In Conversation with the People of Meghalaya

and Change Makers Pioneers



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FOREWORD

Since attaining statehood in 1972, Meghalaya has had to grapple with issues of poverty that is prevalent in the state. Various governments both at state and centre have implemented several economic initiatives for poverty alleviation but most have been unable to effect any significant change. The erstwhile Planning Commission indicated that there has hardly been any decline in rural poverty in Meghalaya in the last two decades, with the Meghalaya Government estimating the poverty level to be at approximately fifty percent of the state's population.

In 2012, the Government of Meghalaya took a bold new step to reform the way development is implemented in the state, adopting a new citizen centric mode of implementation against the traditional subsidy approach. In this approach the thrust would be on building enterprise and an enterprise spirit for self supported development. The rationale behind this decision is that equal partnership, in the development process, between the citizen and the state will ensure sustainable, equitable and inclusive development. The idea that no single government department can cater to the broad needs of the people but that convergence is required for holistic development is thus the new principle in the state's development strategy. Further, institutionalization of a bottom up approach ensures that the voice of the people determines the direction that development takes. The Integrated Basin Development and Livelihood Promotion Programme is a result of this new radical thinking.

Since then, there has been a marked change in the state which is evident in the stories of success that are emerging from across the state. The thrust to create an enterprise spirit has allowed people to explore their own capabilities and to pursue enterprise of their choice while the government through its various arms, including the IBDLP and the convergence of departments facilitates individuals in their endeavours.

A number of people have manage to stand out from amongst the many entrepreneurs, either by going out of their way to support other aspiring citizens or by pioneering new ideas, opening up new platforms for people to follow. In this issue of the In Conversation With the People of Meghalaya, we highlight a handful of such entrepreneurs who have left a mark and earned their place as Pioneers and Change Makers.

CONTENTS

VOL.12 July 2017

Ryntihlang CLF Agents of Change	1
Mylliem Piggery Behind the Scene	11
Mr. Dlas Rani A Traditional Healer with a Cause	21
Kong Phikaralin Wanshong The Enterprise of Food Processing	29
Kong Sketina and the Nongrwe Iamonlang SHG Bringing Change Through Collaboration	37
Green Ambassadors Mowtyrshiah Youth Welfare Organization (MYWO)	47
Smokey Falls Tribe Coffee Bringing High Quality Indigenous Coffee to the Masses	55
Shri Bindaram Momin An Apiculture Farmer	63
Kreseni Marak Building an enterprise on Flowers	73
Shri Layland Pioneering Aloe Vera Processing in Garo Hills	83







respectively. We worked tirelessly for local development and to improve the lives of people in their communities.

The Integrated Basin Development and Livelihoods Promotion Programme aims to nurture such change makers across Meghalaya and help them in their efforts to transform their local communities. Here we present the story of the Ryntihlang Cluster Level Federation under Cham Cham village cluster, a stellar example of how a group of individuals has been to come together to effect significant social and economic change at the local level.



About the Community Nursery

A key initiative of IBDLP under Mission Green is the creation of "Community Nurseries" at the village level through the involvement of the village level groups such as Cluster Level Federation (CLFs), Cooperative Societies, SelfHelp Groups (SHGs), Village Employment Council (VECs), Natural Resource Management Groups (NaRM-G),Joint Forest Management Committee Water (JFMCs), Committees etc. The Community Nurseries are owned and operated by communities or community-based organizations (CBOs) in a participatory mode with the government. The Community Nursery initiative is designed to increase sustainable green cover particularly in degraded, catchment areas by making planting material available and incentivising afforestation, supporting adoption of green technologies at the local level, and building a grassroots 'green movement' by engaging working with green ambassadors and encouraging the idea of 'clean and green villages' in the state.

RYNTIHLANG CLF / "CHAM CHAM CLUSTER" : BACKGROUND

Cham Cham is a village located in Khliehriat block East Jaintia Hills district. Meghalaya. The village was established 300 years ago. Currently it comprises a total of 300 households with a population of 1995 community members. Cham Cham has a temperate climate and had lush forests and extensive green cover. Unfortunately, large scale unsustainable land use practices have resulted in the depletion of primary forest and colonization of the degraded sites by Pinus kesiya, a local variety of pine tree. The presence of isolated patches of degraded forests amidst the grassland imparts a savanna like appearance to the landscape of the region. Major crops grown in the village are paddy, maize, potato, sweet potato, ginger, turmeric, mustard, radish, cabbage, beans, pumpkin etc. Fruit trees such as pomelo, pear and indigenous fruits such as Prunus nepalensis (vernacular name - sohiong), Myrica esculenta (vernacular name - dieng sohphie) etc. are grown here as well. The

village is also a source of key indigenous seed varieties of conventional crops such as paddy (kba laispah), beans (toh pnar) and ginger (sying blai).

The Ryntihlang CLF was established in 2011 and incorporates 12 SHGs (10 SHGs from the village of Cham Cham and 2 SHGs from the adjoining village of Lumshyrmit; this adds up to one all male SHG, seven all female SHGs and four mixed gender SHGs. The governance of the CLF is carried out by 24 members- two representatives from each of the member SHGs. The Ryntihlang CLF was initially promoted by the Meghalaya Rural Development Society under the Meghalaya Livelihood Improvement Project for the Himalayas (MLIPH) funded by the International Fund for Agriculture Development (IFAD) and the Government of Meghalaya.

Today the CLF operates a nursery and a highly successful seedbank under the Community Nursery and Community Seedbank initiatives of MBDA. The Community Nursery initiative is designed to increase green cover particularly in degraded catchment areas, supporting adoption of green technologies at the local level, and strengthening a grassroots 'green movement' by working with green ambassadors and encouraging the idea of 'clean and green villages' in the state. The Community Seedbank on the other hand acts as a genetic storehouse for indigenous food crops and ecologically rare and valuable species in the region. This allows for preserving genetic variations specific to local regions across the state, protecting regional biodiversity, and contributing to climate change adaptation efforts by ensuring preservation of diverse plant and food crop species that can adapt to changing climatic conditions. Both these initiatives are unique in that they are designed as social enterprises, which have both ecological benefits and can provide sustained livelihood to the communities that engage in these ventures.

HIGHLIGHT OF ACHIEVEMENTS OF THE RYNTIHLANG CLF

Since inception, Ryntihlang CLF has made significant strides in institution building and social mobilization. Its progressive internal social dynamics, cooperation among group members, and willingness to volunteer resources and time for local development interventions are all reasons why the CLF was chosen as one of the host communities to pilot both the Community Nursery and Seedbank initiatives.

About the Community Seedbank

Seed banks are a facility where seeds of indigenous food crops or other valuable local species are stored and propagated such that they become a storehouse for local biodiversity. Meghalaya has a large variety of indigenous food crops but most of these varieties are being lost as farmers are using more easily available hybrid seeds. Deforestation can also cause great loss of biodiversity in a region, leading to a loss of plants that can be very valuable for their ecological or medicinal properties, for timber and non-timber products, etc. Toward mitigating this loss and taking one step toward preserving the great biodiversity wealth of Meghalaya, MBDA is partnering with ANNADANA Soil and Seeds Saver Network.

Community Seedbank

Right from the start, members of the Ryntihlang CLF were enthusiastic about the seed bank concept and unanimously decided to contribute their existing land bank toward setting up the seed bank, and using it to conserve and multiply their local, indigenous, open pollinated, vegetable crop varieties. As of now, vegetables being grown at this Seed Bank site include local varieties of cucumber, tomato, potato, flat beans, pumpkin, bitter gourd, radish, mustard, sponge gourd and spring onions; spices include the Lakadong variety of turmeric, different types of ginger, chillies, garlic, and mustard. The seed bank is more than a storehouse for plant genetic diversity however, it is also a repository of formally documented knowledge traditional agricultural practices, preparation of indigenous varieties of bio-inputs (in lieu of chemical fertilizers). This knowledge not only helps retain organic, ecologically sustainable agriculture in Meghalaya, but also saves farmers the cost of expensive chemical inputs such as fertilizers.

Having been very successful in their initial phase of growing these crops, getting a yield of high quality seeds, and storing it without spoilage, CLF members have now decided to diversify their seed bank in the next phase. Now they plan to also include local varieties of high value cereals such as rice and millets, roots and tuber crops, and temperate fruits.

Results: Reports from rigorous, third-party laboratory testing of seeds yielded by the indigenous open-pollinated vegetable crops at Ryntihlang Seed Bank prove that the quality of seeds grown through these indigenous organic techniques has improved both seed quality and quantity from 53.52 % to 76% (on average).

Name of the CLF	Crop	Germination rate(%) (Before intervention)	Germination rate(%) (After intervention)
Ryntihlang CLF Village: Cham Cham Block:Khliehriat District:EJH Zone:Temperate	Mustard Black (Tyrso long)	66.5	98.5
	Mustard White (Tyrso Lieh)	63	93.75
	Pumpkin (Pathaw Thohbrai)	22.5	11.
	Flat beans (Tohkper)	47.5	90
	Snowpea (Motor snep)	56.2	79
	Cucumber (Sohkhia)	58.5	77.75
	Corn (Riewhadem)	60.5	82
	Average	53.52	76



Community Nursery

In comparison to other communities, the Ryntihlang CLF members quickly recognized the environmental but also long term economic benefits of the Community Nursery initiative. During interviews with CLF members, they mentioned that they saw this as an opportunity to restore degraded land in and around their own village and preserve the indigenous tree species of their region, many of which were valuable but declining. In fact, even during the initial period of the initiative, when MBDA was supporting communities in sales of the saplings grown at their nurseries, members of Ryntihlang CLF had already taken the initiative to explore broader market

opportunities for independently selling their saplings without MBDA's sales support.

As with the seed bank, Ryntihlang Community Nursery has also become a model nursery. It is frequently used as a training centre for other CLFs who have newly started their own Community Nurseries. The CLF has 3 master trainers who have been trained by MBDA and external partner organisations. These individuals now get a steady income from regularly acting as resource persons for training community members across the state in seed bank and nursery management practices.





Social Achievements

It may be noted that the Ryntihlang CLF was already reputed as a strong community institution at the time that the Seed Bank and Community Nursery initiatives were started. It had been highly rated (B1 Grade, or "good") in the statewide grading exercise that was carried out by the Indian Institute of Bank Management, Guwahati at the time that the MLIPH Project was wrapping up in 2012. As the seed bank and community nursery related activities have progressed, this CLF has not only become stronger in its internal operations, but has also emerged as an important steady grassroots partner for MBDA, supporting it in implementing sustainable development initiatives in communities across the state.

Key approaches and achievements of the Ryntihlang CLF:

 The Community Seed Bank and the Community Nursery of the Ryntihlang CLF have become designated as a "Model Seed Bank" and "Model Community Nursery"; today they are used as Training Centres for other CLFs that have newly started their own Community Seed Banks and Nurseries.

- CLF members have contributed labour in the form of sweat equity i.e. members earn their share of the seed bank by working in it, and contributed various materials and also cash as required for operations of the seed bank and nursery. For instance, if 10 individuals are required for a day's task, then typically all SHGs are requested to send in equal numbers of members to participate in the activity; rosters are maintained to record the hours contributed by an individual. This even distribution of work reduces the potential for conflict within the Community Nursery and makes activities equitable.
- The CLF has take the initiative to drive engagement with local officials in the Community & Rural Development Block of Khliehriat (within which administrative unit the CLF is located) to mobilize financial assistance to construct compost pits and acquire livestock, particularly cows which act as a source of fertilizers for the CLF. The assistance mobilized during the period 2016-17 was approximately INR 70,000 and had enabled the scaling up of organic

• farming input production.

Assuming the role of local environmental leadership, Ryntihlang CLF also took the initiative to organize exposure programs for college students from Martin Luther Christian University Shillong. During this, CLF members shared their learnings from their efforts to conserve indigenous open pollinated crop varieties and discussed the importance of their work for environmental sustainability.

COMMUNITY EXPERIENCES AND LOCAL DYNAMICS

During our visit to the CLF we were able to speak to a number of the members and record the key issues that emerged during the discussion. Some of these have been discussed earlier in this article. A few others are summarised as follows.

The Ryntihlang CLF has had the advantage of having access to land at the time that the Seed Bank and Community Nursery initiatives started. This was an advantage over other CLFs that had to negotiate land access with individual group members or with land owners that may not have been CLF members and who did not share the CLF's interests. When asked about their reasons for

participating in these initiatives, Ryntihlang CLF members mentioned both ecological and economic benefits. They explained that the seedbank provides the opportunity to bring back indigenous and organically grown crops into local mainstream agriculture, while the nursery allows them to reclaim previously degraded land. They said that both these initiatives were smart ways to conserve indigenous species and conserve ecology, while also providing a sustained source of livelihood to the people.

Another point is the lack of locally available, viable livelihood options in the Cham Cham area. This limitation was acutely felt by community members subsequent to the ban on coal mining which used to be a primary livelihood activity for many communities in this region. This forced community members to seriously invest time and resources into making their Seed Bank and Community Nursery viable activities that could serve as alternatives sources of livelihood (via sale of seeds and saplings) and also strengthen local agriculture and make it more economically viable (via enhancing quality of seeds and restoring hardy, popular crop varieties particularly vegetables, spices and food crops).



CHALLENGES

The CLF encountered a number of operational challenges during the initial phases of implementation of the initiatives. The members however have expressed that these challenges served as learning opportunities and ended up strengthening their operations. Key challenges stated by CLF members during the interviews are as follows:

SI. No	Challenges faced	Action taken by the CLF to address the challenges
1.	Low availability of raw materials such as cowdung, cow urine etc required for preparation of bio-inputs.	CLF undertook an initiative for convergence with the C&RD Deptt. and through their Scheme they mobilized cows of two local breeds. They now plan to purchase a few more cows and also mobilize them from the village.
2.	Lack of Road connectivity to the seed production farm and nursery.	Constructed a kuccha approach road with the support of the community.
3.	Lack of knowledge and skills for marketing of seeds, saplings and other farm products	CLF sought support from MBDA for facilitating them with preparation of packaging and labeling of products. They also participated in the exhibitions organized by MBDA/government line departments to better understand marketing of farm produce.
4.	Lack of infrastructure such as compost pits, vermi compost pits etc for production of compost.	CLF mobilized one compost pit from the C & RD Block.
5.	Presence of stray cattle in and around Cham cham village.	The CLF worked with the traditional village authorities to design and implement rules for preventing cattle from straying and damaging plantations.

The Ryntihlang CLF has been a great source of knowledge and inspiration for many communities engaged in sustainable agriculture and ecological interventions, besides being a critical institutional partner for MBDA. We at MBDA wish them the best of luck as they progress forward and scale up their activities.







ylliem village in East Khasi Hills, just 17 kilometres away from Shillong, is one of the many villages in Meghalaya with a remarkably scenic landscape, lush green cover pine tree groves and prestine rivers. Located on the highway leading towards Sohra (Cherrapunji)-the best known tourist destination in the state -Mylliem has always been a food halt for travellers. Its quaint food stalls are always packed with people and stocked with its famous local delicacies. The most famous of Mylliem's local cuisine is its smoked meat – either beef or pork - and its smoked meat dishes.

Smoked meat from Mylliem, particularly pork, is highly sought after by people from within Meghalaya and outside. The reason is the unique flavour of the smoked meat here which is quite different than that of smoked meat elsewhere. It is said that this flavour owes itself to the meat from local varieties of pigs and cows, and to the specific local traditional method of smoking. Meat lovers and tourists who frequent this village swear by the meat, and often come from great distances just to sample it.

Since pig farming is one of the most common livelihood activities in Mylliem, the Knowledge Management team of MBDA travelled to the village to speak with local community members involved in activities along the local piggery value chain to better understand the sector that lies behind the famous Mylliem smoked pork.

Why is Mylliem pork famous?

Biangborlang Kharumnuid: : I am in this business for a year now and I can say with certain confidence that buyers come from many places to buy Mylliem pork because they can rely on the good quality of the meat that we produce and sell.

As a seller, it is important for us to know the meat we sell. We buy the pigs locally and because Mylliem is a small village, we know whether the pigs are healthy and fit for human consumption or not. This is important to the consumers and to us.



How much does 1 kg of pork sells and how much do you sell daily?

Bah Kharsohnoh: We sell pork at Rs. 240/-per kilogram and buyers come from across the region including Shillong and even Guwahati.

We sell an equivalent of three pigs daily and on a Saturdays that figure can go up to five pigs. The number of buyers increases on Saturdays as it is a holiday.

Piggery: A traditional Livelihood of Mylliem

Many residents of Mylliem engage in livestock sector activities, with most households rearing livestock in their backyard; pigs are the more common of all livestock. Piggery appears to be the preferred option because of the ease with which pigs can be reared and sold. On average each household rears 2 - 3 pigs. In fact the entire piggery value chain in the area is well developed.

Pig rearing in Mylliem is usually done using traditional practices. Farmers usually make an initial investment of about Rs. 3,000 per piglet. This is the biggest single investment that the farmer typically make in this activity. The pig sty is constructed out of locally available materials gathered by the farmer, making the cost of construction minimal. As most households also practice farming, food for the pigs comprises organic waste such as rice husk or vegetable that is generated by the farms. The pigs become ready for sale after 9 to 12 months. Fully grown pigs sell between Rs. 10,000 to 15,000 depending upon their weight.







How has piggery benefitted your livelihood?

Kong Bintimai Kharumnuid (Tea & rice stall owner)

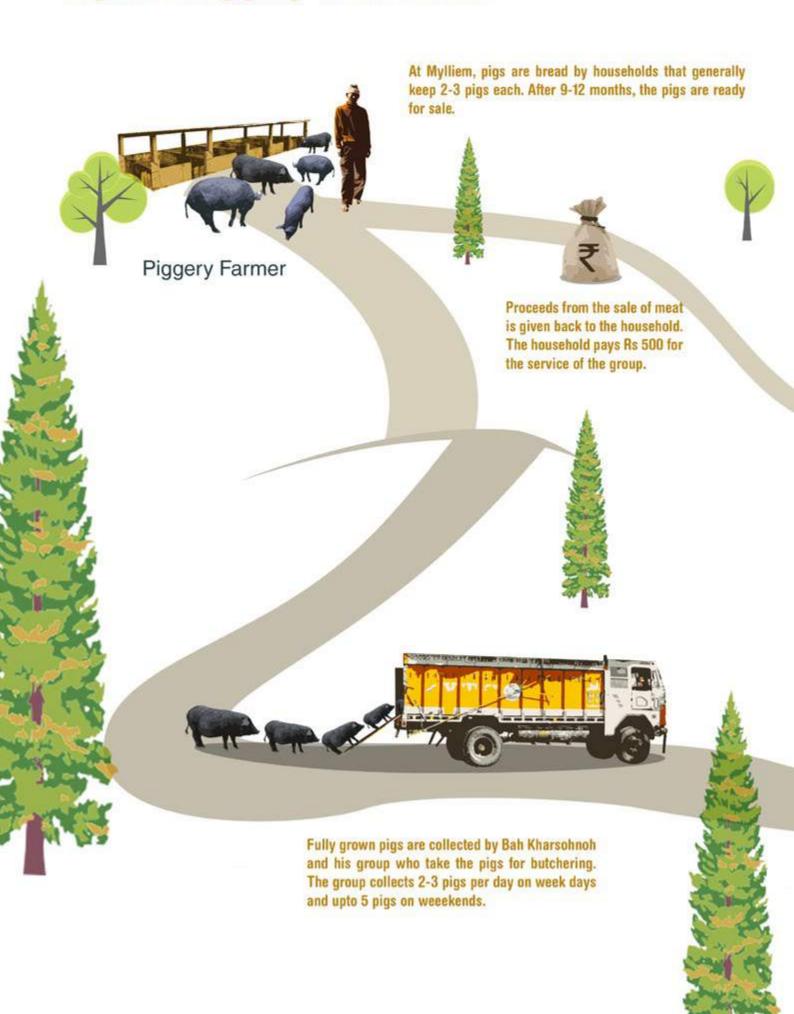
Running a tea stall has always been my livelihood, handed down to me by my parents and today I run this business with my daughters. Most of the profit that I get is from selling smoked meat and smoke meat dishes; smoked pork sells at Rs 260 per Kg. I buy the smoked pork from the shop run by Bah Darington because, with him, I need not worry about the quality of meat. It is common knowledge that his shop sells only local variety of pigs.

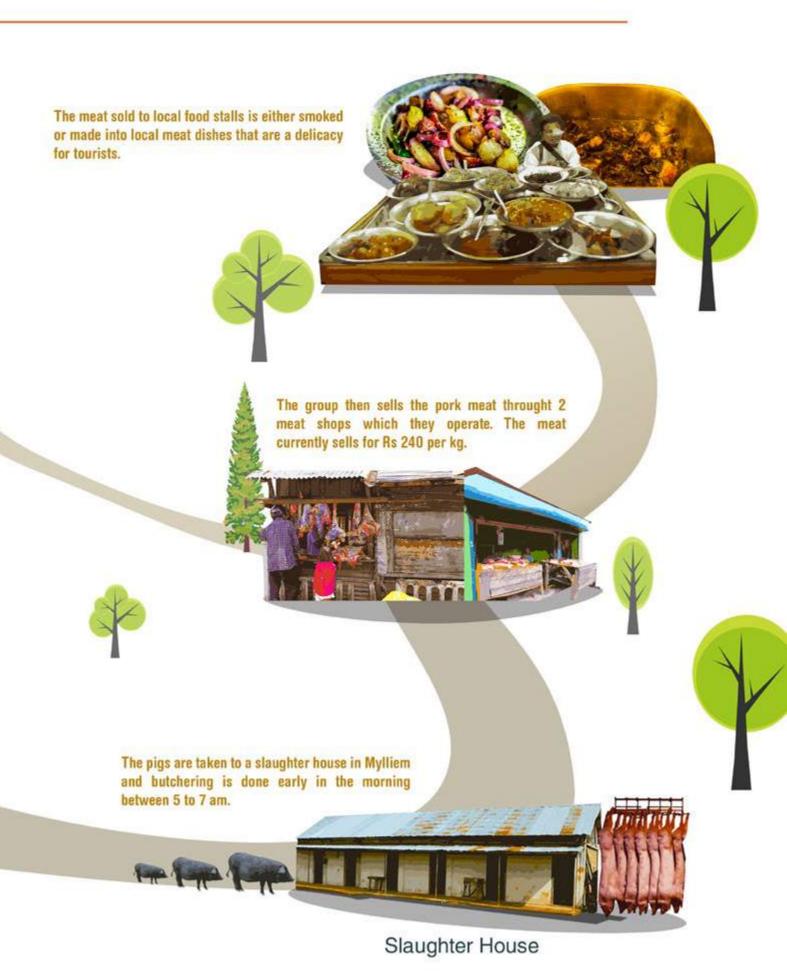
I also rear pigs at home as most households in Mylliem do to earn additional income. Ironically, in spite of Mylliem being famous for its pork, the piglets all come from the Mawngap market as there are no piglet farms in Mylliem.

In the past, pig buyers come from across the Khasi hills and sometimes even from other districts to buy our pigs. These buyers bought in bulk and often made it difficult for us to negotiate a good price. But since we had no other options for selling back then, we had to concede just to be able to sell. Today however, things have improved.



Highlight of the Mylliem Piggery Value Chain







How much do you invest in the pig rearing and how much do you earn from it?

Kong Bintimai Kharumnuid:

I buy the local piglets at Rs. 3000/- each and this is the only time I spend money on the business. I feed the pigs with vegetables from my own garden and with rice husk that is available locally. Sometimes when the pig is sick I need to spend on medicines but that is generally not much.

It takes 9 to 12 months before a pig is ready for sale. The money that I earn from selling the pig is used to purchase a new piglet and the rest is kept as savings. The price that I get varies depending on the weight of the pig but generally ranges from Rs. 10, 000/to Rs 15,000/- though sometimes it could even be more. In this way, I make a profit of at least Rs. 6,000 to 7,000 per pig, which really helps our family make ends meet.

A New Approach to Overcome an Old Problem

In the past, farmers from Mylliem would sell their pigs to aggregators who came mostly from the Khasi Hills area although some would also come from the Jaintia and Garo Hills. These aggregators often exploited the local farmers by forcing them to sell their pigs at unreasonably low prices. Since the farmers did not have any alternative means to sell their pigs, they were forced to accept these low prices.

One of the local residents of Mylliem - Bah Darington Kharsohnoh felt that there was an urgent need to change this exploitative system. Thus Bah Kharsohnoh started efforts to bring together members from the local community and gradually formed a group that could aggregate a supply of locally reared pigs, and sell the meat directly in the market at higher prices. Proceeds from the sale would be returned to the farmers. In return, each farmer would have to pay a fee of Rs. 500 per pig for this service.

This group-based approach proved to be extremely successful. It was quickly supported by most or all local farmers who now sell their pigs through this group since they are able to earn much more this way. As business has grown, so have group operations, but prices have always been kept fair. Butchering is done early in the morning, between 5 am to 7 am. After this, the meat is then sold in shops that are also operated by the group. The group currently operates two meat shops in Mylliem where they only sell local pork. Today, Bah Kharsohnoh and his group have expanded their sourcing to include pigs from farmers in villages neighbouring Mylliem.





Bah Darington Kharsohnoh

He explained that this has significantly increased their work but has also allowed the group to cater to increased demand.

During our discussion with Bah Kharsohnoh he recalled that this activity was not always smooth sailing. When the group first ventured into this business, many people accused the group of selling non local varieties of pigs but passing them off as local varieties. Bah Kharsohnoh and his group ignored these comments and focused instead on improving the quality of their services. Today, this group is widely acknowledged by the local residents as the one that turned Mylliem into a popular market for high quality pork. In fact, as word of this market spread and customer footfall rose, the number of local eateries specializing in smoked meat dishes also went up, turning Mylliem into a well loved food attraction for tourists and local foodies.

Bah Pynthymmailang Marbaniang, a local meat seller, informed us that he sells 80 kilograms of pork daily. On an especially busy market day such as saturday, he sells as much as 100 kilograms in a day. Bah Marbaniang sells meat sourced only from local varieties of pigs through Bah Kharsohnoh. Having been in the meat business for 15 years now, Bah Marbaniang has been able to build a comfortable life for his family and himself with the earnings from this enterprise. Bah Marbaniang is just one out of many community members in Mylliem that have been able to build successful businesses in the piggery sector, and be part of this thriving and famous local market.

Over the years, the piggery sector in Mylliem has grown so fast that the village is unable to meet the demand for piglets. Hence, most farmers buy their piglets from neighbouring villages, which is the only gap in an almost complete value chain. However, the local farmers are hopeful that they would one day be able to bridge this gap and buy piglets from their own villages.







In the last decade, Meghalaya has seen a noticeable decline in the awareness of traditional healing and the use of traditional medicine especially among the younger generation. This may be attributed to the increasing popularity and improved access to modern Western medicine which has confined traditional healing to non-mainstream and localised practices across small pockets of the state. As the country focuses on making medical care and medicine accessible to all sections of society, it is equally important to preserve this unique and valuable traditional knowledge that has been accumulated over centuries of experience and practice by a vast number of traditional healers, and prevent this knowledge from being completely lost.

Traditional healing has a number of benefits when compared to modern medicine. While it is true that modern medicine can detect and cure most illnesses, long-term and short-term side effects can often be problematic. Traditional medicine can be a viable alternative especially for common and non-threatening illnesses, as it typically does not have deleterious side effects. However, proper knowledge of this practice is essential for truly benefiting from it.

In Meghalaya, experienced traditional healers still have thriving practices across the state. These healers possess deep knowledge of traditional herb-based treatments that has been passed down across generations but also honed through regular practice. These healers are also well known and sought after for their massage therapies. Mawryngkneng is one of the many villages across Meghalaya where renowned traditional healers still practice. The Knowledge Services team of MBDA visited Mawryngkneng village and met with Bah Dlas Ranee, a well known 66 year old traditional healer who resides and practice there.

Bah Dlas has been practicing Traditional healing for more than 30 years. A spiritual person, he believes that his skill is a divine gift and that it is his duty to use this skill to help people. Bah Dlas started practicing traditional healing in 1981. Back then, Bah Dlas worked only within his neighbourhood and not many people knew of him. It was only in 1994 when he started regularly curing people of chronic diseases such as asthma, gastritis, back pain, rheumatism, diabetes and also malaria, chest congestion, and kidney stone problems that word spread. Soon after, Bah Dlas started receiving patients from all over the state and even from other countries.

KA JINGPLIE IA KA JAKA SUMAR BAD AI DAWAI JONG I BAH DLAS RANI HA KYNTOIT MAIN ROAD, MAINTYNGKIENG HA KA - 15 TARIK IAIONG, 2016 POR - 11:00 BAJE MYNSTEP DA U Dr. BALAJIED SING SYIEM SYIEM KA HIMA KHYRIM







Today, Bah Dlas has a practice set up in a rented house in Mawryngkneng village. His patients include people from countries such as Norway, Canada, China, and Nepal. Bah Dlas used to have an in-patient facility with ten beds. Lack of demand by patients for overnight residence forced Bah Dlas to scale down since maintenance of the beds was becoming a significant cost. He also used to run a clinic in Dhanketi, Shillong which he started in 2011with the support of Martin Luther Christian University but he eventually had to close it down in 2014 since most of his patients preferred home visits. Bah Dlas himself cultivates a number of medicinal plants and herbs on a six and a half hectare land that he owns, he also has a network of about eight to ten people across various villages who help him collect the appropriate herbs for his medicines.

During our conversation with Bah Dlas, he explained that there is a fundamental difference between the traditional approach to healing and that of modern Western medicine. As he put it, doctors practicing modern Western medicine generally diagnose patients based on symptoms. However, this approach can overlook ailments that do not have any observable symptoms. In traditional healing healers first examine the patients, then ask the patients to describe the symptoms, and finally match the patients' descriptions with their own diagnosis. Bah Dlas explains that this is necessary as sometimes the actual ailment can be very different from the symptoms perceived and described by the patient. Bah Dlas uses an unusual technique to diagnose his patients - he asks his patients to breathe onto his palm three times. This often gives him all the information he needs to correctly diagnose the problem. His treatments are equally unique. Unlike modern doctors who prescribe several medicines for patients with multiple symptoms, Bah Dlas always prescribes one medicine at a time. The medicines use specific herbal combinations that can address multiple illnesses simultaneously. It can take up to 6 days for Bah Dlas to prepare one herbal medicine. He does not retail his medicines since they are not mass produced but made specifically for individual patients. Nearly 1,000 people visit him for treatment every year.



Bah Dlas says that many of his patients come to him after not being able to get any relief from modern Western treatments. Others come to him knowing that herbal treatments typically do not cause negative side effects on health. Then there are those who come to him because they do not have access to modern medicines or because they cannot afford it. Whatever the case may be, Bah Dlas emphasizes the importance of faith. He says that for those who believe, his medicine can provide relief almost instantaneously. For others, it may take longer or not work at all. An important point revealed during the discussion was the availability of herbs. Bah Dlas is wary about the effects of climate change and how it will affect the herbs he uses.



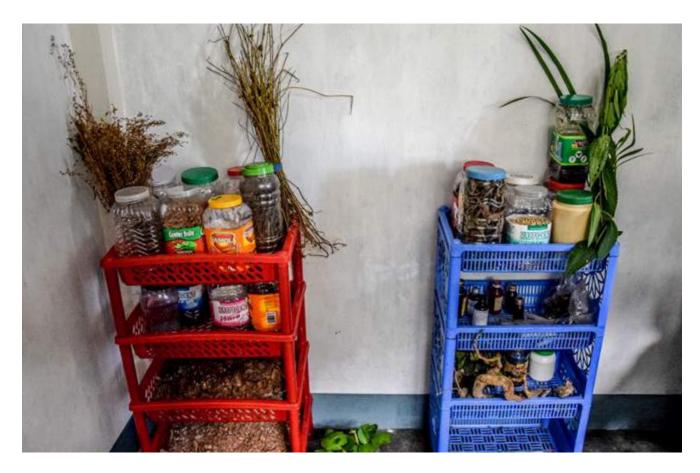












Particularly interesting is the fact that Bah Dlas does not have a fixed price for his services or his medicines. Instead, he only takes whatever his patients are able to pay. His philosophy is that access to healthcare should not depend upon what someone is able to afford.

Today, Bah Dlas is one of the key figures in traditional medicine in Meghalaya. He is passionate about his practice and continues to encourage other healers to come forward and share their knowledge as this will help preserve collective knowledge around traditional healing methods. He himself works tirelessly to disseminate this knowledge and regularly teaches people about herbal medicines and the healing properties of indigenous plants. He has given several lectures at local schools and colleges including Shillong College and St. Edmunds College. He has also participated as a resource person at Community Dialogues organized by the Meghalaya Basin Development Authority around the issue of traditional knowledge and the importance of preserving it as an integral part of Meghalaya's heritage.

Bah Dlas himself notes that though he has trained many people, they do not practice regularly and hence do not refine their knowledge or help spread it. He also mentions that some individuals would like to mass produce and market traditional medicines as a business. Bah Dlas strongly felt that this attitude was detrimental to the preservation of this indigenous knowledge. And yet he is hopeful given what seems to be a recent re-awakening of interest in traditional healing practices. Passionate preserving and sharing this knowledge, Bah Dlas hopes that one day dedicated institutions shall be set up in the state to preserve and also revive these unique and wonderful nature based healthcare practices.



KONG PHIKARALIN WANSHONG

The Enterprise of Food Processing





Phikaralin Wanshong (or Kong Kara as she is lovingly known), is a resident of Pohkseh, Shillong, and an entrepreneur who specializes in food processing. Her work has been widely acknowledged including by the Ministry of Micro, Small and Medium Enterprise which awarded her with the Best Entrepreneur Award in 2010. The award was conferred to her by the then President of India Smt. Pratibha Devi Singh Patel in New Delhi.

Kong Kara inherited her interest in food processing from her mother who was quite passionate about pickle making. Kong Kara is herself a mother of four kids and she initially made pickles just for self-consumption. Her children loved the pickles and so did all friends and neighbours who got to have a taste. This constant positive feedback finally motivated her to officially enter the food processing business. In 1998 she took the first step by attending a two week training course organised by the Department of Food and Nutrition. Aspiring to succeed in the food processing industry, she went for further training under various departments, including training organised by the Department of Horticulture in 2005 and 2006 at Fruit Garden, Shillong.









Kong Kara's dedication, hard work and growing technical expertise through all the training allowed her to set up her own processing unit -Kara's Fresh Foods - just next to her house. She then received financial assistance in the form of loans which helped her expand the business. Products made by her enterprise include a large range of pickled foods - bamboo shoot, dried fish, beef, tamarind, mango, wild apple, chillies, Eleagnuslatifolia (sohshang) and various other locally available fruits. The enterprise also manufactures juice from locally available fruits such as star fruit, pineapple, Meghalaya's Cherry (Sohiong) and many others. Kong Kara buys the raw material for pickle and juice from the local market at Iew duh and also from the weekly market at Smit, Mawryngkneng, where she can procure a variety of fruits at a reasonable price. Over time, she also networked with farmers for direct procurement from them. Since hygiene is very important to her operations, Kong Kara is especially careful about cleaning and drying all produce before the pickling or processing. For her packaging, Kong Kara buys plastic pouches and plastic jars from Mumbai and Guwahati

respectively. Roughly calculated, the enterprise operates at a 25% to 30% profit margin.















Because of her ever expanding business, Kong Kara has received many opportunities to showcase her products at exhibitions organised by the Government of Meghalaya. She has also had the privilege of showcasing her products at a national exhibition organised by the government in New Delhi. Additionally, she was sponsored under the Chief Minister's scheme to participate in a one month bakery training programme under JM Bakery in Bangalore.

As a female entrepreneur, Kong Kara has also taken up the responsibility of helping other women who faced economic hardship and want to take up entrepreneurship activities. Thus she has herself trained students from various institutions and aspiring entrepreneurs who are particularly interested in food processing. She has also been engaged for training programmes organised by other organisations, including the Meghalaya Institute of Entrepreneurship.

In fact, students from institutes such as Martin Luther Christian University and St Anthony's College Shilllong have also done projects and internships at Kong Kara's food processing unit.

As with pickles all those years ago, Kong Kara has recently ventured enthusiastically into the bakery sector, and has even set up a shop at which to sell her baked goods. Her success in food processing has attracted online retailers such as www.giskaa.com who now sell many of her products online, a testament to her diversifying and expanding business and the popularity of her food products.

On being asked why she decided to diversify into the bakery business, Kong Kara said that market demand in the food sector was growing in Meghalaya and demand for baked goods in particular was consistently high. She also said that she faced additional challenges with selling her processed food products. For example, she

could only collect the money after the products had been sold but these products were often displayed in retail outlets for two or three months. If shops could not sell the products before the product expiry date, some of it would get spoilt. Being stored in shops for long periods of time sometimes also spoilt the packaging and labels. Shop owners would return such products resulting in a loss to Kong Kara.

At present Kong Kara bakes buns, fruit buns, rum balls, bread, dough nuts, croissant, cakes, patties, pastries, lamington, biscuits, chops and many other baked goods. Per day, the baking requires about 15 kilos of flour. She starts her cooking at the bakery early in the morning and continues till about 2 in the afternoon. After this she dispatches the products to her outlet for sale.

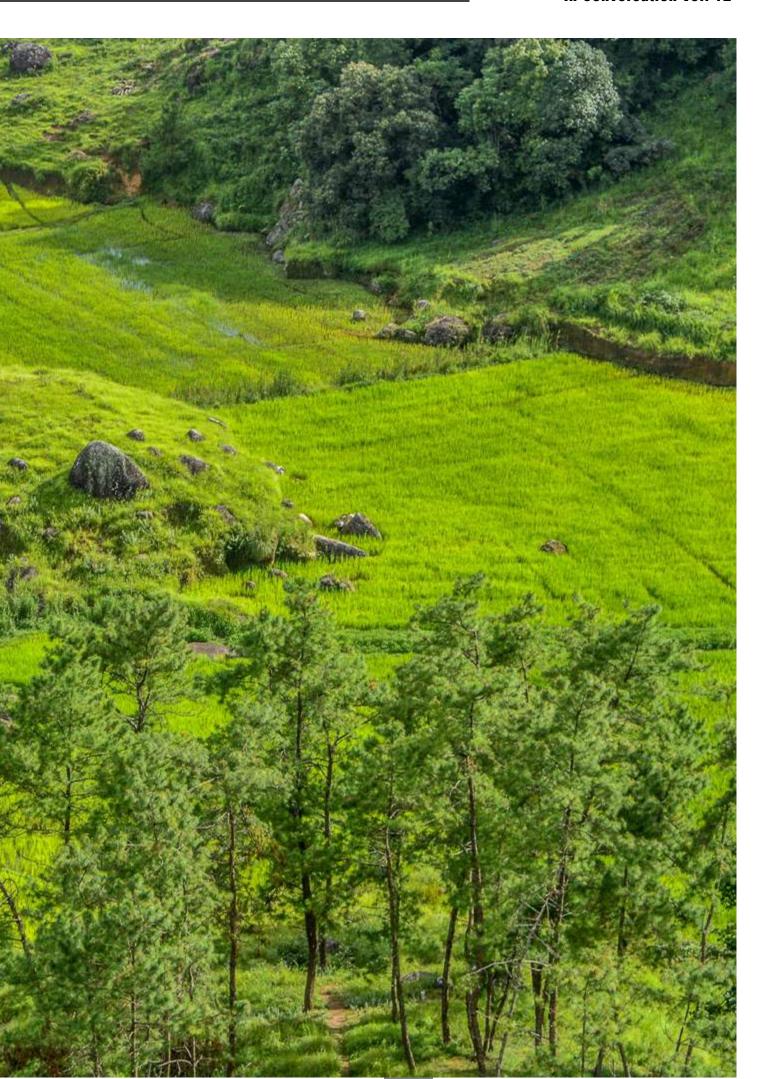
Comparing the profits from the two food enterprises, Kong Kara notes that her margins are higher at the bakery. However, she is committed to her pickling and processing unit and believes that it will become more successful over time.

In 2015, Kong Kara registered herself as a partner with Enterprise Facilitation Centre (EFC), in Mylliem village, East Khasi Hills. She is looking forward to enhancing her skills through further specialized trainings under IBDLP and is also keen to help other entrepreneurs who want to start or scale their businesses.













onglwai is a small village located in West Khasi Hills District, 16 kilometres from the district headquarter, Nongstoin. Having 126 households with a population of 887 people, agriculture and livestock rearing are the main livelihood activities of the people of the village. Due to meagre income from these activities, people still rely on the traditional barter system to engage labour for their farms in exchange for goods and services. Life is tough for many residents of Nonglwai.

In 2013, a group of 11 like-minded residents led by Kong Sketina Kharbani, got together and decided that there had to be some way for them to earn a better livelihood and improve the quality of their lives. After a lot of discussion and planning, these individuals came together on 11th June, 2013, and formed a Self Help Group (SHG) called Nongrwe Iamonlang. Today, this group is one of the most successful groups in West Khasi Hills and engages in multiple livelihood activities ranging from agriculture and livestock to sericulture. The group also owns numerous assets such as a collection centre, a grocery store, a tailoring centre, a pickup truck and a power tiller. In addition, the group runs a morning school which provides basic education to children from Nonglwai and nearby villages.

History of the Nongrwe lamonlang SHG

efore the Nongrwe Iamonlang SHG was formed, its members were engaged in agriculture; they grew maize, sweet potatoes and rice for consumption. They also reared pigs and cows which were a form of insurance that could be sold in case of urgent financial need. Overall, this was fairly typical of most residents of Nonglwai. These future SHG members were also close to each other and often worked together. People in the village found this informal group to be a reliable source of labour and would hire them for village events and festivals. This provided the group with additional income especially during winter when returns from farming were low or absent. However, the members still struggled financially and also shared aspirations such as giving their children a good education up to college level.

During this period, the group had noticed that one of the local farmers was able to earn a good living by cultivating vegetables. He would sell all his produce on every market day and unlike their barren farm lands during winter, his land was cultivated throughout the year. This intrigued them and they decided to visit the Agriculture Department in Nongstoin to enquire about farming techniques and procuring vegetable seeds. Kong Sketina took the lead in meeting the departmental officers, but even she initially felt too diffident and shy to express her queries. Thus she would visit the office often but not talk to anyone. Instead she would sit in the veranda until everyone left the office and then she would leave. This continued for about two weeks until one of the officers noticed this odd behaviour. Out of curiosity, the officer invited Kong Sketina to join her inside for a cup of tea and asked her why she kept coming to the office but leaving without speaking to anyone. Kong Sketina finally opened up to the officer and told her about the group and how they were interested in growing vegetables but did not know how to get seeds, technical guidance or even where to start. Kong Sketina told the officer that she wanted to buy the seeds, not knowing that she could obtain them for free through various government schemes. Touched by her simplicity and commitment, the officer handed her some seeds of carrot, peas and tomatoes, and also gave Kong Sketina her phone number so that she could call her for help as needed.











Initially, the group sowed these few seeds on Kong Sketina's land, following the simple instructions of the officer. That initial harvest yielded the next batch of seeds and they hence did not need to purchase seeds again. The quality of vegetables from their initial harvest was fairly poor and did not sell well at the local market. After consulting with the same officer, Kong Sketina got the chance to participate in a vegetable cultivation training programme being conducted by the Agriculture Department at Nongstoin. Upon completion, the group restarted their vegetable cultivation initiative using the technical knowledge they now had. This time, their vegetables were healthy and sold out at the local market. Just as with the first harvest, they made sure to store some seeds from this batch of vegetables as well. They then shared the seeds with all the members such that the members were able to sow seeds on their individual land. Since all of them were also rearing pigs and cows, they faced no difficulty in sourcing manure to be used as fertilizer.

It was much later that the group officially registered itself as the Nongrwe Iamonlang SHG with kong Sketina as the president, after being repeatedly advised to do so by various NGOs and local social workers. Since then, the SHG members have received multiple rounds of training from the Agriculture Department, Horticulture Department, Sericulture Department, Cooperative Societies, and most recently, through the Basin Development Unit in West Khasi Hills.

While selling their produce in the market, the group realised that some members were better at negotiating and were able to sell their produce at a higher price. Thus they decided that the good negotiator from amongst them would aggregate their produce and try to sell it at the best price in the market. This arrangement eventually worked really well for all members in the group because not everyone had to handle market affairs and yet everyone got a good price for their produce.

Livelihood activities of the lamonlang Nongrwe SHG

On average, each member earns a profit of Rs. 14,000 per annum from selling vegetables.

Every member rears cattle and pigs. The dung produced is used as manure which helps them save the cost of fertilizers.

The pigs are sold every winter for Rs. 10,000 each. Every member rears at least 2 pigs in a year.

The cattle are sold for meat when they become old. Every member has 10-20 cows.

The members also rear 30-35 chickens of the local variety which they sell for Rs. 500-800 per chicken.

The group also aggregates and sells produce from other local farmers at the market. Member who are skilled at negotiating can often get good prices for the farmers. This service is provided in exchange for a fee.

The Group also earns additional income by charging for the use of their power tiller, pickup truck and multi facility storage unit.

The members of the Iamonlang Nongrwe SHG have been sent for several training programs both within and outside the state. When asked why the members attended so many trainings and workshops, their reply was simply -- every member has to be thoroughly technically proficient before venturing into the field to ensure that their efforts are successful. The group perceives every invitation by various government departments to be a valuable opportunity and considers it their responsibility to sincerely participate in all sponsored programmes. The added benefit is that this frequent participation has allowed the group to build close relationships with government officials who are a valuable source of information and handholding for their farming operations. Officers from departments such as Agriculture, Horticulture, Sericulture and Krishi Vigyan Kendra (KVK) West Khasi

Hills, and even senior administrative officials including the Principal Secretary and Chief Secretary to the Government of Meghalaya (at the time), have met and engaged with the group, providing guidance when needed. In fact the SHG has also been selected by KVK West Khasi Hills as a Model for Seedling Demonstration to enable other groups to learn from them.

The members of Iamonlang Nongrwe continue to be driven and motivated, taking every opportunity to learn, to collaborate with resource persons, and to be open to new ideas and people. This has had commensurate positive impact on their farming enterprise and also made them into resource persons for other communities who want to emulate them.

To enhance their collective skill and capacity, each member of the lamonlang Nongrwe SHG has attended trainings sessions, and participated in numerous programmes organised by government departments. An approximatelist of trainings and events attended by the group as a whole is given below -

- Training by the District Agriculture Dept, West Khasi Hills, Nongstoin
- Attendance at Delhi Agriculture Sales Exposure (3 times).
- Agricultural exposure session, Kanpur
- Sericulture workshop, Kolkota
- Training on manure making at ICAR, Umiam
- Training on mushroom farming at ICAR, Umiam
- Training on bee keeping at Colks, Mawlai
- Training on cooperative society leadership development, Nongsder
- Workshop on providing care for adolescent girls organized by the National Institute of Public Cooperation and Child Development (NIPCCD), Khanapara, Guwahati
- One of the members completed a Bachelor of Education (B.ed) program at College of Teacher Education (PGT), Shillong

The Iamonlang Nongrwe SHG has been able to leverage support from government schemes through constant collaboration and informational meetings with various departments. For example, they were able to avail of a 50% subsidy when purchasing a pickup truck with the support of the district Horticulture office in West Khasi Hills. This truck is used not only by group members but also by other farmers in the village to ferry produce from the village to the market at minimal cost. Similarly, the group was able to purchase a power tiller via a 50% subsidy scheme from the Agriculture Department.

Along the same lines, the Agriculture Department through their Rashtriya Krishi Vikas Yojana (RKVY) Scheme was able to sanction funds to cover the cost of constructing a Multi Facility Centre. This centre is being

used by the group to operate a grocery store, a collection centre, a small tailoring centre and also a tea stall.

The group also received a grant from the district Sericulture office in West Khasi Hills for the construction of a shed where they could rear and store silkworm cocoons for silk production. The plan is to produce silk here that can be used as raw material for the proposed Spinning-cum-Handloom Centre of the group.



Other Initiatives by the Iamonlang Nongrwe SHG

The village of Nonglwai has a few groceries stores but the price of the goods from these stores is typically very high and unaffordable for many residents. This motivated the group to buy goods from the wholesale market and sell them in the village at low prices. As a regular practice, whenever group members return from the market after selling their produce, they make sure to buy groceries and other items which they then sell in the village at low prices.

A social initiative managed by the Iamonlang Nongrwe SHG is the A.T. Shipara L.P. School. "Shipara" means "Brothers and Sisters" signifying the school's principle of universal inclusion. Since most of the residents of Nonglwai are farmers, they are often unable to send their kids to a good yet affordable day school. The A.T. Shipara L.P. School is free. The school teachers are mostly college students or graduates who volunteered to teach in the mornings. Before the Iamonlang Nongrwe SHG took up school management, the school was facing challenges in getting necessary support and resources from the government. This struggle had gone on for upward of 10 years. Seeing the success of the Iamonlang Nongrwe SHG, the school's founders turned to them for support. Under the leadership of Kong Sketina Kharbani and Bah. Zacheus Tympuin (Secretary) of the Nongrwe Iamonlang SHG, in 2015 the school finally got the required approvals and sanctions and has now been listed for upgrade to Upper Primary Level. This is significant progress because it means that children from this locality need no longer travel long distances to neighbouring villages for their upper primary level studies.

Recently, the support of senior government officials and community members has led to plans for creating residential facilities at the school and for expanding the curriculum at the school to include teaching of agriculture based activities in addition to emphasis on various skills and physical activities.

The group is also thinking of yet another new venture - a biodiversity park. Having seen the rampant environmental degradation in this and other areas of the state, the members feel that it is their duty to help preserve local environmental resources. Through this park, the SHG particularly hopes to conserve indigenous and ecologically important species of flowers and spread more knowledge about the local ecological heritage. The MBDA team wishes the Iamonlang Nongrwe SHG good luck in all their wonderful ventures and social initiatives, and hopes that spreading the story of their journey will inspire many community members across Meghalaya to take initiative in the same spirit.







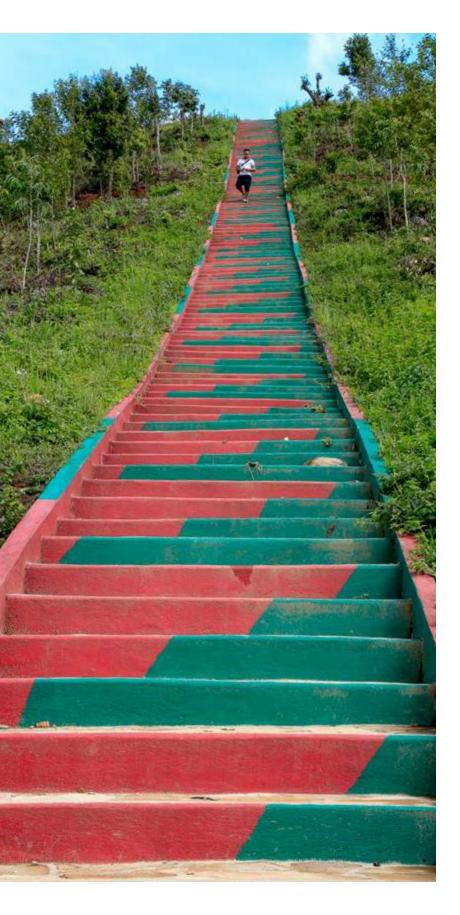
Pormed in the year 2001, The Mootyrshiah Youth Welfare Organization's (MYWO)motto is "Join the Green Side". Focused on greening their village and surrounding area, this group of youth has helped create a remarkable increase in green cover in their village and surrounding areas over the last fifteen years.

The group's passion and commitment to their goal has led to the formation of the Lumtiniang Park. The group regularly conducts cleaning drives and awareness campaigns in the village to mobilize people around cleaning and greening efforts. The group also often conducts workshops and cleanliness drives in the local schools, working to make the local children more aware of environmental issues.

An interesting initiative taken up by this youth organization was that of doing away with house boundary walls made of cement in favour of plant-based fencing, such as using the forget - me- not creepers. That their efforts have started paying off is obvious when one takes a quick walk around the village to see some of the houses that have implemented this visually appealing idea. The group believes that these kinds of initiatives may be small but can have great impact over time.







On being asked about their motivations for taking up environment protection causes, group members said that the village and its surrounding areas were being degraded by coal mining activities in the past. Some of the local youth decided to come together and form an organization to sensitize other community members to the importance of keeping their community clean and maintaining green cover so that the degradation could be stopped.

As with other nonprofit community organizations, the MYWO depends on funds from private donors or sometimes from governmental departmental schemes such as under the forest department or the sports and youth welfare department. Revenue earned from entry fees for parks or from sporting competitions held by the organization, goes to the village welfare fund. Money from this fund allows further activities such as cleaning drives and nature-themed competitions held during Christmas time.











For their civic innovation and tireless efforts, this youth organization was felicitated by the Institute of Natural Resources Management (INRM) on 9th June 2016 at the Green Volunteers' Conclave, which was organised as part of the celebration for the World Environment Day 2016, in the state.

At present, the youth in this group are focused on developing Lumtiniang Park as an ecotourism site, with further beautification activities. Lumtiniang Park has high potential as an eco-tourism site since it has multiple nature walk trails leading into the local forest, with some paths along the Lukha River as well. The organization is also planning further land-scaping work around local hill top sites which offer panoramic views of the East Jaintia Hills.

In a region where many community landscapes are spoilt by old coal mines and landfills, Mowtyrshiah village stands out as a green oasis testifying to the youth organization's years of work. These youth are indeed change makers in the environmental sector, spreading a message that is critical for the entire state today. Indeed, Meghalaya be transformed through the efforts of youth such as those of Mowtyrshiah village.

SMOKEY FALLS TRIBE COFFEE

Bringing High Quality Indigenous Coffee to the Masses









eghalaya, with its altitudes of over 4,000 feet above sea level across many places and a unique climate, has been producing some of the most distinctive tasting high quality coffee in the country. Commercial plantation of coffee is relatively new and limited in Meghalaya and dates back to 1954 when coffee gardens were first established by the Soil and Water Conservation (S&WC) Department at Umling in Ri-Bhoi district, Lumshnong in East Jaintia Hills district, and Tura in West Garo Hills district. Today, it is grown in about 6 districts across the state, covering a total area of about 300 hectares with an estimated yield of 200 metric tonnes in 2016-17.

Coffee is one of the most popular beverages around the world, with immense cultural importance in many societies. It is also a high value commodity whose cultivation, processing and export activities are key to the economies of many countries and provide a livelihood for a significant number of people worldwide. Building upon the growing popularity of coffee-based beverages in India, a small-scale coffee enterprise - Smoky Falls Tribe Coffee - has started in Meghalaya and begun making a name for itself. Sourcing whole beans from local plantations in Meghalaya, the enterprise roasts the beans to produce high quality ground coffee which is then packaged and sold through their online portal or directly at their cafe. The inspiration for the name "SMOKY FALLS Tribe COFFEE" is the numerous cascading waterfalls that are a characteristic feature of the landscape in Meghalaya

GENESIS

Smoky Falls Coffee was founded by Mrs. Dasumarlin Majaw and her father Mr. Dondor Giri Nongkhlaw. Hailing from the locality of Lawjynriew in the city of Shillong, Mrs. Dasumarlin traces her entrepreneurial journey back to her grandmother who used to bring coffee from her village, Tyrna, to Shillong to make coffee using the traditional method. This developed Mrs. Dasumarlin's own interest in coffee making but also the interest of her father, a retired government official. Thus, coffee making became a family passion and tradition.

Their coffee business took a new turn when Mr. Dondor decided to attend a training programme at a private institution in Bangalore and Chikmagalur. There he was able to acquire advanced knowledge on coffee production, processing and business management. Upon his

return, the father-daughter duo invested in a processing machine. They then identified coffee bean sources from plantations in the Khasi Hills, Ri-bhoi and Ri-War, ensuring that they got the required volumes but also good quality beans from a few select locations. In 2009, they started a coffee shop in Nongthymmai, Shillong, called "Black and White Coffee Shop". The shop sold a variety of coffee beverages including popular ones such as Cappuccino, Espressos and Latte. However, this shop ran only for a few years as demand for coffee beverages was low. Eventually, they decided to focus on selling roasted and ground coffee as a packaged product. This led to the establishment of "SMOKY FALLS tribe COFFEE" in 2015.



For setting up **Smoky** tribe Coffee, Mr. Dondor along with Mrs. Dasumarlyn had to go through the tedious process of obtaining permissions from various Government departments as the Food Corporation of India (FCI), Pollution Control Board, Taxation Department and also the Dorbar Shnong of Lawjynriew. Moreover, since all the machines used by them are imported from Bangalore, experts for repair and maintenance of the machine have to also be brought in from Bangalore at their own cost.



REVIVING A LOST TRADITION

Mr. Dondor explained that coffee plantation in the Khasi Hills has been practiced since long but lack of its documentation and lack of demand for coffee led to little current knowledge on indigenous coffee planting practices. One of the few sources of information today is a 1908 book titled "Coffee Cultivation in Khasi Hills" by B.C. Basu.

Smoky Falls Tribe Coffee considers its coffee to be fairly unique because it is not mixed with additional ingredients such as chicory; the coffee-chicory mix is the most widespread form of coffee available from Southern India. Today, Smoky Falls Tribe Coffee sources coffee beans from a number of locations including Syltham, Mawlatang, Umsning and Marngar. However, Tyrna still remains their primary source. Sourcing coffee from within Meghalaya comes with its share of challenges. For example, when collecting beans from coffee plants growing in the wild, pictures have to be used to help the collectors identify the plants. Over time, the engagement between Smokey Falls Tribe Coffee and the communities from which it sources its coffee, has led to greater interest in engaging in coffee planting and processing related activities.

From Farm to Table - Stages to preparing Coffee

Coffee *cultivation* is done in June

It takes 6 months for the beans to reach maturity, so *harvesting* is done in December

Harvested coffee is put through a *hulling* process to remove the husks

Grading is done to separate beans according to quality

Good quality coffee beans have *moisture content* ranging between 9-11%. Moisture content is managed through careful and controlled drying

Roasting (constant heating for a fixed time period) of coffee beans is done to bring out the aroma and flavour of the coffee bean

Grinding breaks the coffee beans into desired sizes which increases the surface area of the beans and hence the uniform percolation of water when preparing the coffee

Packaging of ground coffee is done using Food Grade plastic

During our discussion, Mr. Dondor emphasized that the entire process of coffee making is time consuming and requires constant attention to detail to ensure quality, from cultivation of coffee plants to the processing of coffee beans.

For example, infestation of *Stem borer* (insects that eat leaves) and *Leaf rust* (caused by air pollution) can result in huge loss of plants. For the coffee sold by Smoky Falls Tribe Coffee, Mr. Dondor encourages farmers to use organic fertilizers and engages experts to train farmers on how to pluck coffee beans.



To Mrs. Dasumarlin and her father, Smoky Falls Tribe Coffee is not just a business but a family tradition. They do not employ any workers at their workplace nor have they approached the government for any assistance. All investments into the business have been made personally by them.

Until recently, most of their coffee was being promoted by friends and relatives through word of mouth. In 2016 they started taking online orders for coffee and started promoting their coffee through social media and other digital platforms. Today, their coffee is sold to buyers from various locations across India including Gurgaon, Chennai and Mumbai. Their coffee is also sold in other countries such as New Zealand, South Africa, USA, Australia, Canada, France and Belgium.

For online customers, two varieties of roast - "Light Roast" and "Medium Roast" – and 3 grades of grind - Fine, Medium and Coarse – are offered. Prices ranges between Rs. 130 to Rs. 1,280 and quantity from 50 gm, 150 gm to 200 gm. In the future, they plan to add the place of origin of the coffee onto the label of each packaging, in order to bring visibility and create brand value around the coffee plantations of Meghalaya.

RECEPTION

Mrs. Dasumarlin explains that the reception to their coffee brand has been very encouraging, especially from seasoned coffee drinkers outside the country. For local people, the taste is not very appealing. But this could be attributed mainly to the fact that Meghalaya is not traditionally a coffee drinking state. Lack of proper brewing equipment and knowledge also means that most people who purchase their coffee prepare it in the same way as they make instant coffee, resulting in poorly prepared and ill-tasting coffee.

Mrs. Dasumarlin and Mr. Dondor hope however, that coffee culture will soon grow in Meghalaya, especially in Shillong..

In the near future, Mrs. Dasumarlin and Mr. Dondor plan to collaborate with the government to set up small cafe outlets in state tourist locations and at airports. This would allow them to scale their business and take it to the next level.

Smoky Falls Tribe Coffee uses both Arabica and Robusta varieties which are found in large quantities especially in the in the Ri-War area. They also use local varieties of coffee such as Coffee Khasiana and Coffee Bengalensis which grow in the wild.









Bindaram Momin is an apiculture farmer, well-known for making honey in Chitchotcheng a village in North Garo Hills. His honey is popular amongst the locals and this livelihood is presently his primary source of income. But back in 2006 he spent most of his time on his paddy fields, making a megre living by growing and selling paddy. His two daughters along with his three sons helped at home by collecting firewood from the nearby forests while his wife spent most of her time in the kitchen.

In 2006, Bindaram was approached by a Cluster Supervisor of the erstwhile Meghalaya Rural Development Society (MRDS) offering him an opportunity to be a part of new Self Help Group (SHG) to which Bindaram readily accepted. With the MRDS guiding him, he became a village level promoter in the same year. On seeing his dedication and enthusiastic participation in all activities of the SHG, the then Project Manager of MRDS made him a Cluster Level Supervisor overseeing activities under the project in over 25 villages.

In this new role, he quickly gained prominence amongst people in his cluster. He, along with several other cluster level supervisors, all hailing from North Garo Hills, was given a series of trainings at Balipara Aragaon in Assam, Rongram in West Garo Hills and Williamnagar in East Garo Hills, to enhance his basic managerial and Book Keeping skills.

In one of the trainings, Bindaram learnt about bee keeping and was taught how to make bee boxes. This intrigued him and upon his return, he decided to start rearing honey bees. Using his new technical skill, he constructed two bee boxes on his own for the very first time. Then along with his friends, explored a nearby forest in search of Queen Bees and was able to find and catch two.

Fast forward six months later and Bindaram has extracted his first honey.

Bindaram uses two types of bees. The Apis Cerana and the Stingless bee.

Apis cerana is a species of honey bee found mostly inChina, Pakistan, India, Korea, Japan, Malaysia, Nepal, Bangladesh, Papua New Guinea and Solomon Islands. They are known to be an excellent pollinator of many crops including: spice crops, oilseeds, cauliflower, fruits, nuts, onion etc.



(source: Wikipedia)

Stingless bees visit around 1,500 flowers a day to collect honey. Beekeepers keep the bees in a bee box as this makes it easier to control the hive. They generally are not aggressive and they can be kept as pets.



¹The erstwhile MRDS was a state project supported by the International Fund for Agriculture Development (IFAD) whose primary objective was to promote livelihood opportunities of vulnerable groups in a sustainable manner.



At first, the thought of selling his honey did not cross his mind and he mostly used the honey for his own consumption. Sometimes he would share it with his relatives and neighbours. But as word about his honey spread, the people in Chitchotcheng village started approaching him for honey. In Meghalaya, honey is not only used for consumption but also as a beauty product, and for its health benefits. It soon struck Bindaram that this activity might potentially provide him with extra income, and so he set out to pursue this opportunity. Within a few months, his customer base grew exponentially. Many of them came from towns in neighbouring districts including Tura, Williamnagar and Bajengdoba.

On seeing his progress, MRDS inducted him as a Master Trainer and Model Bee Keeper to inspire and train other potential bee keepers in the state. In 2012, as the MRDS was wrapping up, its employees introduced him to the Integrated Basin Development and Livelihood Promotion Programme (IBDLP) at the time when it was just launched. The Meghalaya Institute of Entrepreneurship (MIE) under this programme noticed Bindaram and identified him as a progressive bee farmer. He was invited to register with MIE during one of their workshops conducted by the renowned Prof. L.R Verma, one of the leader of the Apiculture Mission in the state under the IBDLP programme.







In the same year, MIE in collaboration with the Commerce and Industries Department sent Bindaram and four other farmers to the University of Agricultural Sciences in Bangalore for advanced training on Bee Keeping where he gained further knowledge on bee keeping methods including how to segregate bee colonies. Using this new technique, he was able to create 62 bee colonies for himself.

With his reputation growing, one of the Border Area Development Officers (BADO) approached him in 2014 and invited him as a resource person to impart training to other farmers at the Raksamgre Training Centre, to which Bindaram accepted. During the training he also assisted the Officer in making bee boxes. Bindaram made 150 bee boxes and each box sold for Rs. 1,500 against a manufacturing cost of Rs. 1,000. In return, the Officer gave him 10 bee stands as a token of appreciation.

Similarly, the Department of Commerce and Industries on learning about Bindaram, invited him to participate and assist in a workshop on apiculture that was held at the Rural Resource and Training Centre (RRTC), Umran for a week. The training was attended by 30 master trainers.



A Bee colony comprises of the Queen Bee, Drones and the Worker Bees.

The Queen Bee is a single reproductive female in a colony of honeybees.Her main purpose is to work as the reproducer.

A Drone is the male bee of the hive. Drones play an important role as their primary function is to mate with the Queen.

Worker Bees are the labourers of a beehive or colony. They are responsible for gathering food, protecting the hive and caring for the young bees. Worker bees are the only bees that can sting.



The traditional bee box



The modern bee box



These have been developed in collaboration with the Commerce and Trade Industries which in turn has significantly reduced the cost and accessibility for Apiarists including Bindaram.

By the end of 2014, Bindaram's 62 Bee colonies were producing 250 kgs of honey annually which he extracts twice in a year - October to November being first season and December to May being the more productive second. Bindaram's bee keeping business was thriving but what transpired next was completely unforeseen as tragedy struck Chitchotcheng. On 22nd of September after 24 hours of incessant rainfall, a flood broke out in Chitchotcheng and all areas in its vicinity. The water level rose so high that all his bee colonies were washed away in the flood. The very next day as water levels receded, he quickly searched the area to retrieve what was left of his bee boxes and after an entire day of searching, he could only save 24 boxes. The rest of the boxes and all the bee colonies were lost.

This was a big blow for Bindaram who had spent years raising his bee colonies which were also his only source of livelihood. With no options left, Bindaram went back to nearby jungles hunting for Queen Bees. Slowly, with dedication and perseverance, he was able to restore 27 bee colonies.

Today, Bindaram has a farm of 30 bee colonies. With further support from the Basin Development Unit (BDU) in North Garo Hills District, he has been able to package and label his honey which has added significant value to it. Bindaram packages the honey himself but takes the support of the Basin Development Unit (BDU) under the IBDLP for labelling. A 300 gm. bottle of honey sells for Rs. 100. His 30 colonies produce about 100 Kgs of





honey in a year from which he earns about Rs. 30,000. He hopes this will improve his income from bee keeping.

In addition to selling honey, Bindaram has also started selling honey extractor tools. In a recent exposure visit to Dimapur, he sold Rs. 1,500 worth of tools.

For now, Bindaram is content with beekeeping, adding that it is sufficient to support him and his family. In the future, whenever he gets financial assistance, he hopes to diversify his livelihood activities and maybe take up piggery and poultry as well.

Under MRDS, Bindaram had attended several trainings including:

- Book Keeping and maintaining of accounts;
- Bee Keeping;
- Mushroom cultivation training and
- Pickle making training.

Bindaram's wife and one of his daughters also attended a Pickle making training held at the Bosco Reach Out under Resu block, North Garo Hills for a week. Till date, they are continuingly making and selling seasonal fruit pickles like jackfruit, mangoes etc. including vegetables, and pickled meat like chicken and fish etc.











Gokulgre village which is located in Resubelpara Block of North Garo Hills District. North Garo Hills is a relatively new District that was created only in 2012. Its economy is mostly agrarian or rural based and horticulture is a key sector where most people are engaged in. In the past, North Garo Hills has had to grapple with various developmental challenges including inadequate road connectivity, lack of proper communication facilities and poor access to good medical services. However, despite these challenges, Kreseni has been able to work her way into becoming a very successful entrepreneur in her district.

Kreseni is the youngest of five siblings. Her parents were farmers and depended on daily wage to support their family. The family faced severe financial constraints and because of this, Kreseni had to drop out of school just after completing class eight so she could find work to support her family. Kreseni has always been passionate about growing flowers so she chose to setup a flower nursery as a livelihood activity.



The Knowledge Management Unit of MBDA met with Kreseni in January 2017 to listen to her story. At our first meeting, we found Kreseni to be an energetic and motivated person and she was extremely enthusiastic about sharing her stories and experiences with us. During our conversation, she recalled the days when the Meghalaya Rural Development Society (MRDS)¹ was still active. She was already a member of a Self Help Group (SHG) at her village when she was informed about being selected for training in horticulture under MRDS. In March 2012, she along with members of other SHGs from the state, were sent to Sonapur in Assam for 15 days to be trained in Horticulture. This was the first time that Kreseni was given training in a livelihood activity. The learning and the experiences she gained from the training had a profound impact on her. She realised that cultivating flowers was something that came naturally to her and that she was good at it and since this is an activity that she has always loved, she eventually decided to pursue horticulture as her primary livelihood activity.







Soon after the training, with financial support from MRDS, Kreseni bought a water pump, a water storage tank and some saplings. Using these, she set up a nursery at her own home. Once these saplings started flowering, Kreseni took them to the weekly Gokulgre Friday market where she sold each potted flower for Rs 700. On other days, she sold them on the roadside along the Guwahati-Tura highway. Over time, she became very popular with the neighbours. Travellers who frequent the highway began to notice her flowers and soon she had many customers who would stop by just to buy flowers from her.

In 2014 Kreseni was introduced to the Meghalaya Basin Development Authority (MBDA) by former MRDS staffs who informed her that she could get further support to scale up her work. In October 2014, she registered herself at an Enterprise Facilitation Centre (EFC) in Resubelpara and soon after she was sent for a 15 day training to Solang in Himachal Pradesh with support from the Integrated Basin Development and Livelihood Promotion Programme (IBDLP) in collaboration with Horticulture Department. Upon her return, she availed funds of Rs. 1 Lakh from Horticulture Department to scale up her activity. Using this fund, she first diversified her flowers, adding Daffodils and Orchids to the inventory. Next, she rented half a Bigha (approximately 600 square metres) of land along the Guwahati-Tura highway and there she set up a new flower nursery. She engaged four daily wage workers who spent four days to clear the land and build a fence around it. It took another four months before the nursery had its first production.

Today, Kreseni produces more than 2,000 seasonal as well as non-seasonal saplings including flowers, fruit trees, nuts and others.





Saplings grown by Kreseni

Flowers:

Marigold
Begonia
Australia Ampish
Gold Christ
Jeremiah
Petunia Eliza
Thuja
Hibiscus joba
Liliam
Dahlia
Lily
Starbright

Fruits and nuts:

Mangoes Oranges Betel nut Coconut



Nursery Management

Kreseni gets her fruits and flower saplings from the Daffodil Nursery in Guwahati. She travels to the Daffodil Nursery once a month but during peak season her travel increases to two or three times in a month. She transports the saplings back to her nursery using a rented truck.

Kreseni does not use chemical fertilizers in her nursery. Instead, she uses cattle and goat manure which she mixes with mud. She purchases the manure at a low price from her own village but sometimes from neighbouring villages as well.

Process

- As soon as the saplings arrives from Guwahati, Kreseni removes the plastic cover and moves the saplings to new Polly bags containing either cattle or goat manure.
- Kreseni waters her plants at least once a day but the frequency may change depending on the climate, soil moisture and humidity. The type of flowers grown also determines the frequency and quantity of watering. Some flowers need more water while others do not.
- Once a week, Kreseni replaces the manure of those flowers and saplings that remain unsold.



Pest Management

Pest infestation is low at Kreseni's nursery since most of the plants are sold before flowering and hence attract little insects. For the few that remain unsold, Kreseni still relies on chemical based pesticides to control pests, but she is exploring more eco - friendly, natural pesticide, to use at her nursery.

In 2015, the Bio-Resource Development Centre (BRDC) under IBDLP sent Kreseni for training at Upper Shillong. Again in 2016, she went for further training at the Bakdil Walbakgre Training Centre where she learnt how to make carry bags, dry craft floral cards, slip boxes etc.

Using the raw material provided to her by BRDC, she made 700 dry craft floral cards and 50 carry bags which she sent back to BRDC and was paid Rs 50 per card. She also sells up to 150 cards per day at various festivals and events in and around Tura. At Shillong, the demand was higher for slip boxes (a kind of pouch, akin to a pencil box). Kreseni could earn up to Rs 24,000 in one festival by selling handicrafts. However, beyond the festivals, she was not able to sell much.

Kreseni married Becken Sangma in 2001, and today they have two sons who are studying in a good missionary school in classes 6 and 12 respectively. She and her husband have since hired a helper to help with their business. Her two sons too help as soon as they are back from school.

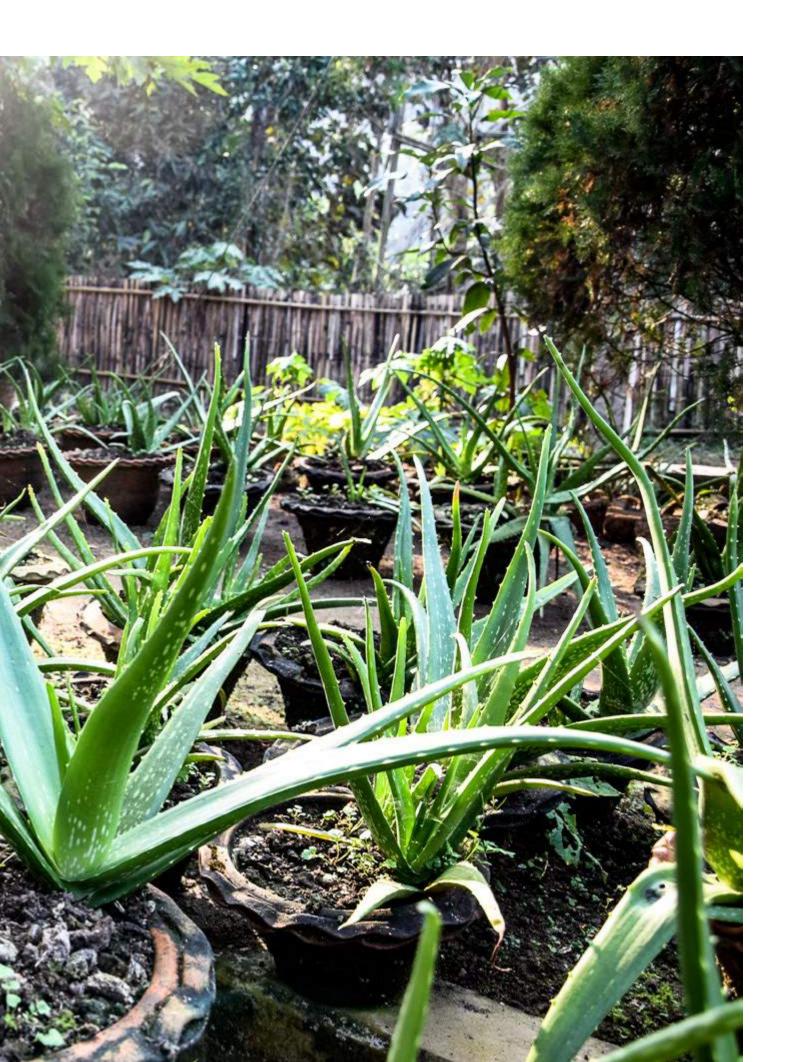
Presently, Kreseni earns a profit of approximate Rs. 70,000 per year from her nursery. She is quite happy with the way her business is shaping up and she firmly believes that she can take this profession to new heights. For now, she plans to stay focus and give all her energy to her flower nursery and her family.











💙 hri Layland Marak is an entrepreneur from Ganolgre village under the Rongram Community and Rural Development (C&RD) Block, West Garo Hills, who is engaged in a unique business of processing and sale of Aloe Vera products through a Self Helped Group (SHG) named Chizingjang. Aloe vera is a tropical plant which is widely known for the range of health benefits it offers. Layland is considered a pioneer by the people of his village and is attributed to be the driving force behind the Chizingjang SHG and its aloe vera business. Many vouched by his excellent leadership skills and praise him for his commitment and contributions towards the development and transformation of Ganolgre. Today, his efforts have taken the SHG to new heights and he hopes to create more opportunities to support his fellow community members so they too can achieve their dreams.



Early Life

Layland is the fifth child of seven siblings. His parents were farmers. Tragically, Layland lost his parents when he was still very young. This unfortunate incident changed his live completely. This would be the last time the siblings would ever lived together under one roof. Having no one to look after them, they were left with no choice but to moved from the village to stay with their relatives elsewhere. Layland moved to Williamnagar while his other siblings moved to other locations wherever their relatives could offer a home.

At Williamnagar, Layland excelled at school and showed keen interest on pursuing higher education. After matriculating, he move to Tura and completed his 12th standard from Government College, Tura. He then got himself enrolled for a Bachelor of Arts (BA) degree. Unfortunately, tragedy struck again. During his second year in college, he contracted an eye disease and had to undergo surgery. This occurred right before his final examinations and he was unable to appear for it that year. However, he did not lose hope. He was determined to reappear for the examination in the coming year after recovering from the disease. Sadly, his eyesight continued deteriorating and eventually Layland had to discontinue his studies altogether.

Finding a job after this was tough. Without a college degree, there were only a handful of jobs that he could apply for and these always had huge numbers of applicants to compete with. But he never gave up and his perseverance eventually paid off when he secured his first job as a school teacher at the Jengjal Primary School, West Garo Hills in 1995. Through this job, he was able to support his two sisters and pay for their education. He supported them for five years until they too found work and became financially independent. Layland married in 2000 and today is a father of four children.



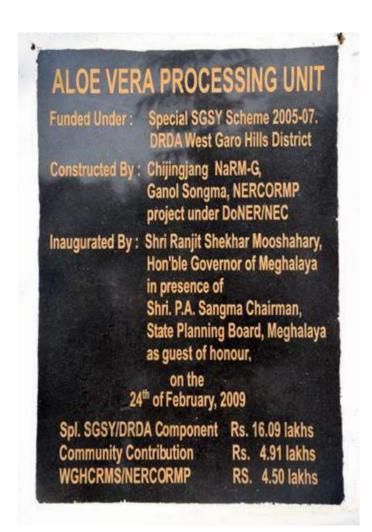
The Chizingjang SHG:

On 2nd October, 2002, at a time when the North Eastern Region Community Resource Management Project for Upland Areas (NERCOMP I) funded by the International Fund for Agricultural Development (IFAD) was in its initial phase, Layland was selected to be one of the members of the newly formed Self Help Group (SHG) named 'Chizingjang', and also to be a Community Organiser under the Natural Resource Management Group (NaRM-G) formed under the project. In the same year, he was sent for training on Book Keeping at the Ganolgre Community Hall. Again in 2003 he was sent for training on Livestock at Tura. Today, Layland is a key member of the Chizingiang SHG responsible for driving the activities of the group which comprises 78 members.

In 2004, the SHG purchased 4 buses which they used to ferry passengers between Asanang and Tura. However, they stopped this business after 4 years because it was not making enough profits.

Other than this, the Chizingiang SHG did well with other activities under the project and this was noticed by NERCOMP which decided to organised a two-day training on Aloe Vera at the Ganolgre in 2006. Six months later, the SHG received 40,000 saplings from an Aloe Vera training institute in Karnataka. But after planting the saplings, the SHG had to put the activity on hold as they did not have technical expertise for processing the Aloe Vera. It was only in 2008 that the business was restarted with the laying of a foundation stone for a new Aloe Vera processing factory by the Deputy Commissioner of West Garo Hills. The new factory comprised machinery which includes juicers, charmers, cutting tables, filling machines, sealing machines etc. which were obtained with the efforts of Layland, under a special scheme of the government of India and the District Rural Development Agency (DRDA).





Funding for the Aloe Vera Processing Unit

The processing unit was built using funds from a special Swarnajayanti Gram Swarojgar Yojana (SGSY) - DRDA scheme which was introduced in the year 2010 and channelized through the NERCOMP project. IFAD contributed 10% towards the building of the processing unit, the community contributed 30% for building infrastructure and supply of boulders, chips, etc., and the remaining amount was funded through the scheme.

The factory was set up in three phases -

First phase - Building infrastructure started in 2007 and was completed in 2009 and the amount received was Rs 6.60 Lakh

Second phase - Juice and gel extraction machines were set up in 2010. The technical officer assigned for the project along with Mr Layland went to Delhi to purchase the machine which was worth Rs 7 lakhs.

Third Phase - The soap processing machine was purchased from Global Biotech, Gurgaon for Rs 10 Lakhs.



Processing of Aloe Vera Gel and Juice

Raw Material

- 1. Aloe Vera plant
- 2. Sodium Benzoate
- 3. Citric Acid
- 4. Bottles

Raw materials are collected from nearby villages including Galwanggre, Domitikgre, Sropgre, Aranggre, Rengsangre, Darechikgre and Selbalgre from Babadam area. Raw aloe vera is purchased at the rate of Rs 8 if the factory employees pick it up from the village themselves, and Rs 10 if the villagers deliver the aloe vera to the factory.

Processing

Gel

The raw aloe vera is cut in long rectangles and skinned on all sides so as to expose the transparent gel for extraction. 1 kg of transparent gel can be extracted from 4kgs of aloe vera.

Juice

The juice is prepared by boiling the extracted gel at 80-90 degrees Celsius in a heater and then allow to cool. Once the temperature falls to 60-70 degrees, citric acid (1.5gm/L) and sodium benzoate (0.5gm/L) are added to the gel to act as preservatives.

The boiled aloe vera juice is stocked in a tank for 15 days. After 15 days, testing of the stocked juice is done with the help of PC meter to determine if the product is fit for consumption. The tested product is filtered, bottled and ready for sales.

Price for Gel

Maximum Retail Price - Rs. 100 per litre Whole sale price - Rs. 80 per litre

Price for Juice

Maximum Retail Price - Rs. 200 per litre Whole sale price - Rs. 160 per litre





Processing of Aloe Vera Soap

Raw Material

- 1. Aloe vera gel
- 2. Coconut oil
- 3. Glycerine
- 4. Scent extract
- 5. Natural or synthetic dyes

Processing

Coconut oil is imported from Ahmedabad in the form of solid chalk. This is ground in a mixer. Aloe vera gel, scent extract, glycerine and dye are added to the mix. The resulting dough is rolled in a rolling machine to form a thin layer which is then compressed by hand and then kept in a heater at 70-80 degrees Celsius turning the layer into a large cylindrical mass of soap. This is allowed to cool.

When the temperature drops to lower levels, the soap is cut into the desired size for moulding. The cut pieces are kept in a mould and manually pressed to get the desired shape. They are left to cool for 5-15 hours. The cooled soap is then wrapped in chart paper and packed in boxes for selling.

Price

Maximum Retail Price - Rs. 30 per piece Whole sale price - Rs. 25 per piece





Marketing of Products:

For packaging, bottles are purchased from Kolkata, Siliguri or Guwahati and boxes for soaps are purchased from Kolkata. Packaging and labelling is done manually by a staff comprising 3 people. The Market Coordinator and Business Development Officer from NERCOMP supports with marketing of the product through the project.

The SHG sells its products at a store called Durama cave which is located at the Tura Super Market. They also sell at their factory. Customers include locals and tourists who are aware of the benefits of aloe vera. The SHG also supplies to local pharmacies and retailers.

Key challenges faced:-

- Raw material is not available locally and has to be bought from Ahmedabad or Kolkata which is expensive.
- Advertising aloe vera products is challenging and it takes time to get consumers to buy it .Packaging bottles and boxes has to be bought from Siliguri, Guwahati or Kolkata. Good quality packaging material is not available locally.
- Branding of the products is a challenge to the SHG due to lack of knowhow
- During monsoons, the factory suffers from frequent load shedding that hampers production.
- When the machines break down, spare parts are difficult to obtain and have to be bought through agents from other states.
- Due to misunderstandings the SHG sometimes faces social challenges including rumour mongering. Sometimes community members would attempt to discourage and discredit the SHG instead of encouraging it which affect the morale of workers.

Presently, there are fifteen people employed at the factory. The SHG also has a driver, a salesman and a chowkidar. During peak season, the factory manufactures upto 500 bottles of Aloe vera juice, 500 bottles of aloe vera gel and about 500 pieces of soap per day. However, this production is seasonal and depends on availability of input material and other resources. Depending on quantum of work, Layland would from time to time hire a few extra people to help with the cleaning, washing and cutting of the aloe vera for a daily wage of Rs. 200. The annual revenue from this business is approximately Rs. 7 lakhs. Under the initiative of Layland, a portion of this income is used to help the community through the construction of culverts, roads, public toilets etc.

Today, Layland is a renowned member of the community. His achievements are there for everyone to see. From our meeting with him, it is clear that the economic development of Ganolgre has and always will be foremost in his plans, and he has been vocal about the challenges which he has faced and the learning from them. After seven years in the business, he strongly advocates for transparency and good governance adding that these will be the pillars for positive change in the society.

Other Activities of Layland

Working as a Master Trainer

While the aloe vera processing unit was being set up, Layland spent a significant portion of his time honing his skill and understanding aloe vera by participating in various workshops organized by IFAD both within and outside the state. Upon returning, he made sure to share his experiences with other members of his SHG and with the community, and to a apply this new knowledge on processing of Aloe Vera.

As his practical knowledge on aloe vera increased, Layland eventually became a master trainer, imparting training to other aspiring entrepreneurs who wishes to start work in aloe vera. In 2012 Layland was invited to give practical training to farmers at the Senapati district of Manipur. Later that year he was invited to provide training to aloe vera farmers at Raipur Chhattisgarh.

In 2016, IFAD in collaboration with the North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC) together with the District Commerce and Industries Centre invited Layland to be a part of the international trade fairs held in places like New Delhi and Mumbai, being recognised by NERAMAC as one of the up and coming organic farmers in the state.

Livestock and Fishery

Layland's determination did not end with aloe vera and his SHG. When he was attending various trainings on aloe vera, he also attended those on livestock and fishery.

For fishery, he also approached the Fishery Department in Tura, West Garo Hills for support. Using their support and the knowledge that he has accumulated, he started his own fishery business by building a 1,800 square feet fish pond. Unfortunately, this business did not do so well and the fishes have largely remained unsold. His livestock venture on the other hand, is doing well. Layland currently owns four Jersey cows that produce 7 to 8 litres of milk per day. He sells the milk to dairy farms who in turn sell it at Tura. He offers a percentage of the proceeds to his family.







NOTES



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