
**“WOMEN’S SUSTAINABLE LIVELIHOOD PATTERN OF EAST SIANG DISTRICT
OF ARUNACHAL PRADESH IN CONTEXT OF ECONOMIC ACCESSIBILITY”**

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ABSTRACT

East Siang district is a hub of economic and educational development in Arunachal Pradesh. The tribal people living in the district are hard working and intelligent. The study is to explore the scope of women empowerment through naturally available economic livelihood aspects in the sample area and to categorize different traditional livelihood patterns available for them. Both primary as well as secondary methods of data collection are used in the study. The production of the agricultural product and the area under cultivation are based on the 2011 Census. The study found that people of the sample are associated with agriculture, horticulture, livestock farming and fishery etc. The tribal women of the sample are also experts in weaving traditional dress. The paper seeks to address the hard working attributes of the tribe women and the economic livelihood pattern available for economic sustainability for them. With other livelihood patterns, bamboo products both edible and household products for sheltering and crafting, are emphasized in the study.

Keyword: Livelihood Pattern, Bamboo shoot, cultivation, Women empowerment.

INTRODUCTION

Arunachal Pradesh, known as “Land of Dawn-lit Mountains”, is a home to 110 sub-tribes and 26 major tribes in Indian territory, with distinct cultural traditions and way of life. The major tribes of Arunachal are: Adi, Galo, Aka, Apatani, Nyishi, Tagins, Bori, Bokar, Monpa, Sherdukpen, Mishmi, Khampti, Nocte, Wancho, Tangshangng, Singpho, Buguns, Hrusso, Yobin, and Khambas and Membas. The sun and the moon are the presiding deities of the major tribes who follow the Donyi-Polo religion (the name stands for sun and moon).

SOCIO-ECONOMIC PROFILE OF THE DISTRICT

The main tribes of the district are Adi, Galo, Mishng & Idu-Mishmi. The main crops of Agriculture and Horticulture are paddy, Maize, Orange, Millet, Mustard, Dal, Black-Pepper, Turmeric, Potato, Sweet-potato, Cabbage, Cauliflower, Pumpkin, Tea, Cardamom, Drumsticks, Chilly, Ladies finger, Soya-bean, green-bean, lettuce, tomato, Banana, pineapple, Mango, Papaya, Lemon, Lime, Guava, Sugarcane, Jackfruit, cucumber, star-fruit, lychee, Pomelo, Gooseberry etc. The total agriculture cultivation area of the district is 36,290.9 hectares and Horticulture cultivation area of the district is 8,249 hectares as per Agriculture and Horticulture Department. East Siang as a whole is a disaster prone district. It is vulnerable to major natural hazards like Earthquake, Cyclone, Flood, Flash-Flood, Cloud burst, Drought and manmade disasters like fire accident, road accident, etc¹

The people in the district practice wet rice cultivation and have a considerable agricultural economy. Rice serves as the staple food for them along with meat fish, meat (Lukter) and green vegetables. Different varieties of rice are cultivated by the tribe in the district. Lettuces are the most common and preferred vegetable of all, prepared by boiling it with ginger, coriander, green chillies and pinch of salt.

DISTRIBUTION OF POPULATION IN RURAL-URBAN AREAS

According to the 2011 Census, there are 99,214 people living in East Siang district **with an** overall distribution of 50,116 men and 49,098 women, making up 7.2 percent of the state's population and covering an area of 3,603 Square kilometers. Pasighat (36,354) and Kora (884) are the two most and least populous of the district's fifteen circles, respectively. The circles in accordance to descending order of population size are as; Silte-Oyan, Namsing, Mebo, Boleng, Ruksin, Nari, Bilat, Riga, Pangin, New Seren, Rebo Perging, Koyu, and Kebang circles. About Seventy Eight per cent of the population of East Siang district reside in rural regions and 22.2% in urban areas. The district's decadal growth rate is 13.5 percent. The district has a population density of 28 people per Square kilometers and a sex ratio of 980. The district's literacy rate is 72.5 percent, and its employment rate is 40.5 percent.

¹ <https://sdma-arunachal.in/east-siang-ddma/>

The district contains towns such as Boleng and Pasighat (2011 Census). The census indicates that 85004 people lived in rural areas and 14639 lived in urban areas. The availability of SC people in the district is :- 297 rural 150 urban and that of ST is of 68330 of which 64525 recedes at the rural area and 3505 lived in urban areas. Sex ratio of the people living in the rural and urban areas of the district was 980 and 978 respectively.

OBJECTIVES

1. To explore the scope of women empowerment through naturally available economic livelihood aspects in East Siang District of Arunachal Pradesh.
2. Categorization of different traditional livelihood patterns in the district such as Traditional Food, Handicraft (bamboo based products), Traditional Medicine, Agriculture etc.

METHODOLOGY

Both Primary as well as secondary data would be used for the study. The primary data will be collected through personal interviews to the respondents with the help of a well-structured schedule. The schedule would include the possible livelihood economic activities, where the respondents are to tick their opinions and to add if there are more in their opinion. Moreover Exploratory and Descriptive strategies were used to gather the required data. After the economic activities are categorised. The respondents are selected from each category to know about the availability and the possibility of economic entrepreneurship. Additionally, approaches for personal observation, targeted group debates, etc. were used to gather all available data on the group's characteristics and qualitative data on the behavior of the respondents.

ANALYSIS OF LIVELIHOOD PATTERNS

The economy of East-Siang district of Arunachal Pradesh grew significantly as a result of agricultural operations. Moreover, rural households also had the option to work and earn income through non-agricultural activities which relieved the farmers in shouldering their burdens. In both occupational categories (farm and non-farm families), it may be inferred that the majority of respondents were engaged in non-farm activities. Additionally, it was found that the majority of farm households followed the pattern of agriculture + horticulture + livestock as their primary source of income rather than non-agro based businesses.

It is the women who occupy the major role in the social-economic of tribals. Women in Arunachal Pradesh have been playing a major role in agriculture, looking after livestock and

collection of fuelwood, vegetables etc, she is the person in the family who takes initiative to look after the family. Most of the myths and beliefs are based on female divinities; Sun is worshiped as the omnipotent Goddess and Moon as the God likewise Feminine principle suggests Fire as the female and Ash a male.

The contribution of tribal women in the family starts from childhood and continues unabated till their death. They are independent to all household work from running errands, household chores, working on Jhum fields/ forests while tending infants tied to their backs or fetching water from riversides. They are very much expert in sowing seeds, watering fields, fencing, transplanting, weeding, harvesting and preservation of grains/meats. Tribal women of Arunachal Pradesh are very good weavers and repositories of cultural and folk traditions. They are experts in traditional style cooking of food and meat, making Apong(rice/millet beers), etc which are always to be available in respective festivals of the tribes.

RESULT AND DISCUSSION

The study implicates women in the East-Siang who use natural resources to support sustainable livelihoods. Women's economic demands empowering them also contributes to more comprehensive social development. The livelihood patterns available in the districts for women may be discussed as below.

Paddy, Maize, Millet Cultivation:

It will also help the farmers in identifying the suitable locations of paddy cultivation for greater production and income. Out of the limited cultivable land, the results show about 10% of the area as highly suitable and around 37% of the area as moderately suitable for paddy cultivation. However, the study found that most of the potential areas are currently unexplored or underutilized. Therefore, the findings of the study need to be disseminated to the farmers through the Directorate of Agriculture, Government of Arunachal Pradesh to help the farmers in the selection of suitable areas for paddy cultivation. The state government particularly the Directorate of Agriculture could play a crucial role to increase the total production and area under paddy cultivation in the district².

² Mahato, Ranjit, Bushi, Dhoni and Nimasow, Gibji.(2024). Remote sensing and geographic information system-based land suitability analysis for precision agriculture: A case of paddy cultivation in East Siang district of Arunachal Pradesh (India). ISBN-9780323910682, pp-151-173

As per State Directorate of Economics and Statistics, Ministry of Agriculture, Govt. of India, the geographical area of the district is 400.50 thousand Hectares of which 40.92 thousand hectares of land are cultivable. The cultivation is undertaken in two phases, Kharif and Rabi. Three major Kharif crops cultivated in the district are Paddy, Maize and Millet. Pulses and ginger also come under the same category. The area under cultivation of the crops in the district are, Paddy 13.137 thousand ha., Maize 2.883 thousand ha, Millet -2.220 thousand ha, pulses-0.937 thousand ha and ginger-0.177 thousand ha. On the other hand the Rabi crops include oilseeds, potato, etc.

The production of Paddy was 29.594 thousand tonnes with the productivity of 2252.72 kg per hectare. Similarly, production of maize was 6.444 thousand tonnes with a productivity of 2235.17 kg per hectare, production of Millet was 2.740 thousand tonnes with a productivity of 1234.23 kg per hectare, production of pulses, oilseed, potato and ginger were 0.957 thousand tonnes, 1.426 thousand tonnes, 1.701 thousand tonnes and 1.636 thousand tonnes respectively with the productivity of 1021.34 kg, 821.90 kg, 5785.71 kg and 9242.94kg per hectare respectively. (Statistical Abstract, Arunachal Pradesh, 2007)

Fruit Cultivation:

As per Statistical abstract, Arunachal Pradesh, 2007 the major fruits cultivated in the district are Orange, Banana and Pineapple. The areas under cultivation of these fruits are, orange-0.780 thousand ha., Banana- 0.350 thousand ha. And pineapple-0.235 thousand ha.. However, fruit like lychee, gooseberry, starfruit, jackfruit and guava are also cultivated in the district. As per Statistical Abstract, Arunachal Pradesh, 2007, the production of oranges in the district was 7.019 thousand tonnes and that of banana was 3.971 thousand tonnes with a productivity rate of 1531 kg and 6894 kg per hectare respectively. Similarly, the production of pineapple was 3.922 thousand tonnes with a productivity rate of 3298.57 kg per hectare.

Vegetable Cultivation:

As per Statistical abstract, Arunachal Pradesh, 2007 the major horticulture crops vegetables are Cabbage, Tomato, okra, Brinjal and chilly. The area under cultivation of the vegetables are, cabbage-0.074 thousand ha., tomato-0.049 thousand ha., Okra-0.041 thousand ha., brinjal-0.039 thousand ha., and chilly- 0.154 thousand ha.. However, vegetables like Black-pepper, Turmeric,

Potato,, Cauliflower, Pumpkin, Drumsticks, Chilly, Ladies finger, Soya-bean, Lettuce, Cucumber, Lime, Lemon, and Papaya etc. are also cultivated in the district.

As per Statistical Abstract, Arunachal Pradesh, 2007, the production of cabbage, tomato, Okra, Brinjal and Chilli was 10.240 thousand tonnes, 1.706 thousand tonnes, 0.054 thousand tonnes, 0.833 thousand tonnes and 0.238 thousand tonnes respectively, with a productivity rate of 16000 kg, 1333.2 kg, 1600 kg, 2500 kg and 1545.45 kg per hectares respectively.

Animal Husbandry:

As per LiveStock census 2007, the availability of indigenous cattle was 74.10 thousand with a distribution of 35.60 thousand male and 38.50 thousand female, 3.91 thousand crossbred cattle with 1.80 thousand male and 2.12 thousand female, 0.674 thousand local buffaloes with a distribution of 0.350 thousand male and 0.324 thousand female, 23.51 thousand goat of which 9.52 thousands are male and 13.99 thousands are female, 35.15 thousand pigs of which 18.93 thousands are male and 16.22 thousand are female. The poultry sector, the availability of birds in the district was 148.64 thousand, which were domesticated in the backyard.

As per data of the department of district Veterinary office; fishery department , East Siang , Arunachal Pradesh, 2007, the water spread area for fish farming was 300 thousand of which 0.180 thousand tons fishes were produced. Similarly , the water spread area for ponds/farms were 97.6 thousand ha of which 0.047 thousand fishes were produced.

Bamboo Products:

In East Siang district of Arunachal Pradesh fresh bamboo shoots are a preferred food. Fermented bamboo shoots are one of the most popular traditional dishes. Construction of dwellings and agricultural implements that produce food, fodder, and other essentials is a widespread custom in rural areas, especially among tribal people, Bamboo shoots are a low-fat, high-dietary fibre, and mineral-rich vegetable.

Bamboo as food:

Bamboo shoots are generally accessible to the general public, include high-quality carbs, vitamins, minerals, and proteins, and may help rural poor people to address their nutritional deficiencies. Some of the bamboo edible products with there price in the local market are Tender Bamboo Shoot “**Eiting**” (local name) - Rs 50/Piece , Fermented Chopped Shoot, “**Iikung**”- Rs

200 per Container of 2 liter ,Dried Fermented Chopped Shoot “Iiyup”, Rs 100 per 100 Gram and Fermented Shoot “Iipeng” Rs 50 per Piece .

Bamboo Crafts:

The bamboo is of multiple use. It is used for house construction, traditional fencing for many uses. Moreover, bamboo also has a market demand for its craft items . some of the major items along with its price in the markets are, Cylindrical Basket (Egin/Igin)-Rs 1500-2000, Winnow wing Tray (Epoh/Opoh)-Rs 500-700 , Hunters Bag (Taali/Lettu) , Cylindrical Fishing Basket (Narang/Raju) , Mouse Trap (Etku/Ooju), Stool (Mura)-Rs 500-800 , Chicken Cage (Petiir)-Rs 100-150 , Machete (Hobuk)-Rs 100-200, Hat (Hobuk)-Rs 2000-3000, Table (Pori Keng)- Rs 2500-3000 , Rain Shield (Ebong)-Rs 150-200, Spoon (Penyo)-Rs 50 , Spoon (Penyo)-Rs 50 , Weaving Tools (Gekong Gelong)-Rs 500-1000, Rice Plate Stand (Doreh), Bow and Arrow (Eiye Eppuk), Trap-Rs 10-15, Fishing basket -Rs 100-300 , Mug- Rs 50, Back pack bag -Rs 500-1000, Vegetable basket - Rs 200-300, Container-Rs 100-200 and so on. (Saroh Yakam, Riba Prof. Tomo . 2024)³

Traditional Dress and attires :

The traditional dresses and attires are emotionally attached with the people of a tribe. They are the symbol of their cultural identity. They are used at observation of various traditional celebrations, public meetings and other platforms of cultural as well as social importance. Hence, these traditional items have a market of economic importance. major traditional dresses of adi are Nupro (Helmet), Dudap (Necklace), Narmi Galuk, and Ugon worn by men along with, Yoksa, (traditional sword). Some major traditional items wore by Adi women are Dunko Tayup (Viel wore on the women's head), Tampilang, Sondorong, Nog, Dokpun, Madoli, Golpota, Sumbi-Belt, Moieng Galug, Gale.

Conclusion: Most of the female farmers are without adequate knowledge of farming. However, the majority of farm women were keen to know about the selling of their products. They used to sell from their home or in contact with the middle men. From the study it can be revealed that farm women had increased the level of financial and human capital forms of empowerment were more likely towards improvement in the livelihood of their families. Women's livelihoods are

³ Saroh Yakam, Riba Prof. Tomo (2024). Bamboo a Vital Sustenance for the Adis of East Siang, Arunachal Pradesh, *International Journal of Research Culture Society*, 8(3),137-145. DOI:10.2017/IJRCS/202403025

often dependent on natural resources, which can make them vulnerable to food insecurity. According to Indian Council of Agricultural Research, the highest percentage of involvement was in agriculture (30%), followed by weaving (26.7%), pickling (13.5%), confectionery and animal rearing (11.6%). Women are the centre of all development. The development of a community cannot be dreamed of by leaving the women aside. The economic development in the tribal community of the sample district also has an inexorable part to be done by the women of the society. From the above discussion it is found that there are many opportunities available naturally for the tribal women of the society, both in production and the sale. The sample district is a developing district, the rate of migration of the people from various parts of the country for economical settlement is very high. The tribal women in the sample district can opt for paddy, maize and millet cultivation, fruit production and sale. They also can opt for production of bamboo edible products and materials of day to day household use, Fruit business both production and sale in either micro level or macro level, Grocery cultivation of various categories of vegetables around the session, animal husbandry, and business on traditional dress and ornaments along with traditional attires are also available for the tribal women of the sample . The tribal women of the sample are also found to be very expert in pickle making. Moreover, the butchering of chicken, pork, mutton, fish and beef are also an opportunity for the women of the sample area. With the rapid development of the sample district, demand for the material, and edibles have increased in the market.

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