to assign the responsibilities of 1. Asking questions, ii) recording informations, iii) drawing quick sketches and diagrams iv) collecting unknown leaves, herbs, fruits, grass etc. to different team members before beginning the walk e.g. some of us may concentrate on entry of trees and vegetations, some may concentrate on topography, soil, irrigation etc. while others on the problems and prospects of the area.

During:

- Observe everything in minute detail and listen carefully
- Ask questions by using what, when, how, where, why, which and who
- Record everything you see and listen and sketch and draw maps

- Collect species of new plants, weeds, fodder, grass or seeds which may have some usage. Ask about their usefulness. Some of the accompanying villagers may not know all.
- Do walk upto the last boundary of the area under study and insist all the group members to complete the walk even if it takes long time
- Encourage other villagers to join the walk if they are available on the way.
- Instead of following strictly a route map, do move to all sides and take time and observe. While walking along a khal/canal. Do walk away from the canal /route on both sides (left and right) at certain points and observe the environment
- Do not hurry, walk leisurely trying to look at things from a different perspective
- Instead of always walking along the mall, village paths walk may be followed to note the difference between the areas.

After :

- Carefully document all the informations collected by all the team members
- Prepare final diagrams and sketches from the rough sketches
- Meet other villagers and cross check and compare the informations. Record how things differ from one situation to other.
- Questions which could not be answered by the accompanying villagers of your team may be asked to other experienced persons of the village after return.

Situations where applicable : Transacts are used as pre-requisites for mapping, zoning of different areas into ecological zones, land use mapping, productivity zoning, locating indigenous technologies etc. Transacts are also used to locate areas in the village which need to be treated / developed

D. INDIGENOUS TECHNICAL KNOWLEDGE

Purposes :

1. To learn about the indigenous technologies available with the farmers
2. To test it out and identify the uses for building if further
3. To propagate further
4. To preserve ITK for future

Steps involved in finding ITKs:

- Rapport building
- Identify the experienced villagers and initiate discussion
- Best time to find out ITKs is during the Transect exercise
 - Show your interest and exchange experiences in order to get more information
 - Ask reasons behind following the practices, method of utilization, advantages and disadvantages over other things
- Ask the source of knowledge
- Collect samples if available
- Move from place to place for collection of information

Situations where applicable:

- **Agriculture and allied activities**
- Health

E. TIME LINE :

Time line refers to a calendar of historical events from as far back as one can remember upto the present, in the life of a person, community, village, area or institution depending on what we wish to construct. Such a calendar of historical events can form the basis of helping us trace trends through history and study the nature of change. An example of events could be – “The year when our road was built and a bus started coming”. Since these events are constructed from the memories of people, the best informants are the old people of the village. Giving dates to events may have to be done by asking questions such as “How old do you think you were when this happened?”

PURPOSE: To find out the sequence of historical events and changes that occurred in the village and their impact on the social and agro-ecological base

The following suggestions may be useful during this exercise

Before :

- Set the climate for a participatory discussion
- Encourage elderly and knowledgeable villagers to join the discussion as far as possible
- Carry sheets of papers and sketch pens

During :

- Initiate discussions and ask questions to the older informants at first. Ask them to recapitulate the major events and changes that took place over the years e.g. what were those which they had seen when they were young and do not see now. How big was the forest? How deep was the pond and so on. Ask some of them to write down the chronological order. Do not insist too much on specific year or date. Do not impose

- Record the informations

After :

- Compare the changes, identify the trends. (Whether rainfall, forest cover has decreased; population, cropped area, erosion has increased. If there is any corelation with the cropped area and cattle population)
- Thank all the villagers for sharing their experience

Situations where applicable :

The time line exercise can be applied to find out the background of a village or the evolution of specific activities or programmes such as health, nutrition, other social amenities, animal husbandry and agricultural programmes and other economic activities. The time line for agriculture, for example would indicate the occurrence of droughts, the adoption of new crops and varieties. HYV's and hybrids, fertilizer usage, years in which major crop failures took place etc. Similarly a time line on animal husbandry would indicate the trends in animal husbandry practices, shifts in the population of small and large animals, introduction of cross breeds, installation of veterinary infrastructure, major disease epidemics etc.

F. MATRIX RANKING :

Villagers' preferences and attitude towards a particular topic of interest is revealed to us by this technique. It helps us to understand farmers' priorities in crop varieties, vegetables, tree species, livestock categories, soil and water conservation techniques, irrigation methods etc. The reasons for their liking and disliking and the subtle differences in choice and priority among the villagers of different areas can also be understood which help us to prioritize and determine the strategy. Their criteria provide us an opportunity to think and look at things from a new angle and perspective.

PURPOSES:

1. To gain better understanding of farmers' decision making processes.
2. To identify criteria used to prioritize and select certain items or activities over others.

The following suggestions may be useful while making matrix.

Before :

- After the initial round of discussions and rapport building select a suitable place to sit down and conduct the exercise
- Include people from different age groups and classes
- Matrix ranking for different classes of people may be conducted (e.g. women's choice of vegetables for kitchen garden or tribal farmers preference for different categories of livestock etc.)

During :

- Initiate discussion on a particular topic (e.g. rice varieties or tree species) and start listing all the varieties and species as told by the villagers)
- Ask them about the advantages of each of these and what is good about them. Similarly list out the bad points and the negative criteria
- Allow the farmers to state all their criteria and ask till they do not have any more criteria to offer
- At points of controversies, take few others' opinion
- Carefully handle the gatekeepers (villagers who do not allow others to participate and dominate over the discussion)

- Provide full size paper sheets and coloured sketch pens to those in the group (villagers) who can write
- If there is no one in the group who can write, help them developing a matrix ranking table either by drawing sketches on the paper or by writing. For tree ranking, leaves of different trees may also be used to explain
- All species / varieties may be written in a line on the top and the villagers' criteria on the side of the paper. Similarly a large matrix may be constructed on the ground or floor
- If there are ten varieties written on the top, ask six criteria written along the side, divide the page by drawing nine clear and vertical lines and five horizontal lines to construct the matrix table
- Ask the villagers to rank the varieties / species of their choice for each criteria by marking 1 to 8. Write no.1 is given against the best and 8 for the worst. Villagers may use stones, seeds or match sticks to rank. Ask them to put the seeds or stones in each box against each criteria.
- When a similar rank is given to more than one species, an asterisk mark may be given
- At last ask the villagers, which variety / species they consider best among all considering every criteria.

After:

- Examine the overall ranking carefully and see which variety / item scores high in almost all the criteria
- Compare the results of participatory matrix ranking of one group / village with the result of another group

- Do not insist upon your criteria with those of the villagers' criteria
- Thank all the informants for sharing their views

Situations where applicable :

Matrix ranking can be used to study a range of subjects like soil types, crops and crop varieties, trees, fodder, types of cattle and breeds etc.

SEASONALITY:

Seasonality is an important and useful exercise to determine seasonal patterns in rural areas as related to rainfall, farming practices, employment etc. In seasonality an attempt is made to determine the seasonal calendar as understood and practiced by the villagers.

To get an insight into the seasonal variations in a number of parameters relevant in farmers' lives e.g. work, employment, income, availability of food, fuel, fodder, health, migration and transport facilities. The following suggestions may be useful while doing the exercise:

Before :

- Set the climate for a participatory discussion

Sit down with the informants (preferably from all the age groups)

Initiate discussion on a particular topic (rainfall, labour demand, market rate of vegetables etc.)

During

- Ask the informants to explain the seasonal changes and variations and draw on a paper or on the ground

- Help them develop scales (a bar diagram or other) to depict the seasonal variations and ask them to complete the graph
- They may write the names of twelve months on small sheets of paper and put them in order. Then bars using pieces of sticks or branches or columns using stones or seeds of different lengths may be developed to depict the rainfall, food stock etc.
- Allow the informants to change or correct the graphs if they want to do so after a second round of discussions
- Do not interfere much or dominate or impose your ideas
- Altogether separate graphs/bar diagrams may be prepared for different items (e.g. rainfall, incidence of diseases, agril. Labour demand etc.) or seasonal variations of a number of items may be depicted on one chart using different articles like seeds to show rainfall, sticks for food availability or leaves as indicator of availability of fodder etc. Gradually a graph emerges out with villagers' participation

After :

- Transfer the bar diagrams/graphs on large sheets of paper record other details
- Triangulate the findings in larger groups during village presentation
- Thank all villagers for participating in the exercise

Situations where applicable:

The seasonality exercise has a wide range of applications viz. To indicate rainfall, agricultural operations, employment, credit and fodder availability, grazing patterns, milk yields, breeding periods, animal and human health diseases etc.

References:

1. Biogas Co-operative – Togetherness is the key, Women, Energy and Development, Urja Bharati June 2001, Ministry of Non-Conventional Energy Sources, New Delhi
2. Grover, Indu (2003), Unit-I Gender Theory and Development: Post Graduate Diploma on Gender and Development through Distance Education, HEL Project, Department of HSEE, CCS HAU, Hisar, India
3. Gender and Food Security, Published by FAO.
4. Guidelines for Gender analysis of Public Expenditure, Ministry of Women and Child Development, Govt. of India.
5. Gender Budgeting Handbook for Govt. of India, Ministries and Departments (2007), Ministry of Women and Child Development, Govt. of India.
6. UNESCO's Gender Mainstreaming Implementation Framework (GMIF), 2002-07, the section for Women and Gender Equality of the Bureau of Strategic Planning, Paris, France.