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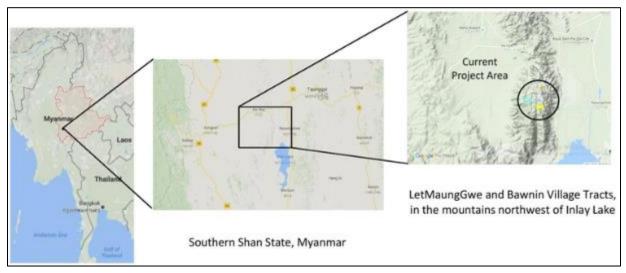


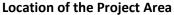
1. Introduction

1.1 Project Background

In partnership with the International Centre for Integrated Mountain Development, (ICIMOD) the Myanmar Institute for Integrated Development (MIID) has implemented the Himalica Project in Southern Shan State, Myanmar. This action was part of an intervention of the EU-funded Rural Livelihoods and Climate Change Adaptation in the Himalayas (Himalica) programme.

The project area consists of six villages in two hilly townships of southern Shan State, Inle Lake region: Zeyar Village from Bawnin Village Tract, Kalaw Township; and Pantin, Thayetpin, Kyaungnar, Kyaungtaung and Enpak Villages from Let Maung Gwe Village Tract, Nyaung Shwe Township. The precise location is 96' 45'00" to 96' 55'00" North Latitude 20'36'00" and 1200-1500 meters above sea level. Hills dominate the topography with moderate to extreme sloping and forest trees are scarce.





The ethnic group known as "Taungyoe" settled in this area approximately 100 years ago. The main livelihood activity is farming; a mixture of subsistence and commercial farming predominately on sloping land. The majority of households (70 percent) have access to less than two hectares of marginal and submarginal land.

Farmers produce mainly five groups of crops: cereals (upland rice, wheat and maize), oil seed crops (groundnut and niger), pulses (pigeon pea and rice bean), spices (ginger and turmeric) and vegetables

(butterfly bean, sugar snap pea, cucumber, cabbage, cauliflower, chillies, tomato and mustard). Although¹ crop production is in subsistence agriculture, it intends not only to fulfil the household food security but also to earn farm income from the marketing of products. The main crops intended for marketing purposes are hybrid maize, wheat, ginger, vegetables and pigeon pea.

Water scarcity is one of the most significant factors hampering the opportunities of these communities to assure their own food security and other aspects of their livelihoods. The shortage during the summer season is significant and fetching drinking water problematic due to distance as there is a lack of water availability.

Villages are isolated due to poor accessibility from the two main existing roads, one connecting to Heho and the other to Nyaung Shwe. Poor transport facilities also hamper the access to technology, services and information in all aspects of livelihoods. The Himalica project aimed to support the livelihood opportunity activities, through sustainable management of the natural resources and value chains actions of mountain products which can contribute to the mitigation and adaption of socio-economic and climate changes. The four-year project interventions focused on the development of good practices in sloping land agriculture and water management leading livelihood improvements of the Taungyoe communities.

Farm activities alone that tend to farm income cannot solve the living requirements of the households. Therefore, this project also provided opportunity for farmers to learn and produce bamboo handicrafts that lead to earning the villagers non-farm income as extra income. Farmers keep small amounts of bamboo on homestead farms near their homes, mainly for household consumption as building materials, wall sheets, mats and baskets. Before this project, few villagers were processing bamboo into value added products, such as baskets and mats. Although they are now producing bamboo products, their marketing volume is comparatively small.

Intending to increase income and to improve livelihoods of the targeted households, initially MIID focused on consultation with the community to create a bamboo handicraft business as small household enterprise. With the active interest of the farmers, MIID conducted the basic craft training, advanced craft training, finishing training and business development training, relating to make and sell bamboo products. Simultaneously, MIID also focused on value chain research and market research in order to assist farmers get a foot hold in the handicraft market in Myanmar. MIID coordinated and facilitated the market linkages for the craft makers (sellers) and the agents (buyers) in order to obtain reasonable prices for the handicrafts, leading to a sustainable market balance between the participants. Starting from this project through to September 2017, the bamboo sales of the craft makers amounted to 13,843,100 MMK, providing a significant additional income to the farmers.

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Value-added product upgraded trainings and market research are still necessary for the farmers to ensure a sustainable local market and to enter the international market for long term continuity.

2. Bamboo Value Chain

2.1 Overview

Bamboo has been widely known as the "poor man's timber" or the "Green Gold" in Myanmar, due to the fast growing and easy regeneration characteristics of bamboo. It has important direct and indirect basic necessaries of the households, such as providing shoots for food consumption, culms for buildings, furniture and handicraft products for household use items and contributing to soil and water conservation. Bamboo can play an important role in the reduction of wood consumption and the protection of forest and environment. Therefore, it has a great potential in contributing to poverty alleviation and sustainable development of the rural economy.

Myanmar accounts around 102 species of bamboo and 18 have been identified as commercially important by International Network for Bamboo and Rattan (INBAR). The processing of bamboo in Myanmar is mostly traditional. Techniques and the market have not been well developed and therefore its potential is still unseen. Bamboo has been classified as minor forest product and was previously neglected in Myanmar.

Although Myanmar has a great potential in the bamboo resource, with approximately 5.4 million acres of forest bamboo (2010), the total return is comparatively insignificant accounting only 695,234 million MMK (data from the Forestry Department, 2014).

The exports of raw bamboo (culms) have gradually been increasing since 2005, from 1,149 million culms in 2005 to 1,346 million culms in 2011, representing a growth of 26 percent in five years.

2.2 Existing Practices of Using Bamboo

In the project villages, bamboo is found in the forest area and in homestead yards. More than one third of the households have already a form of bamboo plantation in their homestead yards, mainly established by their parents or grandparents. The average numbers of bamboo culm occupied per household is 80 to 120 and the bamboo shoot growing around the clump in the home yards is never cut off. According to the findings of Forestry Department, it should be noticed that local people consumes 120 culms of bamboo per household per year. Around 50 percent of the bamboo plants are infected by a pest, the stem borer, resulting in losses of large amounts of raw materials or early damage in bamboo market is limited. In the project area, bamboo has been mostly used for home consumption as building material, fencing and farming tools.



2.3 Bamboo propagation

Although the bamboo plantations have been established for many years, some households tried to cultivate a limited number of bamboo species in their homestead yards. However, farmers were not aware of the value-added products and the high potential of bamboo market. Farmers are interested in bamboo cultivation, but there is a lack of knowledge about suitable species for cultivation, technical know-how for production of planting stock and plantation methods. The most commonly used traditional propagation technique for bamboo is rhizome propagation or offset propagation.

2.4 Bamboo Processing in the Old Traditional Style

In the project villages, all bamboo products are made by hand and bamboo is still being used in the old traditional style. Normally bamboo processing is done into the following four main product groups:

- (a) Bamboo strips making
- (b) Bamboo Buildings
- (c) Bamboo Weavings
- (d) Bamboo Shoot Production.

(a) Bamboo strips making

In the project villages, there are a number of people involved in the bamboo strips making and the income from the sale of bamboo strips is a source of household income in the off season. For many people who are socially and economically disadvantaged like landless, older people and disabled persons, the income from the sale of bamboo strips is at least some source of income during summer.



(b) Bamboo Buildings

The village members employ the traditional methods of using bamboo to build houses. Bamboo poles are also used as foot bridges over creeks and rivers in the rural areas. Three-year-old bamboo culms are mainly used for building purposes and small bamboo culms are also used in making bamboo fences.

(c) Bamboo Weavings

Job opportunities are very limited from February to April in the project area. At that time, some farmers are involved in the bamboo weaving business. The culm of bamboo is hard and tough however it is easy to be cut into strips for weaving. Through cutting, node removing, scraping, splitting and other operations, bamboo strips and threads are produced. Using these strips and threads, craftspeople can weave out various bamboo crafts by hand such as bamboo mats, walls and baskets.

(d) Bamboo Shoot Production

Bamboo shoots are mainly collected in the village forests by women and children in the rainy seasons for their own consumption and small-scale marketing. The villagers have to travel longer distance for bamboo shoot collection. They can collect not more than 10 viss per day. During one rainy season, approximately only 60 days are effective for bamboo shoot collection; 20 days for bamboo shoot processing and 20 days for marketing. The average sale of bamboo shoots per household per person (four to five months) is about 400 viss. The nature of collecting bamboo shoots is simple; shoots are cut with a knife when grown about 5-20 cm above the ground, depending on the species. The shoots are collected and transported in baskets (up to 10 viss) to the village. On the same day, bamboo shoots are boiled and shredded, as fresh bamboo shoot final product. Villagers do not have experience in preserving bamboo shoots, not even the simple salted preservation methods used in other areas.

In essence, although this bamboo processing of the old traditional style could earn some income to assist and help for the subsistence living requirements of the households, there is not sufficient production or income to escape from the cycle of poverty.

2.5 Myanmar Institute for Integrated Development (MIID) Project in Taungyoe Communities

The Myanmar Institute for Integrated Development (MIID) implemented the Himalica Project from 2014 in this project area. At the start of the project, MIID focused on value chain assessments of ginger as a farm business and bamboo handicrafts as a non-farm business in order to increase income and improve livelihoods of the Taungyoe households.

In the project villages, prior to the project interventions, bamboo handicraft making was limited to basic baskets and mats. Products were generally of a relatively low-quality. The value chain assessment conducted by MIID recommended improved product designs, establishment of bamboo handicraft producer clusters to promote collective sales, transportation, information sharing and market linkages. The final outcome has been to increase the income leading to livelihood improvement of the villagers.

In January 2016, the first batch of training was attended by 30 participants (16 men and 14 women). The participants learnt how to produce many value-added bamboo products including flowerpots, cups, trays, toys, teapots, ashtrays, phone holders and water jugs.

The second training advanced the coverage by engaging 53 participants in total (32 men and 21 women) across the six villages. Follow-up training was conducted in August 2016 on product quality which covered aspects such as finishing, polishing, varnishing and treatment to prevent fungus and preserve the bamboo. MIID has since continued to provide direct support to participants for market linkages, packaging and transportation.



Bamboo Handicraft Training Bamboo Handicraft Training

Formal marketing training was held in February 2016, with co-funding from Winrock International. The MIID team engaged "Thirimay Women Development Co-operative" to present the training. The training was delivered to 64 participants (32 men and 32 women). The marketing training was held in two sessions, with three villages attending each session. Two trainers facilitated the training with support from the MIID Project Officer and project team. Livelihood Development Groups were created with the support of MIID which include the bamboo handicrafts makers. The groups provided the space to transfer knowledge and problem solve on issues related to livelihoods, for example the methods to improve the quality of the bamboo products.



The Bamboo Handicraft men at their work

A "Women's Bamboo Handicraft Training" coordinated by MIID and funded by ICIMOD was held from 16 to 31 May 2017 in cooperation with the Small and Medium Enterprise Department from the Ministry of Agriculture, Livestock and Irrigation.



Women's Bamboo Handicraft Training

The Deputy Director from the Department, Shan State, presented a motivating opening speech. The Deputy Director expressed his welcome and encouragement to the women trainees. There were 40 participants (2 men and 38 women) attending the training.

A "Bamboo Handicraft Upgrade Training" funded of ICIMOD was hosted by MIID and the Forest Research Institute at the Kyaung Nar monastery of Let Maung Kwe village from 23 to 26 June 2017. Thirty-eight participants (27 men and 11 women) attended from six villages. In this training the participants learnt finishing techniques and how to improve the quality of bamboo handicraft and to reduce cracking and fungus. Moreover, the participants learnt methods to upgrade and innovate the products in order to enter the domestic market and foreign market successfully.

A further "Taungyoe Literature and Culture Association Bamboo Handicraft Training" was hosted in Taunggyi on 21 to 30 August 2017. There were 78 participants from Taungyoe, Pa O, Da Nu and Shan communities attending the training. In this training, the trainers were the three handicraft makers from the MIID project intervention site.

Since the commencement of the training, 33 bamboo handicraft makers have been engaged in this activity. Handicrafts produced include kettles, cups, trays, bowls, tealeaf bowls, water bottles, food carriers, vases, beer mugs, stationary container boxes, tissue boxes and clocks.

The total income amount derived from bamboo crafts since the training commenced equates to 13,843,100 MMK (calculated at the end of 2017). A total of 155 orders have been recorded from multiple locations across Myanmar including Yangon, Mandalay, Nyaung Shwe, Taunggyi, Pyin Oo Lwin (Mandalay Division), Naypyidaw, Bogalay (delta area), Shwe Bo, Sittwe (Rakhine state), Minpya (Rakhine state) and Bagan. MIID have supported linkages to a range of customers including individuals, restaurants owners, regular stores and market stalls. Thus far, orders indicate that cups, stationary container boxes, tealeaf bowls and trays are the most popular products.

In the trainings, MIID provided the tools and equipment of craft making for the training participants. After the trainings, the participants became craft makers and were able use these tools and equipment in their individual craft making business. The overall activities of the MIID project relating to value chain bamboo handicraft included the provision of training, providing tools and equipment and linking to the potential markets by coordinating and facilitating among agents (buyers) and sellers (craft makers).

Additionally, MIID sought bamboo experts from the Forest Department to provide training relating to cultivation techniques, pest and disease control, maintenance of bamboo plantation. The Forest Department conducted the trainings regarding the bamboo nursery development, propagation methods and other forestry training in the bamboo value chain processes.

(a) Bamboo Nurseries

Nurseries were established in each village in May 2015. Ten new bamboo pest resistant varieties were distributed to all households in the project villages. Participants engaged with the bamboo consultant to learn land preparation for establishing a bamboo nursery, horizontal bamboo propagation, hormones for root development, duration of cutting for germination stage, transplanting seedlings to field.

(b) Bamboo Propagation

This training provided demonstration and discussion of four methods of propagation to the villagers, these included the following:

- i. **Vegetative propagation** (branch cutting including wrapping method) between 10-20 seedlings can be received through this method.
- ii. Vegetative propagation (stem cutting) approximately 5-10 seedlings can be obtained through this method.
- iii. **Seed-based propagation** The bamboo flowers perish after 20-60 years; therefore, annual seed availability is limited. It was demonstrated to the farmers how the seeds could be gathered quickly, and affordably before seeds are interfered by rodents/pests.
- iv. Rhizome transplanting (also called off-set planting) This method can be difficult as the right bamboo stem must be extracted from the cluster of bamboo, and must be done carefully not to disturb the rhizome buds during removal. Participants learnt that separation and planting should occur before the rainy season when the nutrient reserves are at their peak, which provides the best chance for the new roots to establish. If rhizomes are collected late and planted during rainy season the bamboo is likely to fail.

Specific recommendations included enhancing the technical know-how for processing bamboo with a market-oriented approach, whilst improving sustainable resource management of bamboo to reinforce the important ecological contributions this plant provides to the wider ecosystem.

During the project time, the MIID and the Forest Department are the triggers, the bamboo handicraft makers are the uptakers and the agents/traders (buyers) and individual consumers (buyers) are the drivers in the value chain model as shown in Figure 1.

Initially, MIID encouraged the craft makers to run along value chain. The Forest Department also encouraged the craft makers to participate in the forest trainings such as bamboo nursery development and propagation methods. Without these triggers or starters, the business could not have succeeded. The drivers are the consumers including both agents and individual consumers as they pledged to the actors along the chain and at the end or destination point of the chain. Producers or craft makers are known as uptakers because they received income and benefits by selling their handicraft products.

In the long run, the expectations are that the agents/traders (buyers) will help the craft makers in areas such as providing capital, tools and equipment for the business, giving cash in advance, so that they will become triggers in the value chain model. The craft makers themselves are also triggers as they have to encourage themselves to achieve success in their bamboo value chain business.

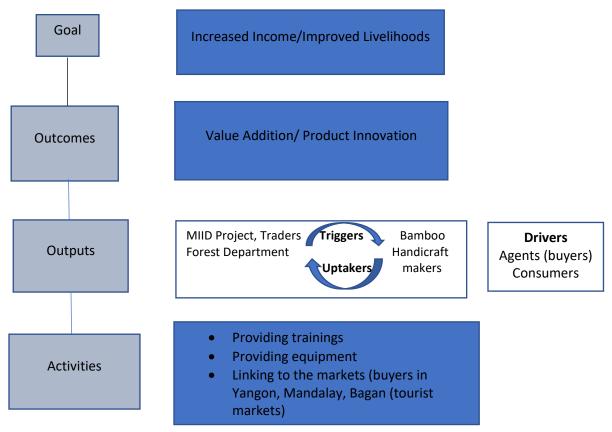


Figure 1. Value Chain Business Model of Bamboo Handicraft Production in Myanmar

2.6 Participation in Trade Fairs

MIID led the craft makers to participate in trade fairs in order to gain increased knowledge and experiences plus gain additional income.

On 29 December 2016 to 4 January 2017, with the coordination of the MIID team, six villagers participated and sold bamboo handicrafts at Bagan Trade Fair. On 9 to 10 January 2017, the MIID team assisted the villagers to display bamboo handicrafts at Mandalay Trade Fair. On 12 to 13 January, the MIID team and six villagers displayed bamboo handicrafts at the trade fair in Diamond Plaza, Mandalay which was organized by the Union of Myanmar Travel Association.

From 8 to 10 February 2017, the Forest Department featured bamboo handicrafts in Tauanggyi which had been produced from the MIID project. This promotion brought about new business opportunities for the Let Maung Kwe craft makers and was a tremendous help in raising the profile of the work being done. On 10 February 2017, bamboo craftsman travelled to Mandalay to participate in another trade show and sell their products. Unlike previous trips, this trip was led by the craftsmen themselves without the help of MIID. By working together to promote their work there and at similar events, the participating craftsmen can help to raise the business for all craftsmen in the village.



On 11 and 12 February 2017, bamboo crafts were displayed in the Environmental Education Center of Nyaung Shwe. Several craft makers from the villages joined the event. Moreover, artisanal craft makers from outside the project area doing honey, water hyacinth weaving, bamboo crafts and other commodities were invited to join. The head of the Nyaung Shwe Hotel Association and the manager of the new Nyaung Shwe night market also attended and expressed enthusiasm for further promoting the bamboo crafts among their constituents.

On 17 to 19 September 2017, with the coordination and leadership of MIID team, the bamboo handicraft makers participated in the bamboo trade show in Yangon and sold their bamboo crafts. The "World Bamboo Day" ceremony on 18 September 2017 was a highlight of the three days with craft makers receiving mention and appreciation of their ongoing commitment and improvement in the area of bamboo promotion.

3. Stop- by Interviews and Discussion with Craft Makers

On August 2017, whilst monitoring in the project villages, the MIID team met U Lin Yaung who is one of the successful craft makers at his house making bamboo handicrafts and the other two bamboo handicraft makers: U Wine and U San Mya there.

The team asked the handicraft men the following questions:

"How are things changing with advert of the MIID project? Where did you learn how to make bamboo handicrafts? What did you do before the bamboo handicraft business? What kind of labour you usually do in the off season?"

"We attended the bamboo handicraft training conducted by MIID. In the first training, MIID hired U Kyaw Zay Ya, bamboo handicraft technician from Inlay Lake. We attended that training for nine days first to learn how to use bamboo effectively to make crafts and for two days to learn how to polish the products to become final products. Then, MIID hired a bamboo handicraft technician from Naypyitaw. We attended that training to learn how to make bamboo handicrafts free from fungus by using steaming and boiling method and; using Hydrogen Peroxide method. Before bamboo handicraft business, we usually did farm labour in Inlay and Nyaung Shwe; and we got 3,500 MMK as daily wage. We normally do carrying the paddy."

"How has your life changed because of the bamboo handicraft business? What are you using the money (the money getting from bamboo handicrafts) for? Because of having the extra income of bamboo handicrafts, is there any changes in your food consumption and purchasing food from the market?"

"We were struggling for our subsistence living requirements and our life was hard. Now, we feel comfortable and contented, and we are not struggling too hard to earn money because we can make bamboo handicrafts. We are using the earned money for food, clothing, shelter, repairing motor-bike, fertilizers to use in the farms and for paying labour wages etc. We can buy more rice from the market because of the extra income".

"Do you cultivate rice? Do you buy rice from the market? Is there any other food and other items you now have as a result of having extra money? Where did you get other food from aside from rice? Has the consumption of meat increased?"

"We usually cultivate the rice, but it is not enough for home consumption. We also buy rice from the market. We can buy cooking oil, salt and household items as a result of having extra money. We bought meat for consumption. We grow vegetables near the house and we don't need to buy vegetables for daily food consumption. We can eat more meat. We can buy pork, chicken, fish and dry fish more."

"Do you feel happier to spend more time at home instead of going to the villages to work? Do you make your business yourself or do you involve other people in your family? Tell me about it. What do you do and how does your wife assist?"

"We feel happier as I do my own bamboo handicraft business at my home. My wife and I work together in making bamboo handicrafts. I usually make the raw crafts and my wife polishes them to become final and complete products."

"How many hours a week do you spend working on your bamboo handicrafts? How many items you produce within 10 hours working time? Before this started, MIID begins training a year ago. Did you believe that you could make money from the bamboo products a year ago?"

"I usually spend 10 hours a day if I do not have to go to the farm. I can produce 10 cups during 10 hours working time. We did not believe that we could make money from bamboo products before the bamboo trainings of MIID."

"How much did you get from bamboo before bamboo handicraft makings? How much can you make a day now? How many hours did you previously spend on the bamboo handicrafts?"

"We got 2,500 MMK per day from making bamboo strings before the bamboo handicraft. I can make 8,000 MMK per day now. We spent 10 hours a day in making bamboo strings to get 2,500 MMK."

"You make so much money now. Why do you still work so hard? Do you feel satisfaction because of bamboo handicraft making?"

"I want to get more money. Yes. I feel satisfaction because of the bamboo handicraft making. For example, I got 15,000 MMK for one lamp. If I have 30 lamps ordered and if I finish 10 lamps, I feel that I get 150,000 MMK ."

"Do you have work pressure? Do you link with other villagers in the village and another villages and talk to them to share the pressure? Are you happy to link with them?"

"Yes. I have work pressure. I have to finish orders within the limited days. Yes. I link with other villagers in the village and another villages. We share the work pressure and work experiences. If I cannot finish to meet with the orders, I share my works to other craft makers to finish the orders in time. Yes, I am happy to work with them."

4. Bamboo Sales Continue to Increase

There have been significant achievements in terms of increasing the farmers' incomes through valueadded bamboo products. The following table illustrates in detail the income received from subsequent sales of their own products since their participation in MIID bamboo handicrafts trainings last year up to September 2017. According to the innovation of the craft makers and market demand, some orders of new beer mugs, clocks, tissue boxes and stationary container boxes are well received while trays and cups remain popular products.

The main agents (buyers) are Dar Doe Pyi Shop, Moe Moe San Shop (Bogyoke Market) and Waddy Khaing Shop in Yangon, U Sai Pyae (Pink Shop) and Soe Yadanar (Zae Cho Market) in Mandalay and Win Family and Bagan Thar in Bagan.

No	Village	Name of Maker	Cash amount (MMK)
1	Pan Tin	U Tun Shwe	370,000
2	Pan Tin	U Mg Yoe	490,000
3	Pan Tin	U Ni Soe	150,000
4	Pan Tin	U Kyaw Wai	630,000
5	Pan Tin	U Mg Myae	195,000

Table1: Income received from bamboo sales through September 2017

6	Pan Tin	U Mg Kin	270,000
7	Pan Tin	U Ba Maung	40,000
8	Pan Tin	U Thein Phay	30,000
9	Pan Tin	U San Kyaw	60,000
10	Pan Tin	U Tun Phay	95,000
11	Tha Yat Pin	U Thein Win	505,000
12	Tha Yat Pin	U Tun Yee	528,000
13	Tha Yat Pin	U Tun Aung	81,000
14	Tha Yat Pin	U San Lin	35,000
15	Tha Yat Pin	U Tun Saung	60,600
16	Tha Yat Pin	U Yowl	40,000
17	Kyaung Nar	U Kyaw Hoe	610,000
18	Kyaung Nar	U Ah Oho	105,000
19	Kyaung Nar	U Wain	1,550,000
20	Kyaung Nar	U Lin Youn	1,805,000
21	Kyaung Nar	U San Min	1,320,000
22	Kyaung Nar	U San Mya	401,000
23	Kyaung Nar	U Kyaw Wai	15,000
24	Kyaung Nar	U Tun Shwe	61,000
25	Kyaung Nar	U Mg Shwe Toe	59,500
26	Kyaung Nar	Daw Ah San	25,000
27	Kyaung Nar	Daw Ma Koe	15,000
28	Kyaung Nar	Daw Shwe Man	40,000
29	Kyaung Nar	Daw Phyu Aung	25,000
30	Kyaung Taung	U Kyaw	200,000
31	Kyaung Taung	U Pont	320,000
32	Kyaung Taung	U Tun Lay	95,000
33	Kyaung Taung	U San Ba	225,000
34	Kyaung Taung	U Wa Ei	590,000
35	Kyaung Taung	U Ah San	485,000
36	Ze Yar	U Yoe	1,450,000
37	Ze Yar	U San Win	226,000
38	Ze Yar	U Kee Tu	328,000
39	Ze Yar	Daw Khin Mar	16,000
40	En Pak	U Phay	212,000
41	En Pak	U Aung	85,000
	Total cash am	13,843,100	

5. SWOT Analysis on Value-added Bamboo Handicraft Business

Value-added bamboo handicraft business is analysed according to the strengths, weaknesses, opportunities and threads (SWOT analysis) in order to be sustainable for the long run future.

Strengths	Weaknesses	
• Need low capital investment and high ratio of	Inconsistent quality	
value addition	 Inadequate market study and marketing 	
Cheap labour costs that results in a	strategy	
competitive price	Capacity to handle the orders	
Potential market	Lack of adequate infrastructure and	
Increasing emphasis on product development	communication facilities	
and design innovation	Inadequate information of new technology	
Handicrafts have various applications	and current market trends	
Business provides potential source of	Lack of coordination between government	
employment	bodies and private players	
Opportunities	<u>Threads</u>	
 Raising demand for handicrafts 	Competition even in domestic market	
Development of domestic and international	Difficult to enter the international market	
tourism sector	 Balance between demand and supply 	
Distribution channels (e-commerce and	Consistent quality products produced by	
internet) are emerged to direct markets	other regions	
Development of sectors/ industry/ business	Requirements of better packaging	
such as retail, real estate, hotels, fashion		

6. Conclusion

Bamboo crafting was limited to basic crafting of basic items such as baskets and mats prior to the project activities on handicraft making commenced. Products were generally of a relatively low-quality bamboo items and were interested in holding social enterprise trainings. The Value Chain Assessment commissioned by MIID recommended that training focus systematically on improved product designs, marketing and establishing bamboo producer groups to promote collective sales, transportation, information sharing and market linkages.

Bamboo training began with intensity in 2016 and continued in 2017. Throughout 2016, MIID held a number of bamboo handicraft trainings taught by bamboo master craftsman Kyaw Zay Ya, and MIID's consultant, Dr. San Win from Yezin Forestry University, instructed villagers in different methods of bamboo propagation and cultivation. Thirimay Women Development co-operative provided training in marketing and basic economics, and facilitated interaction among the villagers. The craft makers also participated in trade fairs in Bagan, Mandalay, Nyaungshwe and Yangon where they gained an improved understanding of bamboo handicrafts market linkages and showed off their products to interested buyers. Future trainings will address handicraft quality and finishing in particular. Bamboo handicrafts made by the villagers were also promoted by posting on social media which assisted in sale facilitation of the products.

In 2017 MIID coordinated product upgrading and market linkage activities between bamboo trainers and craft makers as well as the agents (buyers) and craft makers leading to balance or win-win situation between supply and demand actors. In essence, MIID believes that intervention to establish bamboo handicraft business had been successful in advancing the goals of increasing incomes by improving the agricultural skill set of smallholder farmers and connecting them to profitable markets.

The 2017 season saw fast growth of MIID's bamboo handicrafts initiative, with enthusiastic villagers showing creativity and entrepreneurial promise, and buyers confirming the market demand by seeking out connections to these craft makers. Bamboo handicraft selling has increased and the project team also provided full assistance to villagers to promote the craft value chains by displaying the crafts at a trade fairs. Moreover, with the coordination of MIID, the craft makers participated and displayed their products in Forest Department Sales on Shan State Day. Furthermore, MIID assisted the villagers for market linkages of bamboo products in Bagan, Mandalay, Pyin Oo Lwin, Nyaungshwe and Yangon. By the end of 2017, MMK13,843,100 in crafts had been sold.

According to the SWOT analysis, the future perspectives on the bamboo handicraft business are promising. Investment in innovation by using existing resources (bamboo culms) as well as maintaining and replanting the bamboo should be practiced. Product labelling, branding and product upgrading must be considered.

Additional trainings on bamboo handicrafts, trainings in entrepreneurship, TOT trainings are required not only to continue achievements in the domestic market but to get a foothold in the international market.

The performances and practices that are essential to be sustainable in the long run are participation in trade fairs and product promotions, continuous linking with private and institutional buyers, market research to enter the potential local and foreign markets, engagement with other entrepreneurs along the value chains, replication of current tasks in order to be balance profitability and sustainability.



Bamboo Handicraft Makers and MIID Team at MIID Head Office

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