

Socio-Economic Condition, Livelihood Pattern and Opportunities for Sustainable Intervention: A Rural Appraisal of Nameri, India

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Abstract

Nameri National Park (NNP) is a major tourist attraction in Assam. Tourism in Assam is mostly nature-based and rural. NNP is also surrounded by rural areas inhabited by numerous tribal and non-tribal Assamese communities. The frontier villages of the National Park fall under the village forests category of the Assam Forest Regulation Act of 1891. The legislation prohibits any economic activity in those village forests that may impact the biodiversity of the National Park. This limits the residents' access to land rights, forest resources, livelihood options and decisions regarding enhancing their standard of living. In light of the challenges experienced by the residents of the village forests of NNP, this article is an effort to better understand the current socio-economic condition of the four village forests of Nameri. This work was carried out under the Special Assistance Programme of the University Grants Commission. The study identified and recommended five areas where livelihood intervention activities could yield favourable results. The authors argue that with a long-term realistic approach, efforts should primarily be focused on these areas. It is argued that if more non-agricultural livelihood options can be promoted and encouraged, overdependence on farming may be reduced. Nameri has significant potential to grow as a rural or cultural tourism destination. Given the favourable characteristics of the area, the tourism industry may prosper there if the right efforts are made. The study has also stressed the importance of the local youth as a human resource and the potential for developing sustainable alternatives to agriculture in the form of handicrafts and handloom and the production and distribution of arecanut plates. This article can be used as a guide for implementing livelihood generation/enhancement and capacity-building projects in these villages.

Keywords: Assam, rural livelihood, protected area, sustainability

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Introduction

Most people in India reside in rural areas (Press Trust of India, 2013) and rely heavily on agriculture (Jena, 2021). The government's current job creation efforts have yet to yield encouraging results (The Economic Times, 2020). The livelihood prospects in the rural areas of Assam are also very few. According to the Ministry of Tribal Affairs' data, Assam has more than 500 village forests (Sabrangindia, 2022). Due to their socio-economic circumstances, lack of opportunities, and restricted access to resources, rural populations living close to forested areas are frequently marginalised and dependent on the resources of the forests for their survival (Adalina et al., 2014).

With regard to providing these rural households with essentials and other sources of income, forests play a crucial role (Bijaya et al., 2016). In reality, numerous studies have shown that forest resources are a regular source of income augmentation for rural people (Shackleton et al., 2007; Bijaya et al., 2016). Due to encroachment and removal for agricultural purposes, forest areas have been rapidly diminishing (Kobayashi, 2004). Since the local inhabitants in the periphery areas depend on forest resources for their daily needs, denying them access to such resources impacts their way of life. It causes conflicts between the residents and the government and the invasion of forest regions (Uwemeye et al. 2020).

Nameri National Park (NNP) is a major tourist attraction in the Sonitpur district of Assam, India. Tourism in Assam is mostly nature-based and rural. NNP is also surrounded by rural areas inhabited by numerous tribal and non-tribal Assamese communities. The frontier villages of the National Park fall under the village forests category of the Assam Forest Regulation Act of 1891. The legislation prohibits any economic activity in those village forests that may impact the biodiversity of the National Park. This limits the residents' access to land rights, forest resources, livelihood options and decisions regarding enhancing their standard of living. Since they lack land *patta* (land rights), they cannot sell, lease, or mortgage their property during a financial crisis or obtain loans from banks against it. Protected Areas (PAs) like NNP can be effectively maintained only if tourism, conservation, and community livelihood are harmonious. Thus, sustainability is being emphasised

in the tourism industry and other development-related fields, which is currently given high priority (Saikia & Goswami, 2018).

Residents' attitudes and behaviour toward the environment and forest resources are largely impacted by the advantages it provides for their way of life (Reggers et al., 2016). In Nameri, there have been instances where some people have developed a reputation as notorious poachers, engaged in conflict with forest officials, lost their means of subsistence, and, if not provided with alternative sources of income, have remained a constant threat to exploit the natural resources. Because these communities constitute the NNP's boundaries, a positive relationship between them and their natural surroundings may lessen the Park's external risks. Numerous intervention strategies and policies are required in this regard. Such policies and their results are typically influenced by the communities' access to viable livelihood options (Zhao, 2013).

In light of the challenges experienced by the residents of the village forests of NNP, this article is an effort to better understand the current socio-economic condition of the four village forests of Nameri. A study has yet to evaluate the socio-economic scenario and the livelihood of the marginalised forest communities of Nameri. This study also aims to investigate and identify prospective areas for sustainable development policy guidance. Understanding the residents' existing situation may facilitate discussions on improvements to their standard of living. This article can guide government officials, NGOs, financial institutions, and others to implement livelihood generation/enhancement and capacity-building projects in these villages.

Methodology

NNP is situated on the eastern Himalayan foothills in the northern Sonitpur District of Assam. Jia Boreli River borders the west of the 200 sq. km. National Park, while the Bor-Dikorai River borders the east. The Pakke Tiger Reserve in Arunachal Pradesh is located to the north. Four Nameri National Park peripheral villages were chosen for the study—Dharikati, Uttar Dharikati, Potasali/Torajan, and Sonai Miri. The villages are in the Indian state of Assam's Chariduar sub-district of Sonitpur district. The southern limit of

the NNP core region marks the location of all four settlements, which are village forests.

A structured schedule with closed and open-ended questions was prepared to gather socio-economic and demographic data about the households in the survey area. Data were collected in March 2022 through a door-to-door survey. Every home in the study region was visited, and those who could and would participate were asked for information. Ideally, the household's head was asked to participate in the survey. The survey took each responder between 30 and 35 minutes to complete. Due to insufficient responses, only 263 of the 300 gathered schedules could be used. Following that, descriptive statistics were employed to present the survey results. In addition, field visits were made for community-based rural evaluations, to map local resources and to speak with local weavers and craftspeople.

Table 1: Sample size of the study

Villages	Households
Potasali/Torajan	60
Dharikati	62
Uttar Dharikati	72
Sonai Miri	69
Total	263

Socio-economic scenario in the fringe villages

The survey found numerous families from various Assamese indigenous communities reside in the study area. In fact, the bulk of village homes were inhabited by indigenous people. The Musings of Assam were the most prevalent tribe in the region, making up around 36% of all households (refer to Figure 1). In addition to them, other Assamese tribes like the Boros and Rabhas made up around 6% of the population, and non-tribal Assamese people made up about 38% of the households. Nearly 20% of all families were made up of Nepali-speaking Assamese people.

Potasali/Torajan village comprised the highest percentage of non-tribal Assamese residents among the four villages. In the Assamese villages of Dharikati and Uttar Dharikati, the Mising community

predominates, while most houses in Sonai Miri are Assamese who speak Nepali. The survey results indicate that Nameri is noteworthy for having many diverse groups with unique ethnic identities in such a small area. All of these communities have distinctive cultures and priceless traditional knowledge.

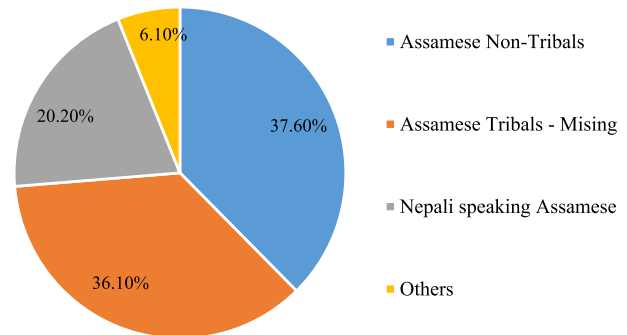


Figure 1: Community of the villagers

Even though nuclear families comprised most households (59.3%), a sizable portion of people lived in joint families (40.7%). The average family size is around five, while more than one-fourth of the households (32.3%) reported having a family of four. The total population of the surveyed households consisted of 1301 family members. The proportion of males (n=655) and females (n=649) in the total household members is roughly equal. The households comprised 957 adult members and 345 children under the age of 18 years.

Among the adults, those between 26 and 35 were the majority (22.21%), followed by those between 18 and 25 (16.6%). About 26% of the total population was under 18 (Figure 2). Thus, a large percentage of the population was younger. This is interesting because if the young population can be successfully transformed into a trained, knowledgeable, and efficient workforce, this characteristic could be a positive strength for the area's economic development.

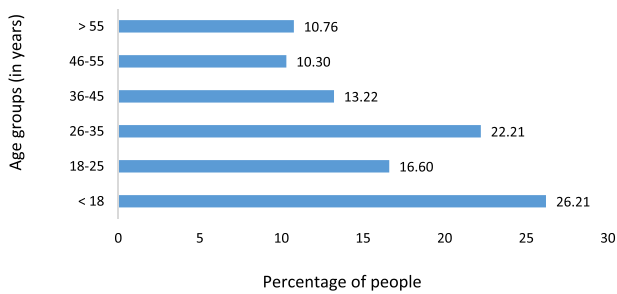


Figure 2: Age of the household members

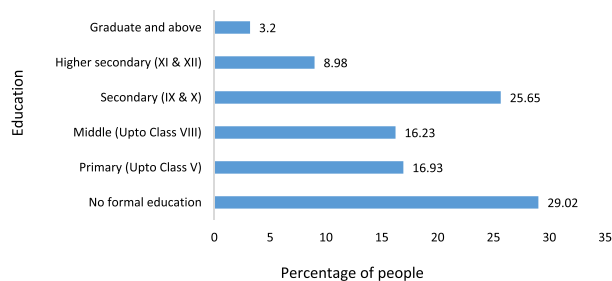


Figure 3: Education qualification

The field survey, however, showed that the region's educational climate could be more promising. Most people (29%) lacked formal education (Figure 3). The percentages of people with primary-level education (up to class V) and medium-level education (up to class VIII) were around 16 and 17%. Nearly 26% of those surveyed had completed secondary school (class IX or X). Only approximately 9% of the population had completed higher education (class XI or XII), and only about 3% had graduated from high school or obtained a higher degree. More persons need the necessary training or skills to participate in activities from a tourism standpoint. Guides from other regions have abused the situation because there aren't any qualified or experienced locals.

Entrepreneurial pursuits in tourism or other areas have also been restricted due to a lack of capital and credit access. They mostly rely on their savings for business, agricultural operations, and emergencies. However, households typically borrow money from friends, family, or other family members when they need credit. Among banks, self-help groups (SHGs), and moneylenders, the SHGs were more popular among households because of their credit needs. Results suggest that 26.6% and 28.5% of households borrow money from SHGs for emergencies and

agricultural/commercial purposes. About 61% of the households have a family member who has joined some SHG. Most SHGs are connected to the Chariduar Branch of the Assam Gramin Vikash Bank in Sonitpur. Figure 4 shows that in times of financial need, households are more likely to turn to SHGs and moneylenders than to banks for their financial needs. This may be due to the lengthy documentation or approval processes in banks. The distance between banks and the villages may also be a possible explanation since the closest bank is about 10 kilometres away.

On the other hand, the villagers are least likely to turn to money lenders for their agricultural or commercial credit needs. This is mostly because of the higher interest rates imposed by money lenders. People are inclined to approach money lenders only in an emergency.

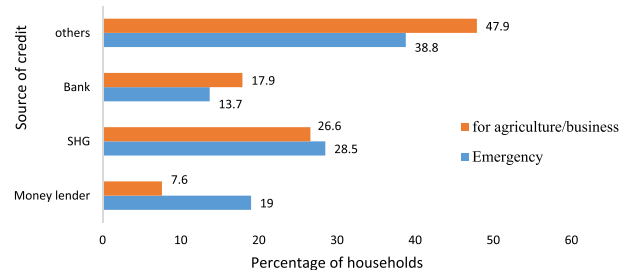


Figure 4: Preferred source of credit

Since many respondents felt uncomfortable disclosing their genuine income, it was impossible to estimate the average income of the households. Therefore, the households' financial situation was assessed based on the assets they owned, such as pakka houses, vehicles, televisions, land area, and livestock, as well as other factors like the number of dependents and employed members. Most households' financial situation was observed to be on the weaker side. Furthermore, 70% of the households reported having access to the provisions Below Poverty Line (BPL).

Regarding healthcare, the closest hospital is located in the Chariduar Center, around 7 to 10 kilometres from the villages. Only 13.4% of the families could afford to pay for medical care in case of an accident or severe illness of any member. A little under 37% of families claimed they could afford it but only with

great difficulty, while 26.8% could afford it with little difficulty. Only around 15% of households could afford such care without borrowing money. About 7% of the households needed help to afford such treatment.

Livelihood pattern of the village households

According to the research, 37% of the residents worked for a living in some capacity, compared to 63% of people who were jobless, homemakers, students, or seniors. As shown in Figure 5, farmers comprised the bulk of employed people, followed by wage workers. According to survey responses, nearly 70% of homes had at least one farmer in the family. Similarly, at least 30% of the homes had at least one family member engaged as a wage earner. About 15% and 10% of all households had at least one family member working in the service and retail sectors, respectively. It should be mentioned that the central government's NREGA program's advantages hardly ever reached the research area's rural communities. According to the survey, 63% of families had at least one member registered under NREGA. However, in the previous year, they mostly did not obtain any work under the scheme or just occasionally did.

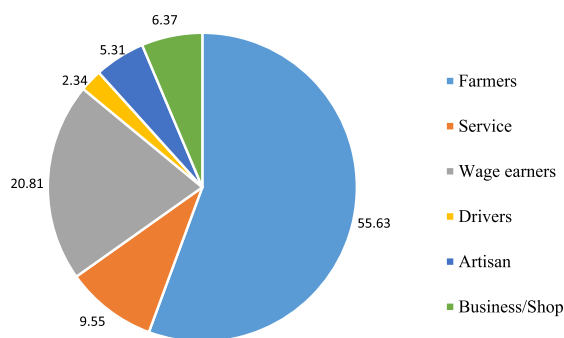


Figure 5: Primary Occupation of the households

Agri-based livelihood:

It was discovered during the field visits that the inhabitants of the forest villages are concerned about losing their ownership of their land. Plantation drives are passively discouraged in the villages because the residents worry that the re-emergence of forest regions may risk their land rights in the future and possibly result in their displacement. However, the soil here is highly fertile. Commercial

crops like paddy, arecanuts, tea, black pepper, betel leaf, lemon, bhut jolokia, and litchi are farmed on a sizable scale. Even Tezpur Litchi varieties with G.I. patent were successfully cultivated in the area as part of the area expansion plan of the Department of Agriculture, Assam.

The survey participants were asked to rank their primary source of household income in terms of their mode of livelihood. The results showed that "food grains/crops/vegetables" had the most responses in both rank 1 (54.8%) and rank 2 (27.8%). It demonstrates the villagers' reliance on agricultural outputs for survival. According to the findings, about 70% of households are involved in rice farming (refer to Figure 6), which explains why rice is the region's most widely grown crop. In addition, 24.5% of families grow spice crops, while over 62% of households grow leafy vegetables. The survey discovered that up to 90% of the households have arecanut plantations on their land in addition to other plantations and horticulture crops (refer to Figure 7). It is followed by banana plantations, which account for 65% of households, while bamboo (53%) and coconut (51%) are next. The size of the farmers' land holdings significantly influenced the quantity and variety of their crops since farmers with larger land holdings tended to diversify their plantations.

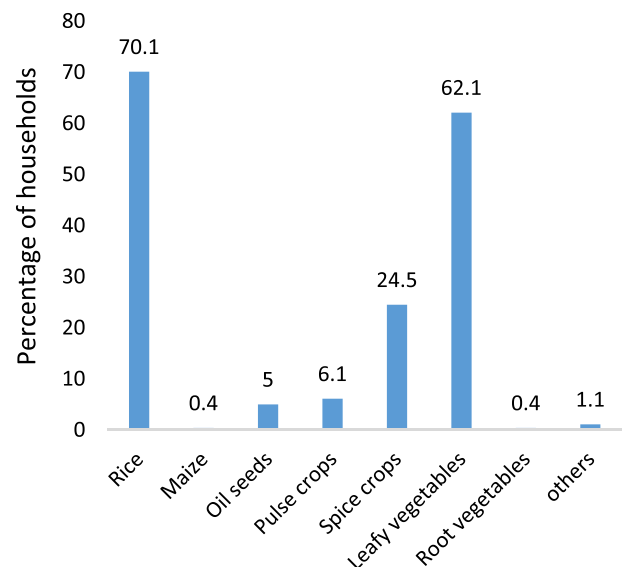


Figure 6: Agricultural crops being produced by households

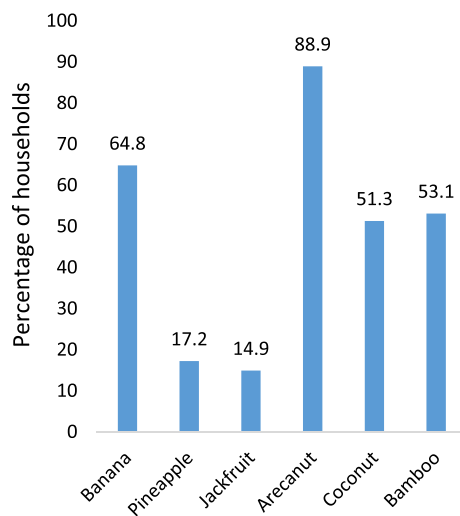


Figure 7: Plantation/
horticultural crops

According to the survey, the majority (66.4%) of people who cultivate agricultural or other crops utilise the products for both their own consumption and for selling. However, they only sell when there is excess production. A little under 29% of the households produce for their own consumption and cannot sell their surplus. Conversely, less than 1% of households (0.4%) raise crops exclusively for sale. Most households (31%) sell their extra produce to the village merchants, followed by purchases in the nearest wholesale market (27.5%).

Although it is usual to do farming and livestock raising simultaneously, integrated farming in a broader economic sense is nearly nonexistent. Nearly 93.5% of the families reported having some livestock in their residence. However, most households (84.8%) do not rely on raising livestock as a source of income. The lack of capital may be the biggest deterrent to practising integrated farming. Clearly, households raising livestock as a primary activity and farming were in a better financial position than other households that engaged only in farming. It was also discovered that more members were involved in farming in the families that practised integrated farming. A strong correlation could also be observed between the households' economic position and the quantity of livestock held. With some financial assistance and training, the households can be encouraged to engage more actively in agricultural

and animal-rearing operations, perhaps creating new sources of income for them.

Handicrafts, handlooms, and artisanship

About 47% of the families reported having at least one member involved in artisanal or handicraft activity. Of the four villages, Dharikati has the most of these houses. Around 76% of Dharikati's families are familiar with handicraft or artisanship activities. With 51% of the homes, Uttar Dharikati is next. Nearly 80% of individuals involved in handicraft and artisanship are female, whereas just 20% are men. Their primary line of work is weaving (69%), followed by tailoring (28%), both dominated by women. It is followed by the primarily male-focused trades of carpentry (15%) and masonry (16%).

As already mentioned, the Mising community predominates among those living in the clusters. The Musings are skilled weavers noted for their exquisite, vivid, and colourful patterns. For the Mising women, weaving was traditionally a need. This custom has been successfully maintained by the Musings of Nameri. The materials they weave on looms include the mekhela chador, gamusa, muffler, bag, waistcoat, cushion cover, handkerchief, mobile bag, elephant pants, and dupatta. Although the presence of these weavers and their products is favourable for the tourism industry, it is regrettable that most homes involved in artisanal or handloom activities (50.4%) produce the items for their own use. About 38% of the weavers sell locally to villagers if they receive orders, but such sales are not frequent. Some sell them to local businesses or NGOs. Only a few weavers engage in regular weaving, but they often receive orders along with raw materials from local NGOs. The respondents in the survey who were already weaving or planned to start were asked if they would be open to additional training in the future to advance their craft. The majority of them (55%) gave a positive reply.

In Nameri, traditional creativity is also evident in the bamboo craft sector. Anyone visiting Nameri will see bamboo constructions made with skill and artistry. These were created by Mr. Pratap Das, a self-taught bamboo craftsman from Potasali/Torajan specialising in bamboo work. His creations include bamboo homes, furniture, trinkets, and kitchenware.

There are others with expertise in this field as well. However, farming continues to be their primary source of income.

NNP and tourism livelihood

The Nameri National Park (NNP) was formed in 1988. The NNP is renowned for its variety of birds, and it is the only National Park in Assam that permits trekking within its central region. It is located within 120 kilometres of Kaziranga National Park, a Natural World Heritage Site, and falls on a major bird-watching tourist circuit of Northeast India (Guwahati- Kaziranga- Pakke- Eaglenest circuit). Additionally, Nameri is situated in a prime spot along the popular Guwahati-Kaziranga-Dirang-Tawang tourism route. Due to its conservation values, the NNP has also been incorporated into the Sonitpur Elephant Reserve. Tourism is prevalent in the Park. Since these are forest villages, the forest department is in charge of overseeing any development there. Visitors interested in nature travel from all over the world due to NNP's apparent attractiveness. The region's tourism industry has prospered due to the rising number of visitors. The primary recreational activities are bird-watching, trekking, rafting, village excursions, cycling, shopping for souvenirs, and other pursuits like sampling local cuisine.

On the river, Jia Bhorali, rafting is available, beginning at the 13-mile stretch and continuing until Nameri Potasali ghat. Around 60 boatmen from the villages are employed in part. The abundance of avifaunal species along the river's banks offers numerous opportunities for bird viewing. In addition to trekking and rafting, the lodging facilities arrange ethnic village tours based on visitor demand. These trips frequently include farm visits, interaction with local residents, village walks to exhibit rural life, cultural performances by local groups, demonstrations of traditional weaving techniques, local cuisine and drink, story-telling sessions, etc. Cycling in the countryside may occasionally be combined with village tours. The Assam Bhoreli Angling Conservation Association's (ABACA) Golden Mahseer Brood Tank, the Pygmy Hog Conservation Program's Potasali breeding facility, and the Tourist Interpretation Centre are some of Nameri's additional points of interest.

Due to the area's apparent popularity, other tourist camps have sprouted up, aiding Nameri's tourism industry. The data shows five homestays and nine visitor camps are close to Nameri National Park (Table 2). Not all of them fall inside the research area, even though they are close to the National Park. Some camps have employed and trained local youths in hospitality and the culinary arts. During the tourist season, several people work in the camps to earn their daily living. It should be highlighted that all of the tourist camps feature local artwork and workmanship. The other units are privately owned except for Nameri Eco-Camp and Prashanti Tourist Lodge.

Table 2: Tourist accommodations near Nameri National Park

Name	Location
1. Nameri Eco-Camp	Potasali
2. N-Palky Camp	Torajan
3. Baligora Eco Camp	Torajan
4. Lalimou Camp	Uttar Dharikati
5. Nameri Jungle Camp	Torajan
6. Whistling Bamboo Eco-Stay Camp	Torajan
7. White Winged Camp	Potasali
8. Prashanti Tourist Lodge (Govt. owned)	Uttar Dharikati
9. Nameri Kanyaka Resort	Gamani
10. Nyishi Homestay	Phuluguri Nyishi Gaon
11. Mising Homestay	BaliGaon Miri
12. Garo Homestay	Bakola Gaon
13. Bodo Homestay	Khari Dimapur
14. Nepali Homestay	Sonai Nepali

In Nameri, three souvenir shops are located close to the Potasali range office. One of these is administered by the Dony Polo Mahila Samiti (a women SHG) and is situated on the grounds of the Nameri eco-camp. The other two are the Xunaru Vastralaya and Xunaru. Mrs. Oli Agarwala of the Nameri Eco-Camp began training programmes in the adjacent villages 2003. Since then, annual programmes have been held to train a new group of females. Bags, mekhela chador, scarves, mufflers, shawls, stoles, and gamusa are among the handcrafted items that Xunaru purchases

and sells on behalf of eight SHGs. Xunaru also offers pickles made in the area for sale.

The valuable handcrafted goods made by the locals need to be improved in marketing and promotion. The shortage of market demand could be a byproduct of such a scenario. It should be noted that Nameri lacks a dedicated, user-friendly informational portal that can aid in promoting local homestays, community resources, and other natural and cultural attractions. With the right marketing, local communities may profit from tourism. It might increase their standard of living and lessen their reliance on agriculture and forestry. If properly promoted, tourism can develop into a reliable source of income for the surrounding areas. The existence of certain skilled labourers in the outlying villages has contributed to the success of tourism businesses in Nameri up until this point. But there are not many of these people around. For instance, the locals need more qualified bird guides. Due to low pay or a lack of market connections, the number of weavers and artisans is also dropping. These problems might impede the expansion of tourism in the region.

Problem Inventory of the Villages

A participatory rural appraisal (PRA) was conducted for the study's community benefit. Rural appraisal and natural resource management both frequently involve PRA activities (Chambers, 1994). The participants' information was used to inventory the villages' problems. Based on their opinions, an NSL (now, soon, and later) chart was created to identify and prioritise the areas that needed interventions (Figure 8).

The chart clearly highlights the deficiencies in essential public services that the locals mentioned. As could be seen, the locals placed a high school and a hospital above all other demands. Agricultural and tourism-related requirements are among the top priorities that should be addressed soon, but they take time and effort. The locals need help with irrigation during the dry months. Additionally, they lack sufficient market connections and cold storage or warehousing facilities for their agricultural products. As a result, they cannot make a good living from farming.

Regarding tourism, the villagers emphasised two issues where proper attention by the government institutions or authorities is needed: promoting the villages' tourism infrastructure and resources and greater community awareness of tourism. They added that other challenges they encounter there include the issue of minor floods during the rainy season, a lack of public transit, and poor road conditions. They nonetheless listed them under the less important priorities.

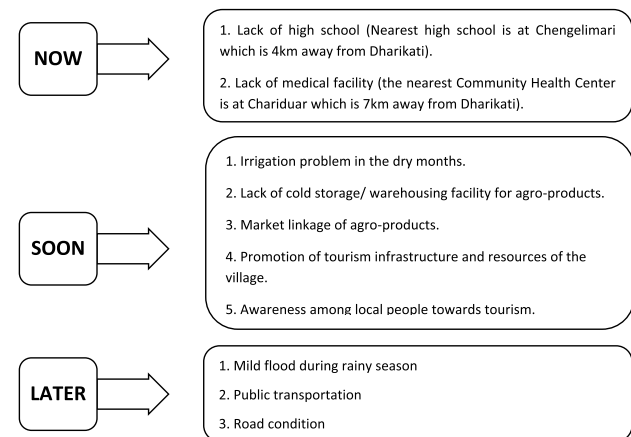


Figure 8: Prioritization of problems using NSL Chart

Potential areas for livelihood intervention

The study makes five crucial recommendations for sustainable livelihood intervention in Nameri. The first two areas relate particularly to tourism, while the third and fourth points are agro-based. The fifth area pertains to handicrafts and handloom. The authors argue that with a long-term realistic approach, efforts should primarily be focused on these areas. Success in this regard could lead to sustainability and enable the marginalised communities of the villages to survive and become economically stronger.

More thrust on rural and cultural tourism

Nameri has certain desirable qualities as a travel destination. In addition to being a natural tourist site, the area is home to numerous indigenous communities, each with its own distinct cultural identity. The Misings, Bodo, Assamese, Garo, Nepali, and Nyishi communities are among them. It elevates Nameri as a desirable cultural travel destination. The area also has potential as a rural tourism destination

because of its bucolic beauty. These opportunities remain untapped or underutilised due to a lack of awareness among the people.

There is plenty of room to apply the community-based tourism (CBT) model in the villages, especially in light of these potential benefits. The CBT model, which uses local assets to establish a sustainable tourism-based economy, may benefit the entire neighbourhood without income leakage. It will also assist in protecting forest resources by lowering reliance on forest-based livelihood. However, it will require the support and involvement of the entire community. Successful implementation will help to preserve the communities' cultural assets and traditional knowledge. It will also instil a sense of pride among the residents. The forest department and the tourism authorities have a key part to play in this. Apart from that, the success and failure of other rural or cultural destinations can provide valuable insights while planning for Nameri.

6.2. Specialized guide training programmes

The survey revealed that quite a few young people in the villages lack jobs. Most lack training and trade skills to prepare them for jobs or businesses. If sufficient training is offered for capacity building, especially for the local tourism industry, such youth could be important human resources. There is a dearth of qualified guides in the region. It could be useful if specialised guide training programmes for the local youth are organised, notably in birding and avitourism.

In Nameri, the riverbed provides a significant area for bird watching. Since bird sightings coincide with rafting on the Jia Bhorali River, the boatmen who row them are also good candidates for avitourism guide training programmes. Awareness campaigns should start at the school level to inspire young people to embrace sustainable tourism practices and the importance of the industry as a source of income. The government should seriously consider the demand for educational amenities because education always plays a positive role in preparing the youth. This requirement is due to the low level of education in the communities.

6.3. Arecanut tableware production and marketing

The survey revealed several arecanut plantations in the region. Nearly every home has arecanut trees, a significant commercial crop in Assam. A census survey was conducted during subsequent field trips to determine the total number of arecanut plantations in the area. The total plantation area in the villages was around 370 bighas (Table 4).

Table 4: Arecanut plantation in the area

Name of the village	Area under plantation (in bighas)			
	<7 Years	7-14 Years	>14 Years	Total area
Dharikati	35.00	15.50	42.50	93.00
Sonai Miri	21.00	9.50	58.50	89.00
Uttar Dharikati	26.00	26.75	88.00	140.75
Torajan/ Potasali	1.00	17.00	29.50	47.50
Total area	83.00	68.75	218.50	370.25

The villagers typically sell the arecanuts in the neighbourhood market for about Rs. 30-35 per kilogram. The arecanut leaves are typically thrown and have no economic use. However, evidence from other places shows that it is possible to make disposable plates and cups from the arecanut palm leaves, making them a potential eco-friendly alternative to plastic and polymer plates. Areca plates are in great demand, especially after lockdowns began during the Covid outbreak (Parashar, 2020). Companies like Tamul Plates Distributing Pvt. Ltd. in Assam (Aithal & Dasgupta, 2018) and Prakritii Cultivating Green in Delhi (Mansur, 2021) effectively manufacture and market tableware made from arecanut sheaths. The areca plates are recyclable, environmentally friendly, and quickly biodegradable. They may be cast into various forms and sizes and are leak-proof, light, strong, and microwavable.

Additionally, they can be used for packaging. Areca plates are also an excellent option for buffet parties or restaurants (Ecomaniac, n.d.). Establishing such a unit would greatly benefit the rural population of Nameri by providing stable employment.

Although initially unaware of this potential idea, the locals stated their willingness to gather and sell the sheaths if there was a market. A micro-market may develop if the demand for disposable tableware can be tapped, particularly in the neighbouring Tezpur

town with numerous prestigious organisations. Establishing a biodegradable sector in the surrounding area may further boost the National Park's appeal. Future possibilities include using arecanut sheaths to create packaging materials that would be sold to tourists. Additionally, this programme may change the demand for livelihoods based on agriculture or tourism. These products can be distributed to neighbouring communities to keep the prices low initially. The products can be made mandatory in the tourist camps near NNP to eliminate single-use plastics from the region. The best aspect, though, is that with a small expenditure of time and effort, such an intervention might benefit the community quickly. The entire production process can be easily executed by the women workforce. The collection of sheaths can also be done from other nearby villages. Further, if building such a unit close to NNP is not permitted, such sheaths can be gathered and delivered to firms in or outside Assam.

Sericulture

Another important finding was the ease with which the "som" tree, the host tree for the silkworms responsible for producing Eri and Muga silk, flourishes in the region. Eri and Muga silk, which is extremely valuable commercially, is mostly used to weave traditional handloom in Assam. In fact, Muga culture is native to that region, and the state produces the most Muga silk in the world (Directorate of Sericulture, n.d.). Only 11 kilometres away from Nameri in Chariduar, the Department of Sericulture of the Government of Assam also operates a Muga Food Plantation Center. Potential growers receive free seedlings from the Center. Muga and Eri Silk are essentially Vanya (wild) Silks. Even though the state produces four types of silk, Muga and Eri production is the most significant. Assam alone contributes 95% of India's total Muga production and 65% of its total Eri production (Directorate of Sericulture, n.d.). The people of Uttar Dharikati are raising silk worms presently, but they don't cultivate "som" trees since they perish in the rainy season. Undertaking measures to boost the practice of sericulture in the area could be a crucial step in the people's interest. It will require knowledge and expertise of the Department of Sericulture and constant government support.

Handloom/handicraft

The domestic handloom market is primarily unregulated. Its importance stems from providing rural residents with culturally relevant livelihood opportunities (Meher, 2022). The villages in Nameri enjoy the presence of many skilled female weavers. However, the majority of them need to be more active in the marketplace. They need more market connections to sell their finished items. It affects their bargaining power, which makes them unable to fetch fair prices for their products. Their lack of savings, rising raw material costs, and domestic responsibilities prevent them from participating in this activity. In addition, the handloom sector in India was severely hit during the COVID-19 lockdowns (Meher, 2022).

In this context, a significant push from the government and/or civil society is required to support the rural residents of Nameri and motivate them to engage in this traditional occupation more intensely. In addition to financial support, suitable marketing facilities, proper training, and affordable raw material access are crucial. Sufficient market linkage, which was found to be lacking, should be established to maintain the output. Such a market can complement the tourism industry in the area. In addition to bird watching and other outdoor activities found in nature, these products can bring more tourists to the area or at least provide them with another option as an experiential activity.

In Nameri, tourists also need value-added souvenirs. Embroidered guitar straps, passport sleeves, coasters, wine bags, and car seat cushion covers are just a few of the suggested simple keepsakes that may be manufactured utilising the Mising weaves. Since the value-added goods are only aimed at the mass tourists who want to bring something back from Nameri, they will not directly compete with traditional clothing. Contrarily, traditional clothing will satisfy the needs of specific customers who desire only authentically traditional items. Weavers can create these items in the slow tourist season and market them during the peak season. Additionally, it could benefit this industry to use online marketing strategies.

Conclusion and Recommendations

The current study provides a broad overview of the socio-economic and livelihood situation in the NNP's periphery settlements. These villages are a mash-up of many Assamese tribal and non-tribal groups. Due to a lack of economic growth and prospects for a living, the local forest communities are marginalised and deal with numerous challenges. The locals continue to live according to their native customs. The survey highlights the fact that their sources of income are not diverse. The majority still work in agriculture, and their over-reliance on this industry has contributed to their poor economic progress. Over-reliance on farming may decrease if more non-agricultural livelihood options can be supported and fostered. If efforts are correctly made, the tourism business will thrive there, given the favourable characteristics present in the area.

Due to the existence of NNP, Nameri has been primarily advertised as a natural destination up to this point. However, Nameri has significant potential to grow as a rural or cultural tourism destination. Given the importance of community relationships and cultural uniqueness in the region, it is necessary to more aggressively stress its rural and cultural elements so that tourism in Nameri may expand beyond environmental tourism. The villagers will welcome and favour such a concept since it will allow the entire community to gain from tourism rather than just a select few. Such a scheme will also aid in the prevention of any income leakage from the villages. In this regard, the authors would like to advocate for developing a long-term plan for the region by carefully taking advantage of the available opportunities. Nameri's natural and cultural riches ought to be adequately promoted, especially on online channels.

The study emphasises the value of local youth as a human resource. However, initiatives for their capacity building and skill development are necessary. Given the significance of avitourism in NNP, emphasis should be placed on youth-specific avitourism guide training programmes. The study also emphasised the possibility of creating sustainable livelihood alternatives through handicrafts, handloom, sericulture, and manufacturing and distributing arecanut plates. Weaving was discovered

to be a popular activity among the ladies. Strong market ties for their handmade products could also encourage this industry's growth. The development of weavers and artisans has been hampered, and entrepreneurship in the region has been discouraged by the lack of financial access and institutional credit facilities. Better financial access and educational opportunities are crucial for enabling the locals to engage in various activities. Acknowledging the beneficial effects of education and awareness campaigns on encouraging tourism in local areas is also important.

The development of Nameri and its people may be significantly aided by the active support of the government, NGOs, and educational and financial institutions. Any conflicts or disagreements related to conservation efforts for NNP can be reduced by a cooperative relationship between local stakeholders and the government authorities that benefits the communities and aids in poverty alleviation. In future, studies that examine the dynamics of rural livelihoods in terms of community development might also aid policymakers in developing successful household and community-level policies. More emphasis on the part of the authorities is necessary to create alternative livelihood choices in Nameri, given the issues the locals face and the challenges posed to NNP by encroachment and declining forest cover.

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