

# Assessing the Sustainability of the Settlement in Pyangaun, Lalitpur focusing on Pyang

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## Abstract

Local craft, an important intangible heritage of traditional settlements have enriched communities and local economies. One of the centuries-old crafting village of Kathmandu valley, Pyangaun is renowned for its skill with bamboo, which has long been a distinguishing element of the traditional Newari community. However, modernization has already created considerable severe impact, leading to significant change. The sustainability of traditional settlement Pyangaun has been evaluated in this study using a qualitative research methodology. The contribution of regional craftsmanship to livelihood has been emphasized. The potential of ecotourism through stakeholder participation in Pyangaun has also been explored. The socio- economic and ecotourism potential of Pyangaun settlement specializing pyang has been assessed using parameters which are determined from literature based on sustainable criteria and indicators of social sustainability as well as based on sustainable livelihood framework. The unique identity of the village, the traditional occupation of making pyang, is in danger of dying out and needs to be taken into consideration right away. This analysis may be useful in reviving the pyang tradition that will eventually lead to ecotourism.

## Keywords

sustainable community, local craft, pyang, economy, ecotourism

## 1. Introduction

To create and develop sustainable settlement is one of the major challenges of modernizing today's world and beside that to conserve and make settlement well-functioning is another great challenge. Sustainable settlements are inclusive communities which bring all dimensions of society and all groups of people including the marginalized and vulnerable. The population's social and economic circumstances have a significant impact on how the settlement develops. Traditional vernacular settlements are formed by the people living and working in them by employing the wisdom, knowledge, and practices handed down from generation to generation [1]. The characteristics like well-adapted to the geographical terrain, the society inhabiting the land, and their environmental contexts are inherent in such settlements, thus making settlement sustainable. The use of available materials and technologies and the employment of labor from within the settlements invariably contribute to sustainability.

Craft and craftsmanship plays a vital role in

community development because they help to sustain local economies and communities. Local craft is regarded as an important intangible heritage of traditional settlements. Crafts being a means of livelihood for generations, crafts have enriched communities and these aesthetics or the crafts and materials also aid to maintain identity of a settlement. The local crafts have been integral to human spaces by virtue of their sustainability and versatility as local crafts contribute to ecotourism and the socio-economic growth of communities [2].

Traditional settlements are important components of cultural heritage in terms of sustainability [3]. The traditional settlements of Kathmandu valley has its own importance and unique features. There are several examples of self-sustaining settlements in Kathmandu which are well functioning from centuries but many of them are currently in poor condition. These ancient settlement were culturally rich, economically balance, socially and ecologically sound. These settlements has change to greater extent in various aspect and have even taken on an entirely new form.

While we talk about smart cities, eco cities, and sustainable cities, ancient traditional cities are being overlooked and are suffering from the effects of modernization. Urbanization and modernization have resulted in the loss of the essence of the old settlement, the growth of unsustainable cities and settlements, and a variety of problems in addition to unsustainability. Apart from the main historical cities of Kathmandu valley, many other culturally important cities are burying their culture and local identity under the superstructure of modernity (Pyangaun Craft Village Report, 2011). One of the centuries old crafting village is Pyangaun known for its excellence in crafting bamboo, particularly in making buckets used for measurement. However, modernization has had a significant impact and has resulted in significant change. The process of change has hit the tradition of making bamboo buckets, but modernization is yet to permeate the living patterns, social formation and social hierarchy of Pyangaun. The strong social bonds are rooted in the sturdiness of community support, which has helped Pyangaun maintain its own cultural identity (Pyangaun Craft Village Report, 2011). However, the community transformation is significant, leading to the loss of its distinct and valuable identity.

This research will explore about the local resource and crafts that aid in ecotourism and the development of sustainable communities. This type of sustainability assessment will also aid in the revitalization of the ancient settlement.

### 2. Objectives

The main objective of this research is to understand the potential of ecotourism in Pyangaun specializing pyang/ bamboo and the sub-objective are listed below.

- To explore economic potential of pyang/bamboo in Pyangaun
- To assess the social potential of (local craft) pyang in development
- To explore about potential of ecotourism through local craft and stakeholder participation.

Certain research questions are set as guidelines to fulfill the research objectives.

- What is the potential of pyang revitalization and commercialization?

- Is there sufficient resources available for bamboo crafting?
- What can be done to promote and develop pyang?
- What are the social resource available for local crafting?
- How can local craft support ecotourism?

### 3. Methodology

This research is qualitative in nature so qualitative design has been used because qualitative research is concerned with exploration, experience and understanding of the complex issues. This research topic is concerned with people and settlement, people's statement, thought, ideas, participant's stories and narratives collected during data collection are used for analysis during research. Methods like snowball sampling, direct participation, observation, site visit, questionnaire survey, KII, focus group, interviews, mobile ethnography, literature review and map analysis was done for this research.

Random sampling method was used during questionnaire survey conducted with local residents of Pyangaun. 16 respondent included both male and females with adults and old aged peoples. A focus group interview was also conducted at Pyangaun including 7 member with 4 female and 3 male with 2 member who participated in pyang training held at community. Key informant included Mr. Madan Maharjan from Mahadev Yuwa Club (a community organization at Pyangun), Mr. Aman Shahi, pyang promoter from British Council Nepal, Jeet Bahadur Maharjan, a local artisan. Stakeholder mapping was prepared before going to field. The sample question was created after numerous stakeholders were listed according to their types of power and interests. Among all the listed stakeholders, during this research, interacted stakeholders were community organization member, local craft artisan, local residents of Pyangaun, architects, engineers and promoters. Stakeholders were questioned using both closed- and open-ended questions.

Based on the stakeholder, questions were categorized into three groups. Questions about pyang, bamboo products, choice, preference, and interest were posed to the local residents. Questions regarding the raw materials, the making process for pyang, issues, income generation, etc. were directed at local craft artisans. Additionally, inquiries on community

participation, enterprises, conservation, training, workshops, plans, and programs were made to concern authorities such as community club members and promoters. Attending the pilot project of Pyangaun settlement development, which was conducted out at Pyangaun by Acme Engineering College, involved both direct participation and observational study. During data collecting, exhibitions related to pyang's development and promotion were also observed. A pilot survey was done via snowball sampling in the field for data collection. Interviews were carried out including focus group and key informant interviews through semi-structured interviews, informal conversations with locals, and formal interviews with relevant organizations. Finally, the collected data and information was analyzed to generate solution and recommendation.

#### 4. Study Area

The study area Pyangaun, is located in Godavari municipality ward no.11 of Lalitpur district, 14 km south of Kathmandu. The main language of communication is Newari, which is totally distinct from Newari spoken in other areas. The pyangaun village comprises of innumerable unique characteristics. The cultural and traditional rituals being performed in the community during the birth, marriage and death are also unique in the village. The people of this village are named as Gam or Gaamal or Gaamle (Pyangaun Craft Village Report, 2011). Although Newars make up the majority of the



Figure 1: Location map of Pyangaun

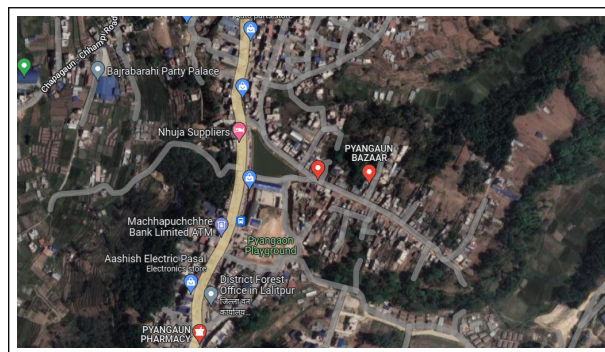


Figure 2: Study Area Pyangaun

population, Magars have recently begun to settle in the settlement's outskirts.

#### 4.1 Pyangaun - Historical Background

Anciently known as Sitapur, Pyangaun is a century old craft village (Dangol). The village was established by a Malla King of Bhaktapur who had come to Sakhu on southern Lalitpur and adopted the skill of making pyang (mana pathi) as a major livelihood option and economic stability. The village got its name 'pyangaun' from this unique profession of making little bamboo containers (pyang) used to measure grains. The settlement was also known by the name Purano Sakhu as it is believed the inhabitants of Pyangaun migrated from Sakhu, a nearby historic town located in the Lalitpur district, some 500 years ago. Inscriptions from N.S. 922-933 (1801–1811) have been discovered in pati and pauwa, which provide information about this history.

#### 5. Findings and Analysis

Socio-economic impact and potential of local craft in community was assessed and analyzed through from



Figure 3: Pyang used for measuring grains





**Figure 4:** Pyang

different parameters related sustainable livelihood framework based sustainable criteria and indicators of social sustainability. The potential of ecotourism through local craft was explored through stakeholder participation.

### 5.1 Economic potential of pyang

To explore economic potential of pyang/bamboo in Pyangaun, question based on parameter like public demand, market feasibility, raw material, skills, manpower, investment, development areas etc. were asked to stakeholders. The pyang market is insignificant as public choice and preference was great towards the use of industrial products rather than locally available pyangs. Due to modernization, the local people were also less interested in making pyang product. Both the supply and the demand are very low. In the past, people uses the pyang for a variety of domestic purposes, including storing grains, food, spices, and even medicine. But now, pyang is currently on the verge of extinction. Certain people seem interested in buying it due to artistic value rather than using it for house old purposes. From business perspective, this is a positive aspect which can be beneficial for revitalization and commercialization of pyang.

The production of pyang is environmental friendly because it uses natural bamboo and basic tools and procedures. The local people of pyangaun utilized the local raw material bamboo and self-traditional skills for making pyang. During past days, the farmers and workers even used to cross the Bagmati river to get to the Chure trail in the Makwanpur district in the south, where they used to bring the quality bamboos from nearby villages. The availability of raw materials and skilled labor is currently declining for a variety of

reasons. There are just two locals who make pyang in the villages: Maan Bahadur Maharjan and Jeet Bahadur Mahajran. Beside them, other few locals are present who are knowledgeable and skilled in creating pyang but are not involved in manufacturing. Rameshor Maharjan, a local, made pyang exclusively for his own use because the market was unfavorable.

At present the situation is quite challenging and the issue is now rather difficult because there aren't enough resources available, but if community members are interested in making pyang, it can be boosted in a number of ways. The Mahadev Yuwa Club, a local community organization, is very interested in this pyang and is helping the villagers promote it. They participated in the Pyang traning Program and held workshops where locals were invited. They also intend to give the villagers the primary raw material for creating pyang, which is bamboo (hapa). Hapa are the bamboo sheets or extracts that are used to shape and create containers like pathi and mana. According to pyang maker Jeet Bahadur Maharjan, there is not enough hapa, the raw material needed to manufacture pyang, and it is not cost-effective to make pyang from bamboo that is purchased. There are few areas where we can see the bamboo plants, mostly in private backyards and on a very small number of public lands. As a result of increased awareness, individuals are preparing to supply their own bamboo to pyang manufacturers as raw materials. These kinds of activities will support the local economy and help the settlement become greener.

In the past, there was a good market as pyang used to be sold in nearby communities and also in villages Godawari, Pharping, Bungamati, Bhaktapur, Panauti and Banepa. Craft items were used for bartering with grains and food. During trading of pyang, people used to receive exact full buckets of grains particularly rice in exchange of selling pyang. Local people of Pyangaun used to export pyang to Japan in the past. Since 1994, the villagers had stopped producing and exporting pyang after a Japanese importer had suggested that the design be enhanced and modified with fine finishing, which the locals had failed to execute. Pyang International Trading was discontinued and shut down for this reason.

This pyang-making tradition may be a fascinating low-investment enterprise that also aids in economic development. When compared to other businesses, this Pyang business doesn't require a lot of funding or

investment. The great aesthetic value of Pyang products makes them candidates for international markets. Evidence suggests that workers once walked to neighboring districts like Makwanpur, Chitwan, Gotikhel, and Sankhu to gather bamboo. Therefore, if people wish to grow their pyang business and commercialize, they can now simply import raw materials from distant locations using automobiles.

## 5.2 Social potential of pyang

The social potential of pyang was assessed through different parameters like employment, community participation, women participation, youth participation, training, expertise, skills, knowledge, awareness etc. The majority of the locals of Pyangaun who were interviewed on-site during site visits appeared uninterested in using or producing Pyang. This was due to accessibility of various types of industrial household goods and the modest profit made after selling the pyang. A workshop was conducted in 2021 by Mr. Aman shahi and his team at Pyangaun in community hall whose idea was supported by The Road to COP26 innovation grant program. Aman Shahi is a designer who specializes in Pyangaun traditional art and works to preserve the disappearing pyang culture by empowering women and youth. Experts from the community were invited to the session to give the locals free training. Participants practiced both bamboo handicrafts and paper modeling. Professionals from the community discuss ancient methods of manufacturing bamboo while Mr. Shahi's team presents brand-new concepts and items, such as a vessel for making momo in addition to mana and pathi. They are currently working on producing a variety of products, including decorative items and logos, name plates, carved from bamboo. The event was well conducted and the locals were pleased to participate in the hope of finding employment prospects in the future. The workshop targeted more the young generation but the women participation was extremely low. These workshops have not only provided training to those who are interested in it, but they have also raised public awareness about the importance of sustainable traditional local craft and practices. Apart from workshop, recently in August 2022 Mr Shahi works were exhibited in Nepal Art Council with the support of British Council with Kathmandu University for the promotion of the Pyangaun, pyang and bamboo products.

## 5.3 Potential of ecotourism through local craft and stakeholder participation

From indigenous people, language to rituals, Pyangaun is remarkably different than the other Newar villages in the adjoining areas which has rich cultural values (Pyangaun Craft Village Report, 2011). Apart from pyang tradition in Pyngaun settlement, a large triangular pond at the entrance to the village, its narrow alley, old traditional newari houses, ancient temples, sattal, monuments add potentials to develop ecotourism. This pyang culture is one of the sustainable approach for utilization of local resource and local craftsmanship. The community holds a distinctive identity as a maker of pyang. The settlement of Pyangaun is rich in cultural and traditional significance too. The unique identity of making pyang which is not found in other place makes it special add value of the place. Additionally, revitalizing the pyang and fostering its development, promotion, and preservation could help to promote ecotourism. One of the income-generating activities is local bamboo crafting that can be developed to improve the standard of living.

The market for pyang businesses is now small and constrained, but it can be expanded in a number of ways. The local residents will benefit from the growth of the pyang market in a number of ways, including employment opportunities in the bamboo planting and harvesting industry, handicrafts trading, and skills training activities. Pyang making culture is environmentally friendly and supportive of ecotourism, from historical significance to revenue generation to biodiversity preservation. In June 18 202, the pilot project, was carried out in Pyangaun by Acme Engineering College. Acme Engineering College collaborated with Story Cycle and the British Council-Nepal, with a vision to scale 'Our Dream City' campaign. To members of the community, a design proposal was made with an emphasis on ecotourism and local economic development. The community was informed of the aspects promoting ecotourism, such as the construction of homestays, area development and conservation proposals. It was a good idea to incorporate a building museum and a bamboo training center in the design plan because Pyangaun's unique bamboo craftsmanship gives the city its distinctive identity. If the distinctive characteristics are revived, preserved, and promoted, tourism could be improved.

### 6. Discussion

The findings from this research shows that there is potential of pyang revitalization and commercialization, as the pyang and Pyangaun settlement both holds a significant place. Few community leaders, local artisans and aware stakeholders are also seen interested to revive this pyang culture and grow tourism but the despairing part is local residents are very less interested towards it and the higher level bodies like ward and municipality are seen not so much supportive. So, this reviving and commercializing tasks seems to be very challenging.

However, if people attempted, it appears to be a success since the community has the necessary social and human resources. Only the financial resources and market platform is lacking. Increasing people's knowledge of local crafts and providing them with training and workshops will help preserve pyang tradition and boost the local economy. Making pyang is a traditional local craft that meets all sustainability requirements in terms of social, cultural, economic, and environmental factors. Additionally, it meets the criteria of ecotourism, such as interest in nature, low impact, benefits to local, and cultural preservation. As a result, ecotourism benefits and its potential are increased. However, the main task here is to restore back the vanishing unique identity of Pyangaun.

### 7. Conclusion and Recommendation

At present scenario, the lack of market, less interest of locals, lack of raw materials are some of the hindrance to revive pyang tradition but the activities like training program, availability of expertise, low investment economic business are the positive factors which shows the economic potential of pyang/bamboo in Pyangaun. The revive of pyang and its commercialization activities can help to provide employment opportunities and boost the economy as well as living condition of community people. Likewise, the social resources and capital like manpower, knowledge, awareness etc. are also scarce in community but it can be increased by several ways and increase the social potential of pyang in development. Local resource utilization, production of sustainable products alternative to plastic products, active participation of youth in training programs, high interest and involvement of stakeholders like community leaders, promoters, researchers and higher

bodies like NGOs in pyangaun settlement and pyang are increasing the potential of ecotourism in Pyangaun.

Pyangaun has its historical significance due to its origin, rich socio-cultural importance and on the topmost distinctive pyang tradition. Although still active, this sustainable kind of traditional craft is on the verge of disappearing. Initiatives, training, and programs to raise awareness of this distinctive local craft appear to be insufficient in the community. So, to enhance pyang initially people must be educated about the importance of this valuable tradition and ecofriendly products. People should be provided with free trainings about pyang making. Youth and women should be encouraged more. People can further engage in pyang business and bamboo farming activities. Live demonstration, advertisements and exhibition can be done to promote pyang and Pyangaun.

In addition to the development of pyang, the communities' open areas, paths, ponds, old homes, temples, and monuments can be restored and developed to attract more tourists. Bamboo training center, museum, library, home stays developments etc. within the settlement can be a supporting development areas for ecotourism as well as to develop Pyangaun as craft village. Apart from making pyang, bamboo can be extensively used in other sector like constructing physical structures and furniture as bamboo is fast growing, eco-friendly and sustainable. Pyang can play a vital role to support the livelihood, culture, identity of Pyangaun settlement. So active community participation and aid from government bodies can be beneficial to develop pyang and ecotourism in Pyangaun as well as to achieve sustainable social development.

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