

Cultivating diversity: Scientists help nurture the roots¹

(Insights from Uttar Chakwakheta-UC)

Dhananjay Ray², Rupak Sarkar³, Ranjit Chatterjee⁴ and Subrata Majumdar⁵

The background

One of the important goals, of the project DSI4MTF, is improving dry-season agriculture involving small, marginal, tenant and women farmers. Over the last three years of the project several experiments/trials and interventions have been tried. They include irrigation and crop technologies. Equal emphasis has been laid on the capacity building and orientation of the farmers to try innovations and subsequently manage them. An ethical community engagement approach has been adopted to work with the farmers-encourage their participation and respect their wisdom. There has been focus on collaborative learning pedagogy.

UC (one of the project villages in Alipurduar district, West Bengal, India) is a predominantly tribal village for whom agriculture has not been quite intensive. They have been cultivating paddy and some other crop like jute and vegetable. Also the village has been facing invasion by the wild animals –most serious among them being elephant. Any crop trampled and destroyed by the elephant is a cursed crop for which the farmers would hesitate going the next time.

The new technologies opened windows of opportunities

With the introduction of shallow-tube wells, solar technology and protected farming new windows of opportunities started opening although with a lot of hesitation. The social scientists from CDHI and agriculture scientists from UBKV tried to proactively deal with their hesitation and some time indifference. Emphasis was given to help them demystify new technologies, understand them and try them on a small scale. The idea has been to enthuse them to try new technologies, examine and analyse their performances and see for themselves how things could work better. Tribal society is characterized by a pervasive ‘**culture of silence**’ and submission- this is usually felt. But they were hard working and honest. Our first challenge was to break away from this prevailing culture of silence and submission. Through social mobilization and working with them, appreciating their wisdom and initiatives,

¹ Thanks are acknowledged to Erik Schimdt, Team Leader, DSI4MTF and Deputy Director, USQ, (Australia) and Prof. Rajeshwar Mishra, Social Psychologist and visiting Director of CDHI, Jalpaiguri, (India) for their support in evolving strategies and design for community engagement in crop diversity and technology innovations . The two have been constantly involved in discussion and reflections . Thanks are also acknowledged to Mrs. Mitali Ghosh , Dr. Biplab Mitra, Mr. Benu Kanta Dey and Mr. Prasun Deb Kanungoe for their valuable contribution.

² Chief Executive, CDHI and coordinator DSI4MTF Project

³ Associate Professor, UBKV and PI, DSI4MTF Project

⁴ Associate Professor, UBKV and Member DSI4MTF Project

⁵ Executive Director (Programs, CDHI) and technology expert DSI4MTF

organizing community based organizations like farmers club and self-help groups positive impact was shown. Inter-village exposure trips proved useful. The project also helped developing and building backward-forward linkages with the state and non-state agencies. Provision of caste certificate, through our facilitation, created confidence as the certificate ensured the rights and entitlement of the tribal community and helped in accessing irrigation and other facilities from government. These worked positively in breaking the culture of silence and submission. Buoyed by these modest successes the community started showing positive initiatives.



Pic 1: Project partners' discussion at UC site-4 and visit of mustard field at UC site-2 (Inside)

From mobilization to planning and action

The two years of mobilization created an enabling space for the UC farmers to look beyond UC. To begin with, peer-group sharing with Dhoulaguri, another village of the DSI4MTF project location in Coochbehar district (West Bengal), helped exchanging views and perspectives. This was followed by a visit to progressive farmers outside Cooch Behar. Then CDHI initiated the practice of bi-monthly reflection meetings between the two villages. The meetings served as a forum to exchange views and opportunity for critical reflection. The UC farmers realized the enormity of the task if agriculture was to be a viable enterprise.



Pic-2: Presentation by the UC farmers during planning meeting in August 2017 at CDHI

The scientists at the roots

The last two years of experiences were revealing. From a social perspective farmers' collectives started firming and forward linkage with the district development witnessed aspirations soaring. Meanwhile a stakeholders meeting convened at the UBKV helped in bringing the farmers face to face with the stakeholders and the UBKV scientists were able to assess the interventions and analyze the gaps. Based on this assessment and analysis a detailed action plan evolved.

From an agronomic point view an early variety of cropping was considered to be more profitable which was supported by the results from Dhoulaguri. The protected structure was considered an opportunity to try niche crops of early variety. The risks were high and process required rigour.

The tribal farmers were still not quite comfortable and through poor luck been heavy rains and the resulting moisture led to dwarfing the seedlings. The farmers were morose – 'their first attempt proved devastating'. The agriculture scientists and social scientists from CDHI-UBKV sat together and **decided to offer a helping hand** at this hour of crises.



Pic-3: Demonstration of INM practices, Pic-4: Selection of matured cauliflower plants for transplanting.

Presence of the scientists created –‘we can do spirit’

Saturday (19 August 2017) can be termed as red letter day in the life of the UC farmers. The scientists led by Prof. Ranjit Chatterjee and CDHI team could be seen around the protected structure with cauliflower seedlings in various levels of maturity. It was frank discussion, reflections and trials. The farmers were overwhelmed to see the UBKV scientists amidst themselves, holding their hand suggesting measures. A detailed plan was made on practices to be followed.



Pic-5: Handholding training by scientist for transplanting, Pic-6: Future course of follow-up plan discussed with farmers.

Dr. Ranjit offered all the technical support and more than anything else promised to be there on regular monitoring. The handholding and nurturance that he provided and promised proved a great stimulant one of the farmers quipped –‘this year we are going to harvest early variety. If nothing works the life is going to be much better’. For the CDHI team it was the

galvanization of a different kind-in no time the farmers could be seen running from all corners picking up various activities including repairing of the curtain of the poly house and the farmers cleaning the side embankments. The division of responsibility was so natural and seamless. The nurturance at the roots would ensure diversity and mobilization equity and inclusion. The nurturance helped farmers- both male and female come forward and participate.



Pic-7: Rita Bhwagat, leader of collective farming group, UC site-3 is repairing the door of poly house.

In conclusion

The poor tribal farmers have been quite hesitant because of several factors. Formal support from the state and non-state agencies might provide some subsidy and dole, which could be sporadic in nature and would not give rise to confidence in their self-efficacy. The present interventions have been a good combination of engagement and empathy followed by technology. The engagement has helped them realize their potential and put them (the potentials) to creative and innovative use.

They have also been missing empathetic support from the state and non-state agencies on technology, especially agriculture and land based livelihoods. The interventions from the UBKV came as the most needed support which included both advisory and hand holding. The last two years have been the period of reflection-assessment and analysis. The protected farming, solar pumps and shallow pumps provide opportunity for agriculture based livelihoods which have proved a great incentive. Constant interaction with CDHI social scientists and UBKV agriculture scientists created confidence. Their promise for support helped them move with renewed aspiration as they stand together. When the tribal farmers find the agriculture scientists by their side, in their farms, feeling and nurturing the roots there is a renewed hope for diversity and sustenance. For the scientists it is a great opportunity as they can learn from their wisdom and read meaning in their questions and innovations.

DSI4MTF is not just a research for development intervention emphasising how technology works and how development can fructify. DSI4MTF is an attempt at scripting a story of inclusion and equity and a new form of galvanization and collectivization by the marginal and small farmers. It is a seamless coordination and collaboration among and between the national and international scientists joined by an empathetic community following an ethical community engagement facilitated by local agencies –UBKV, CDHI, Farmers clubs etc. The intervention although in its infancy spells strong policy message. The outcome, being read, assessed and analyzed by yet another ACIAR project – “Promoting socially inclusive and sustainable agricultural intensification in West Bengal and Bangladesh” SIAGI - may help extend to agriculture intensification, inclusive value chains, inclusion and justice. The time is now to develop and pursue improved collaboration and synergy and explore the possibility of up-scaling and out-scaling.