



Innovative Thinking about Mountain Agriculture Development: New Age Himalayan Farmers show the Way

TEJ PARTAP, PI, IMI-FAO project

“We see in these farmers’ stories a common message of interest to each one of us, and each one of us can find our niche to play a role, which leads to making a bigger story like Amul. IMI would like to adopt a collaborative approach to take this initiative further with willing partners”.

-Sushil Ramola, President IMI




Integrated Mountain Initiative

F 5, Kailash Colony
New Delhi - 110048
Ph: 011 - 40193747

E: progcoordinator@inmi.in
W: www.mountaininitiative.in
i: IMI_Info



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Stories of New Age Himalayan Farmers revealed evolving pathways leading to transforming mountain agriculture based livelihoods and the challenges of mainstreaming the idea.

The New Age Himalayan Farmers- who are they?

There are rare cases of individuals or groups, across the mountain states, who are doing extraordinary things in farming to show the way in which farming can be a promising proposition. The actors-- 'new age farmers', are using extraordinary ways to overcome limitations of small farm size and limited production. They come from all kinds of backgrounds; educated youth from farming families, engineers, professionals, company executives, scientists and many others. Therefore, to gather knowledge and information for understanding the **emerging concept of new age farmers** and learning from their experiences the challenges and opportunities for mainstreaming the idea, a workshop program was designed. The workshop was organized on November 29-30, 2017, to which representative new age Himalayan farmers, with their unique models of agribusiness, from across the Himalayan states, J&K, Himachal, Uttarakhand, Sikkim, Arunachal, Kalimpong, Nagaland and Mizoram, were invited to speak about the perspectives and experiences of their extra ordinary initiatives.

Listening to them and analyzing their perspective and experiences were, seasoned policy experts from farm sector organizations and farm universities.

Hearing from New Age Himalayan Farmers

For the new age Himalayan farmers, one thing in common, was their knowledge and innovation based approach to farming. Their engagement with farming was not for survival alone, nor did they see it as an unprofitable vocation. They have taken it as a profession that they aim to make immensely profitable as a good job/ agribusiness for themselves and several others who get associated with them. The stories of these individuals, offer a glimpse into the new generation of farmers and how there is a shift in farmers' behavior towards selecting niches, production processes, managing supply chains and marketing and aiming at higher economic returns from farming. Not only that, innovations in collectivization in farming, value chain development and marketing, is emerging as a necessary mechanism to enhance power of other small farmers.

The old apple orchards of Kashmir have been raised from seedlings and give maximum yield of 7-10 t/h to the farmers. Quality fruit is about 35%. The traditional postharvest chain is too long and nonvalue added, resulting in wastage of 25% of fruit and loss costs 32% of expected returns. FARM2U, a dream project of a Kashmiri agribusiness entrepreneur, is a blue print of



paradigm shift in the way apple farming will be done in Kashmir. Intervention areas of FARM2U, have been carefully selected from among the key constraints that apple farmers of Kashmir are facing; such as problem of old orchards, low yields, planting material, poor grading practices, cold storage and branded marketing. FARM2U expects to increase productivity of apples up to 35-40 t/h, bring down wastage to 25-13%. FARM2U, estimates that with efforts like there's, by 2031, Kashmir will help India produce average of 6.7 million MT apples, up from 1 million MT, more than six times the present production of apples annually, upscaling apple economy from Rs 5 thousand crores to 45 thousand crores (with additional gains from improved quality)

“I thought no one was talking about transforming mountain agriculture in Sikkim, the way it should have been, so two of us brothers decided to take the initiative ”.
-Abhinandan Dhakal

Shoten network, an agribusiness co. set up by two Dhakal brothers, few years ago, aims to help raise farm income of hill farmers of Sikkim who have been cultivating maize, millets, pulses and paddy. Shoten network started with two crops; i) YACON an Andean tuber

crop, and ii) Shitake mushroom. Their business model is to maintain crop material, supply crop material, provide guidance on growing with buy back guarantee, and invest in processing and marketing. The network strategy is designed to counter the constraint of farm size of mountain farmers. Shoten network is doing a successful agribusiness through building backward linkage with farmers for growing the crop and managing forward value chain by themselves. Yacon being a new food crop to the Himalayas, the challenge for Shoten group is about popularizing it as nutritious food. They are processing and marketing its products as breakfast food. Hotels and restaurants in Sikkim have been made partners in popularizing the products of yacon tuber. Shoten's grouse, however is lack of access to technological support services. Even while there is lot of political good will in favour of the Shoten network, but lack of R&D institutional facilities in the state makes it expensive.

Sudhir Chadha has an established floriculture agribusiness and imported fruit plantation, He has set up training facility for floriculture where he invites, aspiring youth and horticulture students from universities for season-long hands-on training. The agribusiness of Sudhir Chadha, located in the foot hills of Uttarakhand



Arunachal Spices Co. of Chow Amat Namchom from Arunachal Pradesh, aims to build a king chilli flavoured Arunachal Spices brand- Amat. With initial hiccups, his Arunachal Spices Co. is now growing its domestic and export portfolio. His current concerns for further growth, include developing marketing linkages, setting up a manufacturing company, developing products, and assistance in B to B meetings. Organic Kiwi wine Co. “NAARA-AABA” of Rita Tage, the daughter of Apatani tribal farmer of Arunachal. She returned to the village after agriculture engineering degree and planned for organic Kiwi wine “NAARA-AABA”. Her village was full of Kiwi orchards with the fruit being in abundance. But, it was fetching very low price and farmers were not able to sell their whole produce. She worked on the plan and her efforts bore fruit and on October 26, 2017, when she launched her ORGANIC KIWI WINE “NAARA-AABA”. She calls her NAARA-ABA organic kiwi wine, a farmers pride and consumers delight”. Her concerns include, lack of skilled service providers, assistance in export promotion and cold chain. Technological assistance for managing kiwi orchards well, including managing pollination for enhancing fruit quality and production.

Himalayan Research Group (HRG) led by Dr Lal Singh, Himachal Pradesh, uses scientific knowledge and skills, to build a unique model of a business cum social enterprise, that he runs with his colleague scientist. Concerned about the continuing poverty of his fellow villagers, who were doing rain fed mixed farming, he used his research and technology background for mushroom cultivation by the local households of June valley, trained them in mushroom farming, and helped them set up their mushroom farming facilities. HRG managed both supply of mushroom spawn and compost to the farmers, with no payment. Input costs are deducted later from the earnings. In these 20 years, HRG’s mushroom agribusiness, essential oils and medicinal plants farming has changed lives of many households. The combination of non-conventional options for local farmers would not be possible without technical and marketing help of HRG.



Ram Lal Chauhan, an apples and pears farmer, is an envy of all fruit growers due to very high economic returns (by mountain farmers' standards). He learnt the art of producing high quality fruits by rejuvenating his old orchard. Among the fruit famers of Himachal, he is known for his very high average annual returns (Rs.1 crore to 1.5 crores) from his two hectare orchard. Import of technology and planting material which he picks up regularly by visiting orchards and nurseries in USA and Europe. His Ram Lal brand fetches a premium price in the market. He is a source of inspiration, envy, final goal, training guide and demonstration site, supplier of bud wood bank of new varieties, as well as a consultant on how to rejuvenate old orchards with new varieties of apple and pears for better quality, production and marketing.



near Nainital is a registered floriculture and fruit planting material training cum supply firm. He also provides consultancy services to farmers for establishing modern high density apple orchards.

In Kalimpong, **Bishnu Chhetri** leads 18000 small farmers grouped in 240 clubs, who have come together for collective good. They have collectively created an enabling environment for harnessing the opportunities to save themselves from non-viable farming and threatened livelihoods. The first initiative of this Sangathan was saving the native siri-cow from extinction. The second initiative was collective action for reviving the orchid farming through collection, conservation and cultivation of indigenous species of orchids. Farmers collected over 130 species of wild orchids and Sangathan planned and managed there commercial farming, value addition, supply chain management and marketing. Many other projects run by the Sangthan aim at reversing the trend of non-viable hill farming into profitable agribusiness propositions.

Zaikima's Mizo Youth Initiative (MYI), a producers company, brings small farmers together to enhance their collective capacity to do something they would not be able to do alone for transforming their traditional hill farming - Jhum cultivation. He provides leadership for collective action by the shifting cultivators of Mizoram. It has created an enabling environment for enhanced opportunities for improving their subsistence livelihoods through commercial farming ventures such as Anthurium, organic vegetables production and livestock rearing.

Naga Foundation of Sethrichem in Nagaland plays role of an NGO as well as Farmer Producer Organization. It aims to transform the lives of shifting cultivators in Nagaland by replacing Jhoom farming to permanent agriculture systems using horticulture, agro forestry and tree farming as options. It is leading an enterprise on farm home stays and innovations in weekly markets for better benefits.

Deliberations led to drawing following conclusions

- Expert resource persons, having listened to the stories of new age farmers, deliberated on the messages emanating from the experiences shared, and observed that, "Probably academia is so used to painting gloomy picture of mountain agriculture making it believe that it can never be a profitable



venture. However, the stories of these new age farmers showed that there is a way for a positive hope. We learnt from these farmers that mountain agriculture has a future but for that you need different kind of farmers". Presently, knowledge deficit exists. As readymade knowledge is not available for mountain agriculture, it calls for a differentiated approach.

"We must recognize that time has come to recognize the professional skills of these new age Himalayan farmers. There is need to consider them for a new role, even as Farmer Professors in farm Universities".
-Dr RB Singh, Ex-President NAAS

New Age Farmers perspective can be a new way of reviving farming in the mountain areas, and can serve as fountainhead for agri-entrepreneurship by looking at how farmers envisioned, innovated and executed their new age farming strategies.

"Listening to experiences of the new age farmers, one point is clear, that the sad scenarios, we are so used to painting 'rona dhona', about mountain agriculture and farmers; is not actually so bad. These case examples highlight that there are several bright spots of transformation".
-Dr PK Sharma Vice Chancellor, SKUAST Jammu

- The messages emanating from the stories

indicate that it is no longer a one man's job to lead the transition to a successful transformation of mountain farmers and farm-based livelihoods. From single farmers to collective efforts for profit-making, the stories offer a fine range of examples to scale up the non-viable farm economy of small mountain farmers to that of promising viable farming economies. In this context the important point emanating from stories is that the key area we have to learn a lot, in order to succeed, is "**collectivization**". It will be a buzz word of future farming strategies for the mountains. For achieving success **mountain agriculture is no longer a single person business but requires cooperative approaches** of all kinds to evolve several models. One of the major changes in mountain farming systems is about transition from subsistence systems to commercial systems, promoting fewer commodities and fewer production systems, which is in total contrast to the diversity of traditional farming systems with huge diversity or wealth of commodities. The consequences are; i) the value chain is long, by and large, ii) implications of environmental impact are high, iii) there are weak organizations w.r.t. agriculture, social technology, organizational technology and innovations.

- From the niches view point, the new age apple farmers' stories were impressive because this niche crop leads the fruit econo-



"I am not asking for subsidies, but only if trade and transport bottle necks (policies and regulations) are taken care, and technological backstopping facilitated, we young entrepreneurs can work wonders".

**-Chow Amat Nam Chom, prop.
Arunachal Spices, Namsai Arunachal**

my of the Himalayan region.

"From the meeting, let us take this message that around us there are success stories of promising ways to farm in the mountains, but they find no platform as yet to share and learn from".

**-Dr RB Singh,
Ex-President NAAS, Chancellor, CAU**

- In an environment with weak perspective thinking, policies, and appropriate technologies for mountain agriculture, experts viewed, will increased focus on markets for increased farmers' income help bring meaningful change towards new age farming? Institutional interventions, whenever they happen, focus on the need for science-based initiatives which should help in increasing farmer's income by linking them with markets. Since it is a subject for further debate, it is important to continue platforms like this one. Threatened farming cultures, be it yak and pashmina based pastoralism in Ladakh and Sikkim, or food grain based mixed farming in Uttarakhand hills, all are indicative of mountain farming communities. They see no hope and find escaping a better way to cope rather than confronting the situation. Fall out, degeneration and extinction of farming cultures and agroecosystems will have a bearing on larger mountain society and mountain ecosystem.

Implications for follow up

- Mountain agriculture should be a knowledge initiative, in which revival of mountain agriculture through entrepreneurship or call it new age farmers, can be focused on identifying niches for (a) Fruits/Apple/Floriculture, (b) Agri-tourism & (c) to create value addition with success stories, like Amul. We need to **approach agriculture as an industry or agribusiness, rather than solely harping agriculture as our culture or way of life**. There has to be a shift in thinking, leading to a new paradigm of farm policies, and creating an enabling environment for new approaches to succeed.
- There is new ray of hope but to mainstream it we need to keep innovating new technological and institutional options, leading to building a basket of options, in which there is something that meets the requirements of every mountain farming community.
- Thinking of green economy and new age farming, public policies and interventions need to ensure two things; firstly, green notes coming out of new age farming. This means promoting use of such technologies and practices which confirm to green economy perspective. And secondly, to change the mindset of 'charity for farmers' to that of new age farmers looking to earn a decent living, initiatives must facilitate



**“The theme highlights a paradoxical situation, where is the new thinking coming from; it is the new age Himalayan farmers instead of the think tank, having responsibility to do so”
-Dr. Vincent Darlong,
Vice Chancellor.**

ways to link farmers to markets. **The age old subsidy culture in farming has to give way to incentives approach** by rewarding those who take the risk to experiment and succeed.

- There might be still better options for many specialized mountain agroecosystems that remain unexplored. Since farmers are doing what they can do, it is imperative for public interventions to be put in place facilitating
- R&D support services for new age farmers. Currently, this is not happening but should happen, i.e. the total value chain approach in new age farming approaches that are evolving.
- It may be prudent to recommend to IMI to do more research on the issue of apples becoming the back-bone of leading the economy of the Himalayan states.

Counting bottlenecks to promote new age farmers concept, planning and strategy building are weak areas of the Indian Himalayan states. We simply have poor institutional capacities for it. Therefore, the challenge is for linking capacities horizontally, everywhere, in universities, in governments and their line agencies. **Recommendations for follow up.**

- We must recognize that our institutions and people charged with agriculture development in the Himalayan states face a paradoxical situation that can be better explained by the phrase “sceptic tank vs think tank”. There is a need to identify sources of new perspectives, such as, new age farmers instead of think tanks. As a result, the support systems in place are not able to provide the right kind of support needed by the hill farming communities. There are several government departments involved in sectors concerning farmers but there is no single window for serving the farmers. It is therefore, difficult to imagine whether we have systems in place for helping farmers, or poor farmers who are made to sustain the farming systems. Under these circumstances, it is imperative to create an enabling environment for the kind of platform needed to promote the idea of new age farming and farmers, and for that **the flattening of hierarchies in our institutions will be a key factor.**
- The experiences of the new age Himalayan farmers serve as valuable knowledge inputs to chart out new pathways for transforming the farming economies of households, villages, valleys and farming landscapes elsewhere.
- Essential for mainstreaming new age Himalayan farmers movement, is strong back-up support of R&D institutions for technological services, in addition to necessary social engineering innovations.
- **It emerges that we need a policy dialogue on this topic.** Since technology does not work in vacuum, to support this idea would mean developing right policies and enabling institutional capacities in place. Success requires that everything is in place to support it. IMI’s strength lies in its active engagement on the issues of critical importance to the Himalayan Mountains. From IMI’s perspective, through such exercises, we keep adding to the pool of mountain knowledge which would help chalk out a way forward.

Note: 1. This policy brief has been extracted from the workshop report of the New Age Himalayan Farmers that was one the activity of the IMI-FAO project on Mountain Agriculture.

Author: Dr Tej Partap, Email: tpartap52@gmail.com