
Rural Women and Natural Resource Management – A Vigorous Symbiosis

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Abstract

That what distinguishes man from a non-man is his possession of unique culture which is a result of communal living and it is this concept of culture which has retained its significance in both Sociology, Anthropology. In fact, any form of social existence is embedded in a form of culture. Traditional knowledge encompassing practices, skills, beliefs, forming the core of a community's social existence and cultural identity, often reflecting their history, values and world view, has also been a key to the survival of human life, be it in industry, agriculture, forestry, health or even in the field of science. The continuous transmission of this type of knowledge from one generation to the next, has not only ensured continuous livelihood, but also ecological sustainability. In the context of the present paper, farming is highly interdependent with forestry and animal husbandry, and women have been the backbone to this totally integrated system. They have a high domestic workload but yet have successfully manned, preserved, transformed and carried on the traditional knowledge from generation to generation. However, sticking to the norm of the complex culture, it has been customary that, women's role as the preservers and carriers of this traditional knowledge on forestry has not been extensively recognised so far, in the milieu of the present form of gendered society. The present paper is thus aimed to explore the role of women as a preserver and transmitter of traditional knowledge in relation to natural resource management of forest and its manifold of assets.

Keywords: culture, gender, forest resource utilization, natural resources, sustainable livelihood, traditional knowledge

Introduction

Culture as defined by Edward B. Taylor (Primitive Culture, 1871) means a complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society and this inclusive use of the term forms the basis of

traditional knowledge, which has been a key to the survival of human life, be it in the sectors of industry, agriculture, forestry health or even science.

Natural resources are the main source for people's livelihoods on which all human activity depends. More than 1.6 billion people depend to varying degrees on forests for their livelihood, out of this, 60 million people are almost wholly dependent on forests and 350 million people live within or adjacent to dense forests for sustenance and income generation^[1].

Women living close to the forests, have considerable knowledge of the characteristics, distribution and site requirements of indigenous trees, shrubs and herbs. Generation of income by women through the use of natural resources is vital in the success and sustainability of development. Nevertheless, when we talk about managing and preserving traditional knowledge system, the role played by men becomes prominent, though it must be remembered that the pivotal role played by the women cannot be neglected as well. Subsistence farming still remains people's main source of livelihood, but it cannot be seen in isolation. In fact, while considering the role of labour as contributed by the women in the society, the concept of gender which is a cultural bag, determines that men and women are socially and culturally different. These issues need to be addressed and safeguarded.

Ensuring the protection of women's knowledge on the issue of utilisation and conservation of natural resources is of particular concern since colonial structures tend to reinforce the role of men and their activities. Colonization has undermined the role of women who once enjoyed a prominent and respected place in their communities as leaders and decision makers, guardians of the language, customs, culture and traditions of their people. Women still have a dynamic role in facilitating the healing of families and communities as well as in nation building. Indigenous women's inequality in the area of land rights and resource exploitation is the result of the implementation of societal policies that promote and concede to male leadership. This sort of a perception extends its impact into large-scale resource development which tends to disregard the socio-economic and cultural impacts of its development. For women, the potential loss of traditional activities and knowledge gained thereof, must be assessed deliberately in relation to the environmental impact studies.

Gender roles have put women in direct contact with natural resources such as forests, water, land and thus the protection of these resources in rural areas without the association and training of women is hardly thinkable. Women need to be cultured on the values, management and sustainability of natural resources as substitute sources of living. But to have success, they must

not only be appreciated as invisible land managers, but must benefit from relevant incentives in their cultural roles. Most rural women are comparatively poor, less educated and also do not hold a monthly paying job and therefore are commonly referred to as 'housewives'. However nowhere is their impact and activities more significant as their indigenous knowledge of, and management of natural resources such as land, water, forests and wildlife is concerned. They are crucial because their traditional gender roles bring them in direct contact with these natural resources, and their survival and that of their families depend directly in exploiting and harnessing supplies from these natural resources.

Women's knowledge of forest products represents a vast database of species which even the scientists are unable to catalogue in totality.

Tibal women living in the rural areas of India, know about the medicinal properties and the uses for some three hundred forest species. They serve as the chief custodians and operators of forests and the products procured there from. They are the main gatherers of fodder and fuel wood, and they look for fruits and nuts to provide food for their families. They even use the bark, roots and herbs for medicines. Women's gathering activities are very important to household income generation and providing of nutrition. The products they collect make an important accumulation to the family diet. Much of what they gather is processed or marketed, bringing in additional income for the family. During periods of famine and shortage, women gather buffer foods, which would not be consumed under normal circumstances but can be crucial to family's survival during a crisis. Beyond the immediate benefits of food and medicinal plants that are consumed by the family or sold in the market, easy access to forest products, particularly fuel wood, gives women time for other activities. These women live mainly in forests, hills and plateau areas, which are rich in natural capitals. In every society, including tribal societies, women play critical roles in rural areas as they perform the bulk of household subsistence work and carry major household responsibilities for farming, food provision, healthcare and acquisition and stewardship of natural resources. In brief, women make profound and persistent effect on the well-being of their families, communities and local ecosystems.

Traditional knowledge that is cherished, treasured and valued by women, needs special attention for a number of reasons. Aboriginal women, as the primary harvesters of medicinal plants, seed stocks; are keepers of the knowledge about significant spheres of biodiversity in their own right, and as such they are the only ones able to identify the environmental indicators

of ecological health in those spheres. In the 21st century, the role of women in general and tribal in particular is under mounting scrutiny. But not only the ethnic and tribal race of women but even the women born and brought up in non-tribal stadium has a significant contribution to make in this regard and forms an integral part of the social fabric. Non-tribal women play a noteworthy role in natural resource management (NRM), often handling resources like water, forests, and agricultural lands to meet domiciliary needs. Their engrossment extends to various deeds, including planting, weeding, seed selection, storage, and post-harvest operations. Women's involvement in agriculture and resource management is essential for ensuring food security for their families and communities. They often favour and get involved in making gardens adjacent to their kitchens, undertake organic farming and multiple cropping, contributing to sustainable agricultural practices. In many regions, these women are responsible for grazing livestock and processing dairy products. They may also be involved in fisheries, particularly in pre- and post-fishing activities as well as in marketing.

Women's access to land and resources can authorize them to participate more actively in decision-making related to NRM. Non-tribal women are expected to get an easy access to educational facilities, which in turn leads to a possession of valuable traditional knowledge about resource management practices, which can be transmitted to younger generations in the long run. Increasing women's access to resources, education, and decision-making power can enhance their contribution to management of natural resources. Combining women's traditional knowledge with modern technologies can lead to further effective and sustainable NRM practices.

Half of the world's population is made of women, yet they still do not have equal access to land, credit, technology, education, employment and political power. In India women have a paradoxical status, while she is regarded as Goddess in family traditions, she also has to bear the enormous burden thrust upon her by the society. There are bound to be conflicts between women and men in a society bound by social set up of conventional nature. Indian society is loosely structured and it is women, who binds and seals the gap and sets a platform for gradual social change.

The term 'gender' refers to social arrangements in relation to both women and men. It highlights the fact that women and men may be biologically different, but other differences between them are due to socially constructed beliefs and practices.

The gender perspective has shaken the very foundations of economics since the women, who are mostly in unpaid work, found that their work is neither treated as economic activity nor valued in the national income of the country. Whereas, as a matter of fact, in household economy, in the traditional rural Indian setup, it is the women who are the frontrunners in stabilising the household and contribute both in the farm and off-farm labour. While understanding the contribution of women, it is important to note that it is very essential to endow the women for getting the value of their labour.

Indeed, the women have a deep relationship with all the components of ecosystem. The ecosystem can be well maintained only when women along with men will be recognized as the best manager of the same. The relationship of land, water, forest, animal with each other can be understood and well interpreted by women in a more holistic manner, because in a way, women represent the hallmark of nature and motherhood. Therefore, they should be given ample opportunity to participate in the village ecosystem planning. Women have vital role in conservation and management of sustainable eco-system in the long run.

Since age-old times, women are traditionally involved in protecting and conserving the natural resources in the neighbouring zones. With their amazing skills and control over traditional knowledge, women have exhibited ways of how land, water, forest and other natural resources can be used and managed [2].

They have formulated their own system and ways to sustain and manage the resources, which are the basis of survival for their families and communities. Through their practical experiences and supervisory skills, they have acquired enormous knowledge of the various types of plants. They know the variety of the grass, herbs, shrubs, trees which are best for them and should be planted to maintain a balanced eco-system and wellbeing of their families and neighbourhood. They always prefer a mixed forest, which can meet their demands of fuel, fodder, fruits and food as well as maintain the bio-diversity of the surviving area. They are perfect in making an optimum use and conservation of natural resources.

The linkage between women, natural resource and the domestic economics of rural households are clear and categorized into three patterns.

1. First natural resources are pivotal to the livelihood in India. Many studies have documented that rural household are dependent on free biomass and common property resources.

2. Second, women are the primary gatherer and managers of biomass goods in rural households. They also play an important role in the processing, storing, utilization and marketing of biomass goods.

3. The role and commitment of women are pivotal not only to the management of natural resources but also to the organization of domestic economy. Studies have shown that women work for more hours and accumulate more of their income as contribution to household budget. They effectively manage the day-to-day consumption and the requirement for money as well [3].

Forestry Sector – The Role of Women

Throughout the world, rural women, more prominently the tribal ones on account of their proximity and habitation in areas close to the jungles, are the major caretakers and users of forests. Each day they walk long distance to gather fuel, wood and fodder. They collect fruits, nuts, edible plants, leaves and small creatures for food. They gather tree bark, herbs and fruits for medicines. They also use tree fibres and bamboos to make baskets. Forests thus provide many opportunities for collection and processing of non-timber forest products and deriving small cash income. Women and girls gather water from forested watershed to drink, clean and grow crops, proving that they have been the forerunners in championing the cause of forestry development and protection.

The case of "*Chipko Movement*" in Garhwal hills with Gaura Devi and her women colleagues hugging the trees to prevent them from being cut and thus preventing floods and landslides, is a well-known example as to how the wisdom of local women can bring changes in the local administrative functioning. There are numerous examples of how women can turn sustainable forest management from rhetorics to reality and thus in forestry project design, women are increasingly being involved.

Women's search of career and job opportunities in the forestry profession and related decision-making arena are important aspects of finding lasting solution to India's forest degradation problems. The non-government organisations and community development agencies have a large segment of women force which is empathetic to women's needs and has done a commendable contribution in running women-oriented programmes related to the forestry sectors.

Problems of Male Dominated Society in Women's Participation

It is our culture that emphasises gender differentiation from early socialisation. Ironically it is the culture which turns around and attributes certain traits to women and declares them to be unsuitable for several male-dominated professions. Traditionally, forestry as a profession had always been a men's terrain. Women have often been sidelined on policy and decision-making about forests. The same is also true in other spheres of rural development linked issues.

In case of migration where men leave villages in search of wage earning outside, the entire load comes on the women. The migration brings temporary social changes in the living structure of the village setup and they have to even assume the role of the head of the house. Thus it is a dichotomy that, at one end she is considered unsuitable for many professions and at the other end she has to shoulder extra responsibility without being recognised for it.

In certain states of Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Uttaranchal, Bihar, Gujarat, Rajasthan and Orissa, to name a few, male supremacy is an obstacle which suppresses the talent of the women folk which can be otherwise utilised for the benefit and development of the society [4].

It is due to aforesaid reasons that gender sensitisation has been felt as a sociological need to enable women to come forward and take the cause of environmental upgradation and forestry development.

Women have strong intuition and inner strength and despite the limitations imposed by the social setup in the rural India, a little thrust by way of interaction, confidence building has resulted in gender sensitisation to the extent that they have come forward and brought revolutionary changes in the overall structure of the society and broken the male bastions.

Joint Forest Management and Gender Sensitisation

Co-governance of forests, or sharing forest management, has been a wide-spread conservation and development (C & D) interposition in India for over two decades. The practice began in the 1990s as Joint Forest Management (JFM), where local communities – organised into Forest Protection Committees (FPCs) – worked in collaboration with various state forest departments [5]. Later on, this involvement took shape of Community Forest Management (CFM), where communities manned their forests largely independent of the forest departments [6].

Joint Forest Management (JFM) started as an innovative programme in the nineties as a follow up of the National Forest Policy, 1988. JFM is a national programme now covering over 11.62

million hectares of forestland through 44,886 forest protection committees. In West Bengal there is joint membership from each household of the village in forest protection committee. When JFM was started as a programme, some innovative experiments were started in the field in the states of West Bengal, Madhya Pradesh, Orissa, Maharashtra and Andhra Pradesh. The initial experiments of involving women in JFM programme developed lot of problems within the community but gradually when the inertia was generated, a good number of women came forward and provided lot of valuable input not only in forest resource planning, formulation of macro plan but also in generation of community fund. Such success stories gradually spread and in the last decade, women have taken lead in various forest activities.

JFM has affected change in the traditional system of management of forests. The non forestry issues, especially village development, form an important component of the JFM programme. The livelihood and the social sector development are in fact the basis of the JFM programme. The major activities in this area can be divided into three parts-agriculture development, rural non-farm activities and development of social infrastructure. A number of schemes like sericulture, mushroom cultivation, improved honey collection, construction of biogas plants, hand pumps repair, poultry farming, indigenous medicines etc. have been floated besides the Non-Timber Forest Products (NTFP) trade, where women are active participants and brought a revolutionary change not only in the family income but has also brought a sea change in the village economy.

Off-farm income generation activity provides an avenue to minimise risk and increase economic security of these women. The activity decreases dependence on forests and leads to productive utilisation of time in agriculturally slack periods. It also provides an alternative source of employment, where women work as home-based producer groups, which in turn serves as an avenue to augment their income and improve quality of their lives. Now women have taken lead role not only in above activities but have also gone ahead in bringing social revolution in curtailing the evils of men undertaking malpractices such as drinking and gambling. All this has been possible due to women being sensitised with the problems facing the village society and how degradation of environment has crept in the past few decades. For this the forest department has played the role of facilitator and some NGOs have also worked as catalysts.

Contribution of Women in NTFP Trade

Non-Timber Forest Products (NTFPs) are organically and biologically created non-wood products derived from forests that create a vigorous source of livelihood. In India, NTFPs generate about US\$35 million annually in income and employ 55% of the forestry labour force (Chauhan *et al.*, 2008; Shiva & Verma, 2002). From 2019 to 2020, about 40% of the total forest revenue in India was NTFP based^[7].

In these overall dynamics of social change, gender roles and gender relations in different communities are also and needs to be changing. Besides gathering a diverse range of NTFPs, women participate as wage labour in forestry works. Women's employment in forest-based enterprises is estimated to be approximately 571,533 million days annually of which 90% in the small-scale enterprises using NTFPs as raw materials, is seen^[8].

Primarily, women collect two of the main cash earners among NTFPs-Sal (*Shorea robusta*) seeds and Kendu (*Diospyros melanoxylon*) leaves. It is estimated that more than 350,000 tons of Kendu leaves are harvested annually by 600,000 women and children^[9].

Barriers Tet to be Crossed

Though the past decade has seen a sea change in the functioning of the women and their social status, still it's a long way to go. The major factor impeding the functioning of the women, is in their low literacy level and lack of sense of awareness. The pace of empowerment has been uneven between different states and regions in the country. The rapid population growth has caused the serious concern about the outlook for economic growth and environment protection. Another major hurdle is lack of capacity building approach related to activities whether in forestry sector or other rural sectors related to processing of trade and because of non-availability of proper training, much of the efforts put in by women are either lost, duplicated or they are not able to get remuneration to which they are entitled for despite, the enormous amount of labour they discharge.

Conclusion

A holistic approach of the entire scenario in today's context shows that, a lot of improvement has come in the overall status of women in rural India. The credit goes to government functionaries, NGOs and self-initiated women group in highlighting the contribution of women in forestry sector and also in sensitising them to come forward in an organised manner.

The future policy directives towards the forestry sector must focus on the issues of recruiting and training women as frontline foresters and better marketers. Extension and research information at local levels must also be disseminated. It has to be well understood by the planners that women's empowerment positively influences the lives of not only women themselves but also of men and in course of time, the children. Joint Forest Management should be more explicit regarding the problems and priorities of women as forest users. The capacity building should be such that, they are able to evaluate the success and failures of their work. When such a state is reached, that will be the real empowerment and highest level of sensitisation, for which we have to strive. There cannot be true sustainable forest management today and tomorrow unless women's voice is heard and addressed. Infact evidences of the street plays and protests organized by the women and their consistent efforts for creating awareness about water management, sufficient safe drinking water was available in seven villages during the summer months of 1997. Women of these villages started programmes for social forestry and process of rain water harvesting to protect the environment^[10].

Culture with which we initiated this venture, is a dynamic term and elements of culture changes from time to time. Indeed, societies have abandoned many of the traditional belief systems which are not consistent with scientific evidences. Likewise, the position of women is getting towards the betterment, but without education, awareness, economic independence; the integration of the rural women into the mainstream is going to remain a distant dream. Therefore, in order to promote involvement of rural women, whether tribal or non-tribal, at planning and execution stages, quota of women's representative in users' committee be made essential so that they get opportunities to take part in decision making process and may feel concerned with various activities regarding the conservation of natural resources. Further, it is recommended that skill-oriented training sessions on women conservation aspect should be increasingly organised, as well as they should be convinced personally about benefits of conservation of these resources in their daily life.

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