



Research Article

Women and Agricultural Livelihood in Hills of Assam

Nijara Gogoi¹ & Daisy Das²

Abstract: Women are the integral part of society and their contribution to agriculture sector is worth mentioning. But they remain as an invisible worker. The present study emphasizes on the role of women in hill agriculture in Assam. The study is qualitative in nature and data is collected based on some open-ended questions. Results reveal that women actively participate in all the stages of jhum cultivation right from decision making to labour intensive work. They also practiced livestock rearing, horticulture etc., to earn extra income. However, it is found that the jhum cultivation in Assam is subsistence in nature with minimal profit which is insufficient to sustain their livelihood. Hence, there is an urgent need for development of the agriculture sector in hills of Assam. In this regard, proper governments' initiative can empower women more in agriculture sector as they participate actively and have sufficient traditional knowledge of jhum cultivation.

Keywords: Agriculture, Hills, Livelihood, Women, Assam.

¹Nijara Gogoi, Research Scholar, Department of Economics, Cotton University, Ghy-001, Assam, Email: nijaragogoi.12@gmail.com (Corresponding Author)

²Daisy Das, Professor, Department of Economics, Cotton University, Ghy-001, Assam
Email: daisy.das@gmail.com

1. Introduction

Assam, the gateway of North-east India is a land endowed with rich natural resources and biodiversity. It is an agrarian state that accounts for about 54.11 per cent of the total geographical area of the state, with almost 70% of the population directly dependent on agriculture as an income sourceⁱ. Most of the other states of India are found to be gradually moving towards the industrial sector or service-oriented economy while Assam still remains an agriculture-based economy. However, agriculture in the state is generally backward and underdeveloped. Such backwardness is attributed to many challenges such as lack information on finance and marketing tactics to get the best prices for their output, poor infrastructure, low use of technologies and best farming techniques, decrease of soil fertility due to over fertilization and sustained pesticides (Kalita and Das, 2023). Additionally, the farming in Assam is for subsistence living and there is little profit or commercial motive. As a result, farmers are poor and output is low.

Unlike the plains, there are fewer employment opportunities in hills and they prominently rely on agriculture for living. However, their cultivation is to some extent different from the plains. They mainly practice shifting cultivation which is locally known as jhum cultivation in Assam. It is mainly practiced in hills slopes which are labour intensive. There is a definite cycle of jhum cultivation. This process begins with the selection of a plot in the hills which is done in the month of December and January. Next is the cutting of trees and vegetation in the field. When it dried up the process of cleaning starts by burning the trees, leaves brushes etc., which works as fertilizer in the jhum field. After a sufficient shower, the process of digging starts and varieties of seeds along with paddy is sown in the field. This work is generally done in April and May. The next step is the process of weeding which is generally done by women and this process continues till August. After that, the harvesting process starts from September to October.

Rural women are the backbone of rural development and national economies. Women are an integral part of society and their contribution to the agriculture sector is commendable. They play multiple roles in the agriculture sector and allied activities besides performing their household chores. They are torchbearers for social, economic and environment transformation. Aggregate data shows that women comprise almost 43% of the agricultural labour force globally in developing countries but this figure marks considerable variation across regions and within countries according to age and social class (FAO, 2011). In India, agriculture employs about 80 percent of rural women and it can bring paradigm shift towards economic growth (NITI Aayog, 2022). As per the Periodic Labour Force Survey for 2020 to 2021, the all-India female labour force participation rate has increased to 25.1 percent as

compared to 22.8 percent a year ago.ⁱⁱ In India, 85% of rural women are engaged in agriculture but only 13 per cent of them are the owners of their land (Mehta et al., 2021). This might happen because the society of India is patriarchal but the fact reflects the gender disparity and vulnerable situation of women in the country. Singh and Vinay, (2013) observed that more than 75 percent of women are involved in activities like winnowing, weeding, grading, threshing and cleaning of field farms operation, manual handling of loads, transplantation, land preparation, cleaning of animals etc.

Despite such a huge involvement, women's status is low by all social, economic, and political indicators (Jayasheela, 2015). Chayal et al., (2013) reveals that in the paddy cultivation in plains, except for ploughing, women involved in all kind of works from weeding to plantation of crops, harvesting of crops and various post-harvest activities. Additionally, they perform numerous labour-intensive works for their livelihood. But, their involvement in the decision-making process in agriculture is very low like the agriculture land ownership by women. It is because the majority of the farm women are illiterate, have little knowledge about the latest techniques of farming, face dominance by males and restricted mobility due to several cultural taboos. Farid et al, (2009) reveals that in Bangladesh to meet the daily necessities of life women are actively involved in both agricultural (harvesting and post-harvesting operations, homestead gardening etc.) and non-agricultural activities (livestock and poultry rearing, fishing, selling labour, sewing khata, buying daily necessities and rice husking by dekhi etc). However, women have not got the required position or recognition as active workers and most of the work done by women in India is informal and unpaid. Ghosh and Ghosh, (2014) reveal that 45.3 per cent of the agricultural labour force consists of women in developing countries but a large number of women have remained as invisible workers.

This article tries to find the contribution of women in hill agriculture. Women contribute to the household economy to a great extent not only by performing household chores but also helping financially by assisting in farming and sustain their livelihood. However, their contribution is not recognized properly and they remain an invisible worker. Therefore, we try to revisit some pieces of evidence to examine the role of women in hill agriculture and decision-making in jhum cultivation in Assam.

2. Women in Hill Agriculture

Women can make an immense contribution to the economies of Assam in all facets. Their participation in the labour force varies considerably across developing nations. This variation is driven by a wide variety of social and economic factors including economic growth,

increasing educational attainment, falling fertility rates and social norms (Verick and Chaudary, 2014). Women farmers in India perform the most difficult jobs in agriculture from sowing to harvesting, yet their access to land and resources is less than their male counterparts. Women's workforce participation in Assam now stands at 52.8 percent in rural areas and 31.5 percent in urban areas, surpassing the national average in the year 2025ⁱⁱⁱ.

In hills, peoples are predominantly tribal and agriculture occupies an important place in their lives and society. The tribal people form a small part of the total population of the state and they are often excluded from mainstreaming society in a variety of ways such as education, employment etc. The tribal women are labour harder than that of the non-tribal counterparts and they make significant contribution to their families' income but they are comparatively backward than women in the general society due to their low level of educational attainment, poor health condition, and work opportunities. India is a patriarchal society and women are not equal to men in traditional sense but in reality, the status of tribal women is better than that of the other non-tribal counterparts. Paray (2019) shows that tribal women have comparatively high social position than non-tribal women when it comes to resource control. They have active participation in decision-making regarding land utilization, agriculture and the control of cash flow in the tribal economy.

In plains of Assam, women are actively involved in every step of agricultural activity except ploughing (Khan 2013). However, in hills women are found to be actively involved in every step of jhum cultivation. They are considered as the custodians of this traditional farming system. Roslinda et al., (2023) reveals that Dayak women played an active role in almost all the 12th stages of the jhum cultivation in the form of physical involvement and determining the decision to farm.

In the entire cycle of jhum cultivation, the involvement and presence of women are observed to a great extent. This cultivation is generally called women-dominated farming as right from the cutting of trees, brushes, vegetation etc., to burning and clearing of the field, digging, plantation, weeding, harvesting and post-harvesting works, they participate in every step. The process of dibbling and plantation of seeds is an exclusive job of the female members. Buvinic and Mehra, (1990) reveals that in some countries in Africa, Latin America and certain areas of India, the female farming system is characterized by slash and burn agriculture, communal land ownership etc.

3. Methodology

Conceptual Framework

The concept of this study is based on Sustainable Livelihoods Framework (Scoones, 1998). This framework comprises of five elements vulnerability context, livelihood assets, livelihood

strategy, livelihood outcomes, policies, institution and processes. Regarding women and their agricultural livelihood in Assam, the study highlights all the elements of this framework. In case of shifting cultivation, the vulnerability context is most evident by the nature of cultivation, climate variabilities and gender-based inequalities such as land ownership. Agricultural livelihoods in hills are based on various livelihood capitals, including natural capital such as land for cultivation, human capital such as traditional knowledge and skill and labour, physical capital such as technology of cultivation, social capital such as community farming practice, and financial capital such as income from selling of crops and livestock. Their livelihood strategies are subsistence in nature. Along with cultivation of paddy and other vegetables they also perform some market-oriented activities such as livestock rearing and derived their livelihood outcomes. These livelihood outcomes are seen in the form of income generation, improved food security, and empowerment of women within their households and communities. Regarding institutional and policy support, although it is inadequate, but a little support in the form of eradicating gender norms, providing training for empowering women etc., can made their access to resources and participation. Overall, the framework helps to analyse how women sustain agricultural livelihoods along with the vulnerabilities, limited resources, and evolving socio-economic conditions in shifting cultivation systems of Assam.

Study Area

The study is conducted mainly in three hill districts of Assam namely Karbi Anglong, West Karbi Anglong hills and Dima Hasao. Among these three hill districts, Karbi Anglong is the largest one covering a geographical area of about 7399 Sq. Km., where Karbis are the major hill tribes. The other two districts Dima Hasao and West Karbi hills comprise a land area of 4888 Sq. Km. and 3035 Sq. Km. respectively.

Data Collection

For our study, we used primary data. The field visits are based on 3 focus group discussion in the three districts. Each group comprises of 25 to 30 respondents, both male and female to get village level information on the diverse aspects of livelihood. The representatives of the FGDs are village headmen, experienced farmers, aged people etc. The discussion is based on few open-ended questions. The questions are as under-

- Do women participate in jhum cultivation? If yes what are the activities they performed?
- Do they practice jhum cultivation for commercial purposes or just for subsistence?
- Are women involved in decision-making regarding cultivation?

- What are the other allied activities they performed?

The study is qualitative and we have not applied any quantitative technique here. We just try to obtain information through conversational communication with open-ended questions. Here, we have just tried to get the perceptions of the hill people regarding their cultivation, livelihood and society. It was just a survey of a few respondents selected by convenience sampling. Qualitative studies of this type can be conducted with a limited number of respondents if they can provide the information to the extent we require.

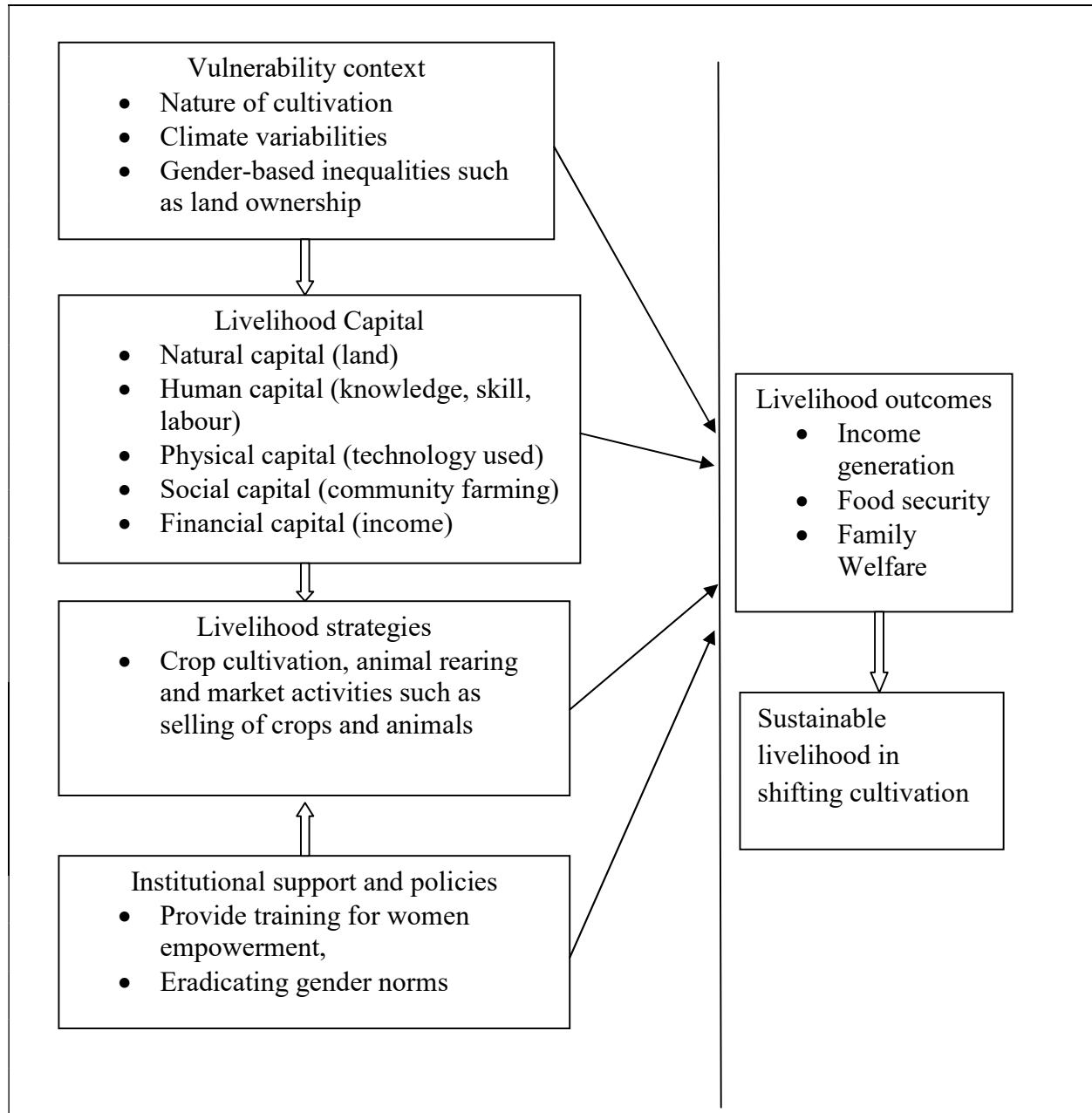


Figure 1: Conceptual Framework

4. Discussions

It was observed from the discussion that the living conditions of the people in the study districts are not much satisfactory as most of the people lives in katcha house. Access to sanitation is also underrated as they have kutchha toilets. There are no proper water supply facilities and most of them used tradition fuel like fire wood, cow dung cake for cooking. Their level of education in women is low as compared to men in the districts. It was observed that in comparison to men, most of the women and children are mainly involved in household chores and cultivation.

The summary of their responses has been mentioned below in their own words.

Case 1: Responses of the resident from Dima Hasao (30 respondents)

“First, we select the suitable plot and cutting of forest is done in December and January where both men and women collectively participate. The whole family is involved in decision-making regarding the plot where a decision about the field is made through a field survey. In the last of March, trees and brushes are burned which are left in the field to dry. This burned field is then cleared by women to cultivate paddy, sesame seeds, and varieties of vegetables. Among paddy, Bora rice is cultivated to make rice beer to drink during festivals. In the first half of May, paddy is cultivated in the field. Sesame seeds are cultivated in June, July. The process of weeding is done first in June and the same process is again repeated in August and September for the second time. This process is done by women and children. The production and harvesting process starts in September and October. The production of sesame seeds is specially done for commercial purposes. Vegetables such as ridge gourd, brinjal, bitter gourd, lady finger, corn, bottle gourd, pumpkin etc., are sold in the market to earn money. We also domesticate animals such as pig, hen etc., for commercial purposes which are sold during the time of Dimasa Bihu to earn money.

In the whole process of jhum cultivation women equally participates with us as jhum cultivation is very laborious cultivation and it required a large labour force. However, now-a-days, there is little practice of jhum cultivation as we have to cut the forests. This cultivation gives us food for the year but the cash we require for the survival of our family and education for our children is not coming from jhum cultivation as we generally do it at the subsistence level. As a result, we are now moving towards industrial or service-oriented sector”.

Case 2: Responses of the resident from Karbi Anglong district (25 respondents)

“In the whole process of jhum cultivation female equally participate with men in selection of plot, cutting of forest, sowing of seeds, harvesting, and other related activities. Some women do participate in decision making of plot and women equally participate with men in the

whole process of jhum cultivation. We generally do mixed cropping to fully utilize the land as the arable area is limited. We generally cultivate rice and along with it, various crops such as maize, sesame, spices such as turmeric, ginger etc., and vegetables. Regarding commercialization of crops, we generally do subsistence cultivation but some people who practice cultivation to a large extent sell their crops in the market too. Along with jhum cultivation, we also domesticate animals such as pigs, goats etc. to earn income to run our livelihood.”

Case 3: Responses of resident from West Karbi Hills (25 respondents)

Similar to the responses of the groups from Dima Hasao district and Karbi Anglong district the groups from West Karbi Hills stated that, “Women help men in the jhum cultivation in all the stage. They equally involved with men in decision of selecting plot, cutting of forest, digging of land, sowing of seeds, weeding, pest control, harvesting and other post harvesting activities. We domesticate animal to earn extra income and contribute to the family income.

5. Finding and Conclusion

We find from our study that the role of women in jhum cultivation is worth mentioning as they play a profound role in jhum cultivation right from the decision of selection of plot to slashing, burning and clearing of the land. It has been observed that the whole family including males and females select the plot collectively. The digging and plantation of seeds, weeding, harvesting and other post-harvesting activities are found to be mostly practiced by women. Besides these, various horticultural activities are practiced which include fruits like banana, orange, lemon, coconut, areca nuts etc., vegetables such as potato, brinjal, bitter melon, ridge gourd etc., are also grown in this region along with paddy. Spices include turmeric, chillies, ginger etc. Apart from these allied activities such as piggery, goatery etc., are domesticated by women for commercial purposes to earn extra income to fulfill the necessities of life. The results show that women are greatly involved in jhum cultivation as well as allied activities and sustaining their livelihood. We also find that the people in the hills generally practice subsistence farming to run their families. The main reason for subsistence farming in hills is due to lack of infrastructural facilities, lack of human labour, small and fragmented land holdings, lack of irrigation facilities etc.

However, now- a-days the practice of shifting cultivation is declining gradually as it is labour intensive and profit is less which is not enough to sustain their living. In addition, educated people do not prefer to get engaged in farming. Further, people are aware of the adverse effect of shifting cultivation on the environment. As a result, people are found shifting from this primary sector to the secondary and service-oriented sector.

It is worth mentioning that tribal society involves women in decision-making to some extent because in tribal society discrimination against women, occupational differentiation and emphasis on status and hierarchical social ordering that characterize the predominant mainstream culture are generally absent (Haseena, 2014). Moreover, although tribal community also prefer son but the birth of girl is also treated equally and they do not discriminate girls against boys. Besides these women are not recognized as active workers and largely limited to low-paid and poor occupation and their status is considered low in social, economic and political spheres as well. This is because of various kinds of social norms and taboos that prevail in most of our societies regarding the entries of women into higher profession.

Today, modernization is bringing changes and women are now equally treated as men in almost all spheres and they have their own world of freedom and self-expression. In the study district, the involvement of women in cultivation and decision making as well as other diversified activities illustrates their adaptability and resilience in sustaining livelihoods. But their earning is not adequate enough for sustaining their living. As a result, people are moving to other sectors for earnings. Hence, for improving the livelihood of the tribal society government should undertake various policies and development programs for empowering tribal women, providing access to livelihood capitals, recognizing their contributions to their living, providing training facilities on market-oriented activities are utmost essential to enhance the sustainability of tribal living. Thus, empowering women not only provides income security but it also improves household wellbeing and promotes sustainable living and comprehensive rural development in Assam.

References

- Buvinic, M. & R. Mehra. (1990). Women in Agriculture: What Development Can Do. *International Center for Research on Women*,
- Chayal, K., B.L. Dhaka, M.K. Poonia, S.V.S. Tyagi & S.R. Verma. (2013). Involvement of Farm Women in Decision-making in Agriculture. *Studies on Home and Community Science*, 7(1), 35-37, <https://www.tandfonline.com/>
- FAO. (2011). The role of women in Agriculture" Agricultural Development Economic Division. *The Food and Agricultural Organization of United States*, www.fao.org/economics/esa
- Farid. K., S, L. Mazumdar, M. S. Kabir and U.K. Goswami. (2009). Nature and Extend of Rural Women Participation in Agricultural and Non- agricultural activities. *Agricultural Research Communication Centre*, 29(4), 254-259
- Ghosh, M. M. & A. Ghosh. (2014). Analysis of Women Participation in Indian Agriculture. *Journal of Humanities and Social Science*, Vol. 19(5) pp. 01-06

- Jayasheela, G. (2015). The Role of Women in Indian Agriculture Sector. *International Journal of Creative Research Thoughts*, 3(2), ISSN- 2320-2882
- Kalita, P. and M. Das. (2023). Agricultural Scenario in Assam in the 21st Century: Issues and Challenges. *Journal of Research in Humanities and Social Science*, 11(7), pp: 134-137
- Khan, M. H. (2013). Women in Agriculture of Assam. *The International Journal of Engineering and Science*, Vol.2 (3), pp. 19-21
- Mehta, S., A. Mehta and S. Agarwal. (2021). The invisible face of agriculture, <https://indiawaterportal.org>
- NITI Aayog. (2022). Rural Women: Key to New India's Agrarian Revolution. <https://niti.gov.in>
- Hassena, V. A. (2014). Land Alienation and Livelihood Problems of Schedule Tribes in Kerala. *Research on Humanities and Social Sciences*, 4(10)
- Paray. M. R. (2019). Status of Tribal Women in India with Special Reference to Socio-Economic and Educational Condition. *Iikogretim Online- Elementary Education Online*, 18(4), pp.2284-2292
- Roslinda, E., S. G. Hardiansyah, Iskandar, T. F. Manurung. (2023). The role of the Dayak Uud Danum women in shifting cultivation. *IOP Conf. Series: Earth and Environmental Science*, doi:10.1088/1755-1315/1153/1/012001
- Scoones, I. (1998). Sustainable Rural Livelihoods: A framework for Analysis. IDS Working Paper 72; *Institute of Development Studies*: Brighton, UK.
- Singh. D & D. Vinay. (2013). Gender participation in Indian Agriculture: An ergonomic evaluation of occupational hazard of farms and allied activities. *International Journal of Agricultural, Environmental & Biotechnology*, 6(1), pp.157-168
- Verick. S, & R. Chaudhary. (2014). Women's labour force participation in India: Why it is so low?" *International Labour Organization*

ⁱ <https://assam.mygov.in>

ⁱⁱ <https://www.newindiaexpress.com>

ⁱⁱⁱ <https://indiatodayne.in>