



Choice and Voice of Women in Agroforestry Management of Rural Odisha: An Exploration

Dr. Aliva Mohanty,

Associate Professor,

P.G. Department of Gender Studies,

Rama Devi Women's University,

Bhubaneswar

Abstract

Agroforestry systems are not a new practise; however, the use of the term 'agroforestry' is. It is a land-use system that combines growing or raising crops (and/or livestock) with woody plants, i.e. agriculture + animal husbandry + forestry. This is also an important strategy today to alleviate poverty, facilitate food security, improve flexibility, preserve the ecosystem, and provide economic opportunities, among other things. Traditionally, women have been the key stakeholders in both the agricultural and forestry elements of agroforestry production systems. However, men continue to dominate farm decision-making, even in areas where women are the longest providers of farm labor. Women become agroforestry protagonists, improving their families' living conditions and increasing their participation in production, marketing, and advocacy. Recognizing the significance of agroforestry, the present study glance at the efficacious involvement of women in agroforestry management in order to maintain a sustainable livelihood for rural women. The study is that, despite women's enormous contribution to their livelihoods, food production, and national economies, this has not resulted in improved availability of resources or decision-making powers. The study concentrates on the villages of Odisha's Nuapada district. A slew of policies has been implemented to encourage women's participation in agroforestry management and to create a conducive environment for farming women in Odisha, but the results have been mixed.

Key Words: Agroforestry, Ecosystem, Protagonist, Stakeholders, Flexibility

Introduction

The involvement of women in agroforestry is not at all a new concept. But the age-old practice of marginalization of women's contribution is a frequent phenomenon in any cultural, social, economic, and institutional field. Female farmers have always played a crucial role in agroforestry, particularly at the foundation of plant creation and management, even though there is almost no documentary record of this phenomenon, particularly in Odisha from a dynamic rural milieu. However, the present review of the literature tries to review agroforestry from a gender perspective. The entire thought of utilizing the idea of gender is not just focusing on women yet rather purposes to exude with systems that challenge gender imbalance, subsequently

guaranteeing that both men and women can settle on the choice, access resources impartially, stand secure on situations and advantage from development drives, for example, agroforestry. The whole idea of using the concept of gender is concentrating on women and strategies that challenge gender imbalance, thus ensuring that both men and women can make the decision, access resources equitably, hold positions, and benefit from development initiatives such as agroforestry. So also, the newly implemented Sustainable Development Goals (United Nations 2015: Goal 5) promote women's role as a development effort and gender equality in policy advancement, which are now believed to be critical for the realistic turn of sustainable development.

According to studies, women's labour and decision-making are both critical to agricultural production and development. Women are the primary consumers of forestry products such as fuelwood, wild fodder, and food, whereas men are more interested in commercial forestry products. Women have a better understanding of what is required, which trees are suitable and which are not, and who will use the final products. Women also use products to make medicines, baskets, and other items. In the case of minor forest products, women are often the only ones tangled in agroforestry chores and decisions. It has been implicit that women are passive members of communities where public influence and public actions are confined to men. Women, despite their long working hours, have a strong interest in defending and restoring the forest's ecosystem, according to research from around the world. The 'Chipko Andolan' in India is a classic example of women protesting forest destruction. Protests against deforestation are not the only means of retaliation. Women are also spearheading efforts to reverse the devastation by planting trees. Several eco-development movements are being organized around the world, with the goal of restoring ecological balance through tree planting. Although women's reforestation efforts will not reverse the trend of diminishing resources, they can help to address deeper injustices and inequalities.

In the context of agroforestry, gender is an important dimension to look at. Globally, nearly half of the human population is directly dependent on natural resources for its livelihood. Most indigenous and rural women depend directly on agroforestry to fulfil their daily subsistence needs. The concept of gender as used in this project does not refer to women, but rather to a societal unifying force that is used as a process and practise of putting into consideration the differences between men and women. Gender inequality has always been a deeply ingrained and widespread systematic oppression. Gaps in gender in life chances, opportunities, resources and incentives between women, men, girls and boys continue to exist worldwide. Being a man or woman is often a decisive consideration in influencing the levels of risk they face from environmental stress, extreme and ambiguous weather, and climate variability and economy in societies where people are discriminated against based on gender, ethnicity, class, or caste. The resources and options available to people to respond to these shocks and changes are also heavily influenced by gender norms and expectations that govern their lives. These expectations and norms can be remarkably prejudiced and restricting.

Further, gender inequality is a major contributor to poverty. Climate change, in turn, is exacerbating poverty. This implies that the chances for a better life for many poor women and girls are jeopardised by a double injustice and climate change and gender inequality are two issues that must be addressed. In such a scenario, the project tries to look into the women management in agroforestry for a sustainable maintaining livelihood and environment.

The present study, titled "Agro-Forestry Management for Sustainable Livelihood and Rural Women Empowerment," with a focus on Odisha's Nuapada district, aims to shed light on the role of middle-aged and elderly women engaged in agroforestry activities. It aims to increase women's

involvement in and knowledge of forest biodiversity, as well as participatory forestry management. The study also looks at agroforestry policy from a gender perspective. A gender analysis of women's status in agroforestry activities is carried out to determine the extent and depth of involvement in agroforestry activities, as well as their contribution. Finally, a socioeconomic analysis was performed on facets that have impacted sustainable livelihood practices and women's empowerment. The study is a micro study in the district of Nuapada district. Quantitative, qualitative and participatory methods have been applied to elicit the real information from the respondents.

It is focused on the women's access to important connectivity like television, tv, radio, or mobile, land ownership, decision making on forest-related activities leadership position of the Nuapada district.

Objective of the Study:

- To study the contribution of women to agroforestry production, household income and food security.
- To assess the choice, voice and control leading to empowerment of women.

Methodology Adopted:

The study is taken up in Nuapada district of Odisha. In Nuapada district two blocks such as Raj Khariar Road block and Nuapada Block were selected where women are involved in agroforestry activities and mainly residing nearby forest area. In the present study 306 middle aged (45 years to 60 Above) and elderly women (above 60 year) respondent were taken into account, those who are involved in the different types of agroforestry activities in Nuapada District. The study has purposively chosen the age criteria to understand the role and sustainable engagement of women in management of agroforestry for a long period of time.

Access to important connectivity

Connectivity, according to Alstadt, B., Weisbrod, G., and Cutler, D. (2012), is also significant as a drive to economic progress. Access to markets and connectivity to the economy at large enable local resources to be effectively exploited in keeping with the greater marketplace's demand for local products. It was designed to give a forum for women and men to learn about the world outside of their village, as well as to raise awareness about numerous concerns that they were unaware of. It provides a necessary component of any progressive and empowering venture. Thus, an attempt was made to investigate the access of women's connectivity to newspapers, television, radio, or mobile.

TABLE NO- 1.1

DISTRIBUTION OF THE RESPONDENT BASED ON THE ACCESS TO CONNECTIVITY

Access to connectivity	Frequency	Percentage
Newspaper	27	8.8
Television	10	3.3
Radio	25	8.2
Mobile	101	33.0
Not mentioned	143	46.7
Total	306	100

According to Table No. 1.1, the majority of respondents (33.0 percent) have access to a mobile phone, but they have also claimed that the phone is generally held by their spouse and shared by the entire family. The respondent also stated that they are familiar with the fundamentals of mobile phone use and have no understanding of technology and internet usage. 8.8 percent of the respondent had access to newspapers and 8.2 percent had access to radio. In response to the question about connectedness to the outside world and any additional information necessary, the respondent stated that they receive updates from the village panchayat, village leader, SHG groups, or any other organization functioning in their local periphery. From the study, it can be noted that a majority of the i.e. 46 percent respondent had not given a reply. Still, access to connectivity through various sources is uncertain, and most of them had a moderate level of information seeking and consuming behavioral aspects to their socioeconomic backwardness, poverty, and illiteracy. It is felt in the study that digital integration should be viewed as a means of ensuring that individuals and the socially disadvantaged have access to different modes of technological connectivity and the competence to use them, allowing them to participate in and advantage from a progressively electronic knowledge-based economy and for a progressive form of society.

1.2 Land ownership:

In the framework of gender equity, succession law has traditionally been the focal point where gender prejudice continues, and disparities in succession law proliferate for land rights. Bias against women's land ownership may be a severe constraint since it deprives rural women of opportunities and capabilities to participate in agricultural production, reducing their incomes and restricting their involvement or impact in family activities or choices. Thus, in the study an attempt was made to know the land ownership pattern among the women respondent in the Nuapada district, which is reflected in Table no-1.2

TABLE NO- 1.2

DISTRIBUTION OF THE RESPONDENT ON THE BASIS OF LAND OWNERSHIP

Land ownership		
Own	36	11.8
Taken lease	4	1.3
Husband	188	61.5
Father	39	12.7
No land	39	12.7
Total	306	100

From Table no- 1.2, it was found that 61.5 percent of respondents mentioned that their husband inherits the land, and 12.7 percent said their father-in-law is the landowner. And 12.7 percent mentioned that either woman or their spouses don't own any lands. Even though few women hold land ownership, but still the majority of male members owe the ownership of land rights which shows the legacy of patriarchal land ownership still continues. And regardless of how smaller or bigger the land is, 11.8 percent of women have land ownership in the land records in this community, and 1.3 percent have taken land in the lease for cultivation, which was found in the study. It shows a slow breakdown

in the patriarchal tradition of ownership of land, which the husband only inherits. And this ownership of land is possible under The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (or Forest Rights Act). However, women in India usually hold land via inheritance. There is a vacuum between nominal ownership and absolute management authority over the land since succession is regulated by traditions and customary rules, slanted towards them. These few women who owe land ownership are also true in Odisha, as Odisha ranks among the top three states in terms of female land ownership. And NFHS data also support it as 63% of women, and 85% of men in the state own a house alone or jointly, compared to the national average of 37% for women and 65% for men. The NFHS also reports that 47% of women, and 69% of men, in Odisha own land alone or jointly. The national average stands at 28% for women and 49% for men. However, it is also not a denial that, despite women owning land, women are also found in the most significant percentages as agricultural laborers, either in their field or in other fields. According to the 2011 census, 69.33% of women work as laborers in the Nuapada area. Furthermore, the current survey confirms that 86.6 percent of respondents work as agricultural laborers. Thus, even though they have land ownership in their name, the truth is that ownership has a distinct background with diverse meanings.

1.3 Decision making:

Women's decision-making power should not be undervalued, whether within or outside the household, since it is essential to women's empowerment because their voices are frequently not adequately acknowledged. Women's active engagement is required for actual development to occur. So, the current study also investigated tribal women's decision-making mechanisms within and beyond the household. The women's decision-making portrays a patriarchal way of domination in the economic activities; even women contribute financially to the family.

TABLE NO- 1.3

DISTRIBUTION OF THE RESPONDENT ON THE BASIS OF DECISION MAKING OF WOMEN

Decision making in	Me	My spouse	Both me and my spouse	Not mentioned
Agricultural practices/ collection of nwfps	27 (8.8%)	103 (33.6%)	176 (57.5%)	-
Who decide on income spending	8 (2.6%)	92 (30.1%)	199 (65.0%)	7 (2.3%)
Who decides to take out a loan	-	186 (60.7%)	114 (37.3%)	6 (2.0%)
Goes to the market in your family for household items	-	155 (50.7%)	131 (42.8%)	20 (6.5%)
Major decision about NWFPS or agricultural activities	6 (1.9%)	144 (47.1%)	130 (42.5%)	27 (8.8%)
Goes out for selling the agricultural produce or NWFPS in the market	7 (2.3%)	43.1	44.4	10.1

Participate in the decision to buy, sell or transfer assets	2 (.7%)	118 (38.6%)	118 (38.6%)	28 (9.2%)
Decision within household	1 (.3%)	133 (43.5%)	144 (47.1%)	28 (9.2%)
Who manages monthly budget	1 (.3%)	154 (50.3%)	137 (44.8%)	14 (4.6%)
Decision about saving	7 (2.3%)	157 (51.3%)	91 (29.7%)	51 (16.7%)

From Table No- 1.3, it is evident that 65.0 percent agree that respondents spend money together, and 57.5 percent of respondents mentioned that they choose livelihood options, i.e. agriculture activities or other activities. 47.1 percent of household decisions are made jointly by both husband and wife. Thus, it indicates the positive effect of active engagement of women and assimilation of women's viewpoints in spending money together with their male partners. But in case of a decision like saving of money (51.3%), taking the loan (60.7%), going to market for essential purposing household item purchase (50.7%), the decision about agroforestry activities (47.1%), decision to buy, sell or transfer assets (38.6%) and to manage the monthly budget (50.3%) all are decided by the male member (spouse). All such results show that the agricultural decision-making process exhibits the same common trends mentioned earlier in research. And the same effect is noted by Chayal, K. et al. (2013) and Pandey et al. (2011). Males play a more significant role in farm operations, while farm women's constructive participation in farm decision making is insignificant. And mapping gender role within the household is a complex phenomenon as gender roles are socially constructed, mainly manifest gender inequalities that are maintained for decades and might change over time (Agrawala, 1997).

1.3 Access To And Control Over Resources Concerning Forest Or Agricultural Activities:

Rural women have had a more challenging time accessing social capital, such as credit, land, and extension services, due to their patriarchal work experiences. They are also less likely to have access to training and advisory services. Despite these challenges, women have unquestionably played a meaningful role in the growth of their nations. In the study, information was also collected about the access to and control over resources concerning forest and agricultural activities, which is shown in Table No-1.3.

TABLE NO- 1.3

DISTRIBUTION OF THE RESPONDENT ON THE BASIS OF ACCESS TO, AND CONTROL OVER RESOURCES CONCERNING FOREST OR AGRICULTURAL ACTIVITIES

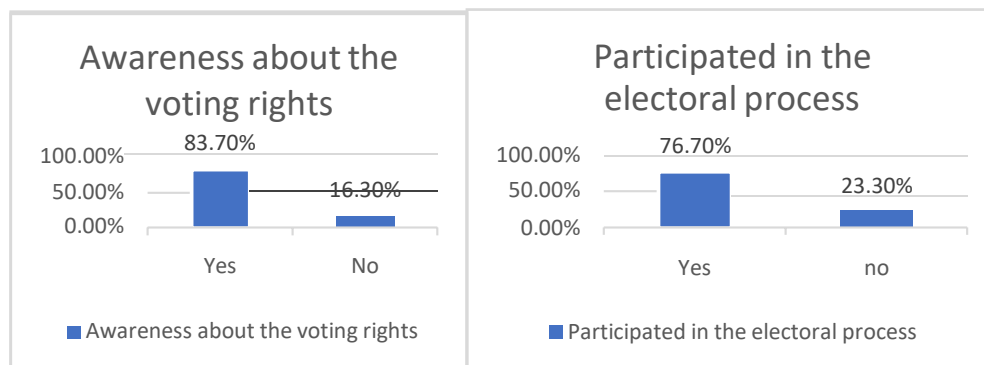
Access To, And Control Over Resources Concerning Forest Or Agricultural Activities	Yes	No
Women's Ownership Of land Assets	36 (11.8%)	270 (88.2%)
Access To Bank Account	200 (65.4%)	106 (34.6%)
Access to Extension services	69 (22.5%)	237 (77.5%)
Access to Market	264 (86.3%)	42 (13.7%)

Access to Household Belonging	221 (72.2%)	84 (27.5%)
Productive Resources Such as Land, Water And Finance	25 (8.1%)	281 (91.8%)
Ownership Of Farm Equipment	118 (38.6%)	1881.4%)

From table no-1.3, it is evident that still women respondents of Nuapada district in the study, face significant challenges faced by respondents are access to land ownership (88.2%), extension services (77.5%), Productive Resources Such As Land, Water, And Finance (91.8%), and ownership of farm equipment (61.4%). The participation of women in agricultural and agroforestry systems is abundant, according to the present study and studies conducted by other academic groups throughout the world. However, the privilege and access to resources for women still remain inaccessible. According to the study, it was an extremely unconscionable scenario to note the access to and control over productive resources in an agroforestry farming system where gender still affects the distribution of labor, resources, wealth, work, decision-making, as well as the enjoyment of rights and entitlements within the family and in public life based on the hegemonic social structure.

1.4 Voting rights:

An attempt was made in the study to learn about women's understanding of voting rights, since women's involvement in the political process enhances women's direct engagement in public decision-making and is a method of guaranteeing better responsibility to women. The graph no-7.5 reflect on awareness about the voting rights of women and their participation in electoral process in the below.



It is essential for the participation of women in decision-making, as it is critical for incorporating women's issues into government. Graph no- reflects on whether tribal women know about their voting rights and cast votes. 83.7 percent of tribal women said they were aware of their voting rights, and 76.7 percent said they have participated in their community's electoral process. It is a progressive development in which tribal women have exhibited their involvement in the election system to be a part of the law- making process critical for their communities and is essential to their advancement and the underpinning of gender-equal civilization.

Conclusion

The project discovered that women are involved in agroforestry activities such as agriculture, livestock, poultry, NTFP goods, local fruits, house gardening, timber collection, coconut farming, and other non-agricultural activities. The women in the study work as wage labourers on other farms. Wages are also lower than male counterparts. The farming system is seasonal, so women and their families migrate during the off-season. Men and women work equally hard in all labor-intensive jobs in agroforestry system. Along with the above responsibilities, women are also responsible for caregiving in the domestic periphery.

Freedom of choice, voice, and control aided women's empowerment and decision-making. Despite changes in inheritance laws, the small number of women who own land shows that significant gender disparities in land ownership persist in India. The low proportion of women who owned land, on the other hand, indicated a gradual breakdown of the patriarchal institution, which is a positive sign. When it comes to decision-making, gender roles within the household are complicated. Nonetheless, the results show that the men's and women's perspectives on spending money were taken into account. Despite actively managing their roles and responsibilities for the agro farming process, women have no or little financial authority when purchasing agro- inputs or selling agro goods. As a result of the fine line between participating in decision-making and making major decisions on major agroforestry activities, women's constructive participation in agroforestry management has been marginalised.

To empower women, the impact of women on maintaining sustainable livelihood patterns was considered. Women felt social empowerment from earning a living through agroforestry activities despite having low education, land ownership and ownership, being unrecognised, and having little participation in decision making. Second, women's empowerment increased bargaining power within the household and financial contribution to the family. However, women's voices are accepted within the household, making them feel empowered and not discriminated against by the backdrops of all the social hegemonic power structures that still operate in the public and private dichotomy. Agroforestry products provide women with opportunities for entrepreneurship, as well as financial security and access to markets where they can sell their products despite male dominance. Finally, women are aware of their voting rights and have taken part in the political process. Although the impact has been minimal, women have valued their autonomy in certain areas. According to the study, women's agroforestry productivity and participation in income-generating activities can improve their livelihood, quality of life, and reduce migration in the Nuapada district. While women can earn a living through agroforestry, which produces seasonal fruits and crops, migration is common in the Nuapada district, which increases their earnings. In this case, proper extension service and guidance can prevent migration while also enriching agroforestry activities, resulting in economic and environmental benefits. Women were also concerned about accompanying adolescent girls to the migrant site for fear of losing social security

and being harassed. because women are getting older and their physical abilities do not allow them to work long hours on agricultural land or in migrant labour areas Lack of proper training, tokenism in government and NGO institution assistance to obtain the benefit, lack of knowledge and expertise in using modern technologies to prepare themselves for transformation, thus putting women behind and excluding them from leadership.

According to the findings, having gender-integrated forest policies is insufficient to reduce pervasive gender inequalities in forestry. For gender-sensitive policy implementation and practise, these policies must be evidenced by technical expertise. Furthermore, clear targets, gender guidelines, strategy, and action plans must be in place, backed up by adequate budgets and institutional mechanisms in forestry departments and agencies, so that gender mainstreaming becomes an achievable milestone within a specific time frame.

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