Australian Government

Australian Centre for International Agricultural Research

Final report

Small research and development activity

project	**Workshop and review of Innovation Platforms to enable scaling out of Conservation Agriculture-Based Sustainable Intensification in the Eastern Gangetic Plains**
project number	CSE/2017/015
date published	June 2018
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approved by	
final report number	**N/A**
ISBN	**N/A**
published by	ACIAR GPO Box 1571 Canberra ACT 2601 Australia

Contents

1. Acknowledgments

We sincerely thank all the participants involved in the workshop, the support from CIMMYT at RDRS and the broader SRFSI project team: TP Tiwari, Mahesh Gathala, Sofina Marhajan, Lennart Woltering (CIMMYT), Fay Rola-Rubzen (Curtin University), Dinesh Thapa, Surya Prasad Adhikari (NARC), Dipendra Pokharel (DOA), Mazhar Anwar, Shakhawat Hossain (BARI), Rashadul Islam, Mamunur Rashid, Anup Kumar (RDRS), Ram Datt, Ranvir Kumar (BAU), Tapamay Dhar, KK Das (UBKV), Jay Cummins (IA4D), Tamara Jackson (CSU/ACIAR), George Mburathi (ACIAR consultant), Felister Makini (KALRO), and Aslam (RDRS).We also thank John Dixon and ACIAR for financial assistance in running the workshop.

2. Executive summary

Innovation Platforms (IPs) have been implemented and supported since 2015 to enable scaling out of Conservation Agriculture-Based Sustainable Intensification (CASI) in the EGP (Eastern Gangetic Plains). IPs were designed to be multi-stakeholder forums linking private, civil and public sector stakeholders (including micro-entrepreneurs) to collectively identify and work towards overcoming barriers to improving agricultural productivity and profitability. They were established to (1) diagnose problems, (2) identify opportunities, (3) find ways to achieve goals, and (4) create mutual benefits with stakeholders for the benefit of farmers and farming communities through the EGP. A four-day Innovation Platforms Review Workshop was conducted at RDRS in Rangpur, Bangladesh with additional funds provided by ACIAR to support the "Sustainable and resilient farming systems intensification" (SRFSI) project in the EGP (CSE/2011/077). It was considered timely to review progress made and explore collective learnings of success or failure of IPs at the Node and District level over the past two years, and consider key policy and institutional issues.

There were 20 participants in attendance representing key local SRFSI partners that have been involved in establishing, running and supporting the Node and District IPs across the EGP. This included representatives from each of the implementing partners from Nepal, Bangladesh and Indian states of Bihar and West Bengal, researchers from CSIRO (Dr Peter Brown, Dr Toni Darbas), Curtin University (Dr Fay Rola-Rubzen), and CIMMYT (Dr Lennart Woltering, Sofina Marhajan), plus a support person from ACIAR (Dr Tamara Jackson with experience from Laos), an external reviewer (Dr Jay Cummins), and selected international experts who have established and run IPs in Africa (Dr George Mburathi, ACIAR consultant, Dr Felister Makini, KALRO). The workshop was facilitated by Peter Brown (CSIRO).

The workshop was highly flexible and shifted focus depending on the requirements of the participants. It covered expectations, focussed presentations, open and focussed discussions relating to benefits of IPs, areas for improvement of IPs, how to measure success (M&E and indicators), how to formalise IPs in national systems (policy), how to capture success and failures and/or stories for policy planning, how to involve input and output models (value chains) and business development framework/models, how to build sustainability of IPs, and development of a Guidebook, policy brief and a journal paper. The agenda and list of participants is provided in Appendix 1.

There are some 43(+) IPs now implemented (Table 1), mainly at Node level, but some District IPs are also emerging (plus 2 additional IPs looking at other systems such as fish and vegetable production).

Table 1. Number of Innovation Platforms (IPs) established in each Country, State and District

Country/State	District	No. Node IPs	No. District IPs	Additional nodes
Nepal	Sunsari	5	1	2
	Dhanusha	5	1	
Bangladesh	Rangpur	5	1 Upzilla IP; District IP planned	
	Rajshahi	5	District IP planned	
West Bengal (India)	Malda	5	1	
	Coochbehar	5	1	
Bihar (India)	Purnea	5	1	
	Madhubani	?	?	
	TOTAL	**35**	**5 + 1 Upzilla IP**	**2**
				GRAND TOTAL = 43

Some of the problems discussed and collaboratively addressed (at least partially) through Innovation Platforms within the SRFSI jurisdiction include limited availability of quality fertilisers, herbicides and seeds at the right time, limited availability of machinery and lack of skills for repair and maintenance and limited technical knowledge and skills on crop

management practices. IPs have also facilitated integration of food production with energy and water management considerations at a local level, where interest is driven by the practical solutions offered by SRFSI to overcome labour, energy and water shortages. In addition, IPs have looked to increase profit, seek win-win conditions for both providers and receivers, make extension more efficient, solving other problems to benefit the wider community, and allowing the evolution of IPs into agri-businesses (a range of models are emerging from different jurisdictions which are context specific).

It was highly valuable to compare the IP situation in the EGP with the African context (through involvement of George Mburathi and Felister Makini) and with Laos (through Tamara Jackson). Through their SIMLESA project, the African's are about 5 years more advanced on development and implementation of IPs than South Asia. We explored similarities and differences between South Asia (EGP) and Africa with learnings flowing both ways.

Key recommendations for IPs include (some policy opportunities and sustainability issues are outlined in the draft Policy Brief, Appendix 2):

- Capacity building: support needs to be provided for facilitating, technical aspects, markets, strategy mapping, soft skills, financial, business, supporting champion farmers, master trainers and for mentoring;
- Links with value chains: there needs to be strong links with input and output markets;
- Development on business models: to enable entrepreneurs, service providers and IPs themselves to run viable businesses; and
- Build sustainability: incorporation into national extension policy and university curricula, and creating enabling environment to ensure sustainability through master trainers, networking, and capacity building of lead (champion) farmers.
- Monitoring and evaluation (M&E): importance to monitor change over time, and to capture success stories and learnings, and to share importance of gender inclusiveness and involvement of minority groups;

The key attributes of effective IPs are:

- Built on existing social infrastructure: develop and build capacity of existing farmer groups rather than creating new groups (which takes time): don't reinvent the wheel;
- Support existing extension mandates: assist government extension agencies (e.g. DOA/DAE/DADO) to fulfil group extension mandates;
- Identify and access subsidies: to establish machine hub hire services;
- Empower women and youth: include, employ and empower women and youth (e.g. CBFs, mechanics, drivers, poultry, fisheries, mushroom production, transplanter rice seedlings);
- Build business models and increase bargaining power: input shops, maize contract, maize marketing, seed production, CASI machine services; aggregate input demand and produce for improved prices; and
- Employ ICTs: use electronic payment systems, market information, pest, weed and disease diagnosis.

Outputs from the workshop were:

- Guidebook to provide a resource for people wishing to set up IPs in South Asia (or Eastern Gangetic Plains more specifically). It will be a web-based resource in local languages, featuring SRFSI e.g. business models, with short videos (e.g. role plays) & links to further resources. More work is required to complete this.
- Policy brief: a 3-page communication to policy to seek support for Innovation Platforms (draft provided in Appendix 2); and
- Journal paper: An outline of a paper on: "Utility of Innovation Platforms to catalyse adoption of conservation agriculture technologies in South Asia" was discussed. Everyone was invited to contribute.

Feedback was obtained through a feedback form at the conclusion of the workshop, and all responses to questions were “Strongly Agree” (8/10) or “Agree” (2/10), with 100% of participants indicating “Strongly Agree” to the statement: “It was a great meeting!”. Some comments included:

> *“Invaluable to have IP experts from Africa & South East Asia - led to very rich discussion & deepened awareness of similarities/differences in institutional contexts”*
>
> *“Excellent meeting to share & learn experiences in IP”*
>
> *“IP workshop covers all aspects of IP and sustaining IP including policy intervention. Thus it was grand success”*
>
> *“This workshop is very good platform for me to know the success stories of Africa. This will be applicable in my areas for sustainability of IP”*

3. List of acronyms

2WT	Two-wheeled tractor
ACIAR	Australian Centre for International Agricultural Research
APA	Annual performance appraisal
ASEAN	Association of Southeast Asian Nations
ATMA	Agricultural Technology Management Agency
BARI	Bangladesh Agriculture Research Institute
BGREI	Bringing the Green Revolution to Eastern India
BMP	Best management practices
CA	Conservation agriculture
CASI	Conservation agriculture and sustainable intensification technologies
CBF	Community business facilitator
CIMMYT	International Maize and Wheat Improvement Center
CLSP	Crop-livestock systems platform project in Laos
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DADO	Department of Agriculture Development Office, Nepal
DAE	Department of Agricultural Extension, Bangladesh
DFAT	Department of Foreign Affairs and Trade, Australia
DOA	Department of Agriculture
DSR	Dry sown rice
EGP	Eastern Gangetic Plains
FC	Farmer club
FFS	Farmer field school
FG	Farmer group
FGD	Focus group discussion
GESI	Global Evidence Synthesis Initiative
HH	Households
HYV	High yielding varieties
ICT	Information and communications technologies
IFFCO	Indian Farmers Fertiliser Cooperative Limited
IFPRI	International Food Policy Research Institute
ILRI	International Livestock Research Institute
IP	Innovation Platform – a multi-stakeholder forum designed to alleviate production problems
IPM	Integrated pest management
KALRO	Kenya Agricultural & Livestock Research Organization
KVK	Krishi Vigyan Kendra, Indian agricultural extension centre
LLL	Laser land leveller
LSP	Local service provider
M&E	Monitoring and evaluation
MCP	Multi crop planter
NABARD	National Bank for Agriculture and Rural Development, India
NARC	Nepal Agricultural Research Council
NARS	National Agriculture Research Systems
NGO	Non-Government Organisations
PMFBY	Pradhan Mantri Fasal Bima Yojan Indian crop insurance scheme
PROG	Problems, resources, opportunities and gaps
R&D	Research and Development
RDRS	NGO, Bangladesh
SAARC	South Asian Association for Regional Cooperation
SDIP	Sustainable Development Investment Program, Australian government
SHG	Self-help groups
SIMLESA	Sustainable Intensification of Maize-Legume cropping systems for food security in Eastern and Southern Africa
SRFSI	Sustainable and Resilient Farming Systems Intensification
ST	Strip till
UBKV	Uttar Banga Krishi Viswavidyalaya, West Bengal University of Agriculture, India
WTO	World Trade Organisation
ZT	Zero till
ZTSD	Zero tillage seed drill

4. Introduction

This SRA was designed to review and evaluate Innovation Platforms (IPs) that have been running as part of the Sustainable and Resilient Farming Systems Intensification (SRFSI) project in the Eastern Gangetic Plains (EGP), and to synthesise critical operational factors for improved effectiveness of future initiatives. IPs were designed to be multi-stakeholder forums linking private, civil and public sector stakeholders (including markets and other private micro-entrepreneurs) to collectively identify and work towards overcoming barriers to improving agricultural productivity. There are about 40 IPs in various states of effectiveness that have been running over the last two years, and it is timely to review progress made since commencing these in 2015, to identify and learn from successes and failures, and explore opportunities for scaling out SRFSI tested technologies. This SRA was designed to:

1. Value-add to ongoing development and implementation of IPs through the existing SRFSI project through a focussed and facilitated workshop,
2. Identify and learn from successes and failures and to consider strategies to improve overall functioning and benefits of IPs, and
3. Synthesise experiences to contribute to a better understanding of IP in the region and to make future IPs more effective either in subsequent phases of SRFSI/SDIP or new initiatives.

Some of the problems discussed and collaboratively addressed (at least partially) through Innovation Platforms within the SRFSI jurisdiction include limited availability of quality fertilisers, herbicides and seeds at the right time, limited availability of machinery and lack of skills for repair and maintenance and limited technical knowledge and skills on crop management practices. IPs have also facilitated integration of food production with energy and water management considerations at a local level, where interest is driven by the practical solutions offered by SRFSI to overcome labour, energy and water shortages.

The four day workshop was held at the RDRS campus, Rangpur, Bangladesh, immediately prior to the SRFSI Annual Review and Planning Meeting, September 2017. The workshop was designed to include the following activities:

1. Present experiences from local partners and selected international experts from Africa and Southeast Asia (what worked, what didn't, marketing versus mechanisation, Node & District levels, utility of IPs for women farmers and other disadvantaged or marginalised groups, institutional and policy implications),
2. Facilitate sessions to discuss what needs to be done to improve IPs, markets opportunities, overcome policy constraints, focus on benefits for women, etc
3. Undertake a field trip to see an IP to observe and discuss opportunities and limitations of IPs,
4. Review successes,
5. Identify key constraints and critical operations for outscaling and upscaling,
6. Plan a strategy to improve running of IPs for SRFSI and for other future initiatives, and
7. Identify the format for an IP Guidebook that is relevant for local stakeholders.

The main outputs of this project were to:

- Synthesise knowledge about IP operation in the region, and how that incorporates and compares to international experiences.
- Establish of a writing team and an agreed process for producing a IP Guidebook;
- Establish of a writing team and an agreed plan for development of a journal paper reviewing learnings from implementation of IPs for SRFSI in the EGP; and
- Establish a writing team to develop a policy brief on IPs.

The desired outcomes of the SRA were:

- Collective learning of success or failure of IPs at the Node and District level, and consider key policy and institutional issues.
- Process to capture these learnings and write-up for different audiences, including academic report, working Guidebook, journal paper and policy brief.

A range of participants were invited to represent key local SRFSI partners that have been involved in setting up, establishing and running the Node and District IPs across the EGP, local or District policy representatives, international researchers from the SRFSI project, support people from ACIAR, an external reviewer, and selected international experts who have established and run IPs in Africa and Southeast Asia. The workshop was designed to build on the existing SRFSI project and will consider issues related to improving IPs, but also how to improve scaling out and scaling up benefits of the SRFSI project and broader SDIP outcomes and impacts.

The workshop was facilitated to meet the partner demands such as the development of a Guidebook on IP establishment and co-learning. The workshop itself, reports and policy brief will be tightly linked into current and future planned projects (e.g. Scaling Variation Version 3) to be focussed on practical approaches to improve broader SRFSI project outcomes and impacts. The immediate beneficiaries will be project personnel, but as IPs are improved, the longer term aim is that significant community benefits will be accrued. The workshop also addressed a range of additional issues associated with the need to develop a sustainable resourcing base for IPs (e.g. can IPs be complementary with other extension outreach activities from both the private and government sector in an effort to strengthen the value and impacts associated with IPs).

5. IP Workshop Presentations and Discussions

5.1 Highlights from presentations and discussions

After a brief welcome and introduction to the workshop, the group ran through their expectations for the workshop, which were captured on large sheets of paper. These were reviewed at the end of the workshop (see Section 10).

A series of presentations were given to provide some context about Innovation Platforms (IPs). Detailed notes from each presentation are provided in Appendix 3. The workshop was structured so that participants were exposed to learnings from experiences in Africa (by George Mburathi and Felister Makini) and from experiences in Laos (by Tamara Jackson Jackson). This lead into a panel session where the workshop participants asked George, Felister and Tamara about similarities and differences of implementing IPs. Some of the key learnings included:

- Importance of having a mandate for extension to fully utilise IPs (so it is not project based) (extension system needs to be demand driven). Need high-level support.
- Use IPs to catalyse technology uptake.
- In the African context, high-level government officials were invited to see the situation on the ground to enable “seeing is believing” supported by policy briefs to incorporate into national agricultural strategies.
- The need to influence policy is very important. Policy is formulated at the top, but policy needs to be made at the bottom for IPs to work. IPs can facilitate buy-in and ease the process.
- IPs are meant to benefit the whole system.
- IPs do not necessarily require funding; it depends on their maturity. If it is facilitated by the government, participants expect to be paid. Mature IPs were winning grants and established micro-finance mechanisms that made IPs self-sustaining.
- Impact studies are important to demonstrate benefits on livelihoods, farming systems and HH incomes. Champions will emerge.
- IP need some initial quick benefits such as HYV, whereas CA will take time.

George presenting the IP work from Africa

Workshop participants during presentation

A series of presentations were delivered for each of the jurisdictions (West Bengal, Bihar, NW Bangladesh and Terai of Nepal) about how their IPs were running, what worked, what didn’t, and a range of implications (details in Appendix 3). This is summarised in Section 5.2 as the discussion topics emerged.

George, Felister and Tamara as the panel

Panel discussion session

5.2 Key discussion topics

The discussion topics identified were refined into four parts, being:

- **Topic 1**: Define success & conditions for success, how to measure success – M&E and indicators
- **Topic 2**: How to involve input & output models (value chains) and business development framework/models
- **Topic 3**: How to formalise IPs in national systems (policy) and how to capture success & failures and/or stories for policy (& papers)
- **Topic 4**: How to build sustainability of IPs?

Topic 1: Define success & conditions for success, how to measure success – M&E and indicators

Definition of success:

The IP solves a problem, benefits members and participants, for e.g. through service provision, creates profits via win-win actions, is self-sustaining, the process can be applied to further problems, it helps the broader community (i.e. is not an exclusive group), receives formal recognition and is part of an evolution to agri-business models and their replication. Some examples include:

- Improved access to services
- Increase profit
- Win-win condition for both provider and receiver
- Capacity to run by itself
- Capacity to solve other problems
- Benefits to the larger community
- Formal recognition
- Evolution into an agri-business model
- Replicated in areas

How to measure the success of IPs? Indicators should align with national program and project objectives:

- Are objectives being achieved (yes/no)?
- What is the effect on other areas of household (food sufficiency/education/ health & nutrition/ other income generation/ capacity)?
- What is the capacity of the group (human resource, skill, financial)?
- Is there recognition (social/formal/legal)?
- What potential is there to start agri-business?

- What is the diversity within the group (stake-holders from different sectors)?
- The number persons that receive benefit from it?
- What is the area coverage?
- How much women participation in the activities?
- What is the cost and economics of the technologies?

Topic 2: What are the optimum business development frameworks and models that can increase the efficiency of the input/output value chains?

A model called PROG (= problems, resources, opportunities and gaps) was proposed. It is a basic business principle that someone else's problem could be an opportunity for me. The model has 6 steps and every step involves innovation via interaction. It involves dividing up the work along accountabilities and responsibilities and deals with who gets what in terms of tangible benefits. The model involves moving steadily from intensive capacity-building to lighter touch mentoring. Finally, it interprets scaling as reaching economies of scale.

The business model framework (Figure 1) was outlined by the group and discussed:

- Is there a tension between IP sustainability and IP profitability? No, sustainability = profitability because it is profit that motivates people.
- Is it suitable for all IPs/is it sufficiently generic? Yes, it is flexible as it offers only the fundamental principles to follow.
- Is it suitable for both the input and output sides of the value chain? Yes, it works for building demand for input and aggregating produce for sale. Which one you focus upon depends upon the situation analysis.

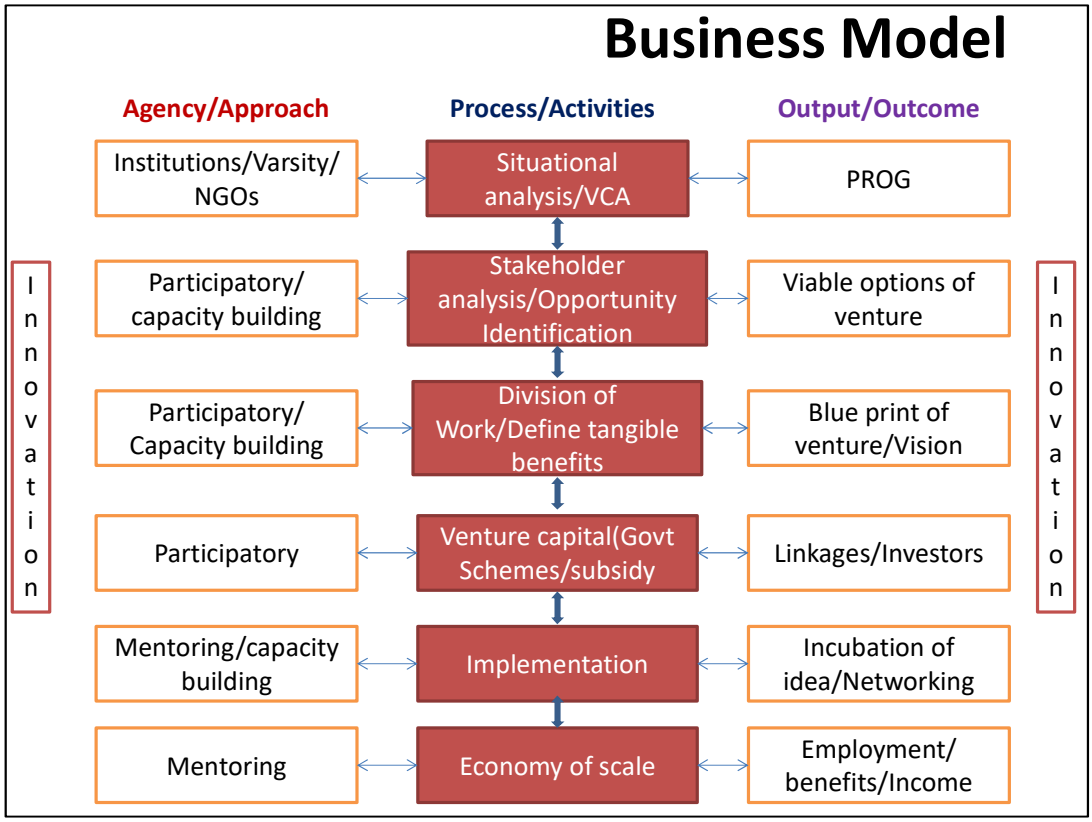

Figure 1. A business model framework was proposed to assist with implementation and sustainability of IPs.

Topic 3: How to formalise IPs in national systems (policy) and how to capture success & failures and/or stories for policy (& papers)

How to scale IPs:

Either through more IPs or further problem solving by existing IPs. It is easier to build new IPs by using relationships with existing IPs:

- Demonstrations of success
- Capacity building
- Built on existing relationship
- Built on existing structures
- Include in national/regional policy level

Why IPs should be formalised:

We should be communicating the method and explaining why it is needed in this area. Formalising IPs is a means of influencing their policy so as to create an enabling environment for CASI. Ideas about policy barriers and sustainability are provided in Appendix 3.

Funding is necessary for initiating IPs and developing them to the level of profitable business models after which IPs only require backstopping. Current IP funding is very low because it is so dependent on donors. Policy makers make funding decisions and we need to induce and enable them to release funds. Ultimately, funding comes from the national level.

Failures of current extension system means that we are not understanding or delivering what farmers need. Multiple farmer typologies are evident in the field and it requires a flexible approach to meet the needs of different types. The current system is too top-down, forced and very bureaucratic. There are very poor extension officer to farmer ratios, reaching 1:22,000 in Nepal, but 1:2,000 or 1:3,000 in other areas. Geographic isolation in the EGP region means we need to develop IPs in-situ as an alternative to the prevailing agricultural service centre model. Progress is too slow and impact is not realised because current methods of dissemination are limited. A fast track approach is needed. We are beginning to see evidence of success and want to propose an alternative method of extension.

IPs need to be formalised in order to obtain permission for extension officers to participate in them as they require higher level authorisation/legal permission to set up IPs and attend IP meetings. This is a bureaucratic difficulty in existing hierarchical systems. This matters for promotion, for example, BARI is committed to develop 10 technologies in Rangpur and Rajshahi, if officers fail to achieve it, their points are reduced. Scientists also need a legal letter giving official permission to conduct activities. Personnel need support, they have to meet targets, and are not permitted to spend time on IPs. An inducement is necessary: IP support needs to be incorporated into annual performance appraisals (APAs). An IP oriented mandate is required. APAs involve planning and signing off on a year's work. Staff have to perform against it or their career suffer.

IPs also need to be formalised by government: in India FCs/IPs need to be registered under the Societies Act. In Nepal, the DADO extension officer's first job is to form and register FGs of between 20 and 25 members – which is prescriptive and fails to acknowledge dynamism of FGs. FG membership needs to be more flexible (albeit containing at least 10 farmers). An IP is not only composed of farmers, but also of stakeholders (e.g. credit institutions, service providers) because it needs to be based on a value chain and to seek to increase the value chain's efficiency. We also need to include female participants. Currently extension systems hinder the participation of women in all fields which limits their opportunities.

How to formalise and institutionalise IPs

Extension programs are established by Ministries of Agriculture which makes them a key target to influence:

1. Approaching and appraising departmental, institutional and funding heads, including having TP Tiwari (CIMMYT Project Leader for SRFSI) approach Director Generals;
2. Get them to approach next level in hierarchy;
3. Simultaneously convincing political personnel of success of method;
4. Organising exposure visits: seeing is believing (credibility); authorise them;
5. Policy briefs, success stories, journalists/media work: circulate documents/ videos/ documentaries with tangible outcomes/quantification (imply political capital can be made);
6. Next planning meeting: invite high level personnel and media;
7. Inclusion of IPs in national extension policy and academic curricula: create graduates skilled in facilitation and empowerment via academic council which are chaired by VCs and via DG of ICAR in India;
8. Including in national agricultural policy and research strategy plans or advice on operationalise plans, write regulations under legislation: good advice on how to implement by including IPs; and
9. Organise a high level international meeting to present evidence: who has the mandate - SAARC South Asia Association for Regional Cooperation or SAC SAARC Agriculture Centre is the appropriate wing and is headquartered in Dhaka (TP and PK Joshi of IFPRI could facilitate).

How to capture successes and failures and/or stories for policy and papers?

- Photographs and case studies, success stories, videos/documentaries of farmer testimonies ("my life was here and now it is here": better food security, housing, livestock, buy land education and health, family uplift, income levels lifted);
- Quality learning/discussion results in beneficial impacts: empowerment of women, increased confidence and capacity to continuously innovate;
- Increased social capital and cohesion;
- Increased productivity, risk reduction, motivated and entrepreneurial attitude, business outlook, increased input/output market access, receptivity to new technology, collective bargaining power;
- Gender equity: equal participation in decision-making and income generation/ management. Breaking barrier of male dominance and enabling women to participate in all activities, encouraging women to use light/small scale agricultural machinery. An evolution towards equality;
- Improving efficiency of value chain, facilitation of value adding (processed products for e.g. packaging, branding and selling lentils in West Bengal; rice seedling production), creation of new value chains;
- Creation of enabling environment for surrounding villages: local spill-over effects and encouragement of farmer to farmer extension (e.g. FCs building capacity of further FCs); and
- Encouragement of engagement of youth in agriculture, harnessing ICT skills-documentary.

However:

- There are no universities yet involved in Nepal or Bangladesh: but could invite Professors;
- Going for CA but IP is a general concept: can't be just be confined to CASI; can apply to any technology;
- Need mandate from policy level; need a legal letter for official permission; and
- Propose an alternative approach to extension.

How to measure success (M&E indicators) and transform it to other areas:

- Include policy influence and employment creation as an IP success factor;
- Use a mixture of qualitative and quantitative indicators of success;
- New IPs will also require a baseline to be established in order to measure change;
- Easier to use a scorecard approach;
- Reaching economies of scale is a good indicator;
- The indicators need to drill down to the next level, especially cost economics;
- Indicators need to go into the IP protocol; and
- ACIAR and CIMMYT will need to help with alignment of indicators to project and national objectives.

What is success?

- How to measure it?
- Scaling? District level?
- Ability to influence policy?
- Capacity of the group: number of jobs created?
- Could the additional suggestions for improvement also be captured?
- Do we need baseline information?
- Set up as a score-card?
- Include economies of scale?
- Adoption and practice change?
- Examples are needed.

Topic 4: How to build sustainability of IPs?

There are a series of issues that can help build the sustainability of IPs:

- IPs need to show success factors and show benefits (but also highlight challenges);
- There needs to be continuity;
- More capacity building is required for Master trainer and networking;
- CASI is an entry point, with a focus on machinery;
- Make strong links with research institutes for the right technology and link with private and public actors;
- Engage with stakeholders and consider their motivations and incentives (so they get benefit);
- Develop entrepreneurs through local service providers (LSP) and business promoters;
- It is business (not just improved yields) – everyone should receive benefits and involve strong partnerships;
- Formal social responsibility with broader benefit back to the whole community;
- Priorities technologies (and systems) to be applied to different crops: these need to be successful;
- Choose the right stakeholder;
- Issue about whether should address all crops? E.g. what about Jute, potato and vegetables?
- Women wish to look at value-adding crops such as kitchen gardens;
- Option to focus on cereal-based systems (many other things fall under that). No need to be rigid: it will help to bring in what you want. Help with overall food security agenda
- Facilitation is important;
- Training, especially for service providers;
- Overall needs to be profitable;
- Option for machinery bank: fund for supporting maintenance of machines and their repairs; and
- Include financial services.

5.3 Field trip highlights:

On the third day of the workshop, we visited one of the SRFSI project sites with a tribal community in Ranpur, Bangladesh (Node 3) on Teesta Floodplains. There were around 30 men and 5 women farmers involved in a general discussion. The highlights from the discussions are outlined below.

Group photo outside the meeting room with all participants (courtesy of Ram Datt)

Visit to the information centre to look at resources

The IP has 19 members representing a good range of stakeholders, including local government, a female government social worker, credit providers, input dealers and rice miller. It has been operating for 2 years so far and meets every month to discuss farming problems. They have a reaper, ZTD and MCP. It has encouraged the farming community and has been helpful for connecting them to the scientific community and government, e.g. linkage to DAE is increasing daily. The CASI technologies are considered to be very effective because they have lowered the cost of production.

The IP provides improved rice, maize and mustard seed to the wider community and arranges training for the seed receiving farmers about crop management which is very helpful for the different crops. To address post-harvest seed scarcity, the IP organised farmers to preserve seed in cold storage. The hope is to permanently solve the problem. RDRS provides foundation seed and a community seed production project is implemented through the IP; a lateral transfer of quality seed. Growing boro (dry season rice) is discouraged in this region; there is no subsidy for the crop because it requires too irrigation water. A new rice variety is now used derived from IRRI and is promoted via a DAE demonstration project. DAE provided seed free for demonstration purposes, but not enough for all.

CASI is unique for maize which is a labour intensive crop and the multi-crop planter reduced labour costs and increased profit. One acre of land costs Taka 7,000 under conventional tillage but Taka 1,000 using the multi-crop planter. Under conventional tillage, 4 irrigations costs 4 litres of diesel/1 irrigation/1 acre whereas under CA it is 2 litres diesel/1 irrigation/1 acre. Yields are equivalent, even a little less. RDRS and SRFSI have started mechanisation but need more machines to cover the entire area: they expect more machines.

They value the IP because it has increased their bargaining power: it has been a platform to form a farmers' association which compels the line departments to send staff to support and monitor it. Also, they now have input and output price information and can complain about being over-charged to the government actors who intervene to ensure fair prices. Before they were using untimely and inappropriate seed. Now companies and departments provide seed at the right time and with good quality.

They started from zero with no appropriate inputs and now in 2017 they reach 500 farmers and cover 70 to 80 acres. The BARC DG visited and was impressed so he will raise at the next level planning meeting. The government is expanding its support to IPs.

Lennart inspecting some of the conservation agriculture machinery

Some of the young women that were waiting outside

They have been able to invite government officers, addressing vegetables, agri-clinic centre, and inclusion of disadvantaged farmers. Three of the farming women present have husbands working in cities and find the IP very helpful for their farming activities. They are advancing towards establishment of non-farming livelihood activities such as fishery and poultry to engage the many unemployed youth via the IP. Participation of the tribal women, agro-advisory clinic a learning centre so farmer can come to see and learn. Out of adversity, shortage of labour, created impetus for mechanisation, empowerment of women, through significant change creating a better quality of life, opportunity to grab hold of opportunity/resource. Even though the IP is charging for services (only a small amount), tribal women are participating, providing a business forum, and enabling women to raise their voices (particularly to include vegetables).

It was impressive to see how they were organised, and as a group how they have been able to incorporate the government machinery so able to influence the government, how the extension officer has been able to utilise the group as an IP to reach the farmers more effectively. Within two years they have achieved a lot but are planning more. Women are integrated into the decision-making.

Government attention: see an opportunity for policy, and able to influence policy in the future for other things. There has been success because of obtaining the right inputs at the right time. They will be evolving beyond starting issues to address their other issues – fish poultry, vegetables – that is how an IP becomes self-sustaining, not only improved yields but reduction in the cost of production. All the stakeholders are involved – each are able to find their place in the value-chain.

The situation here in Bangladesh is unique, compared to India: input stakeholders have different thinking – oriented to the long term with the potential to build business. There needs to be more exposure and capacity building. They have an agricultural clinic, which contains all relevant information (posters, inputs, pests). The IP is more formal having office bearers, which helps with sustainability as the roles and responsibilities are clearly defined.

Stakeholder benefits

Previously, the DAE extension officer faced the problem of one to one contact with farmers which presents a coordination problem. He only had contact with 20 to 30 farmers whereas

as now it is 500. He has to spend one day each week in the district level office which limits his contact time with farmers.

The rice miller procures, transports and processes. There is not a big difference between local and central market foodgrain prices – Taka 55 versus Taka 52 (although this is a significant price difference for smallholders).

The young driver makes Taka 300/acres less under ZT due to the reduced number of passes. He earned Taka 900/acre previously but has made up the loss via much increased business. He is also continuing his schooling as his college is not strict about attendance. His friends are also interested in this occupation.

Input dealers for insecticide, pesticide and fertiliser stated that before the IP was established, farmers would not take their advice, such as application doses. Demand for product has increased since the IP and farmers come with specific requests derived from IP advice. Business is increasing daily. Representatives of agri-companies present commented that their main job is not to sell as much chemical as possible but to increase skill in pest management.

Challenges

Disbelief remains that CASI is beneficial. More machinery is needed to counter this. Although they have a savings fund from charging farmers a small amount for seeds, it is not yet sufficient to match the 50% subsidy + 20% credit: they cannot yet marshal the remaining 30%. Although mechanisation is the only way forward in such a densely populated area - they need more machinery.

5.4 Successful aspects of IPs

On the fourth day of the workshop, we reviewed what we had learnt and considered the relevant aspects that were successful aspects of IPs:

- Increased integration;
- Business service provision is made easier;
- Fast tracked agri-extension;
- Enhanced quality input consciousness;
- Enhanced gender equity (bargaining power) – especially tribal people who lag behind other farming communities;
- Social cohesiveness and inclusion increased;
- Political advantage (local vote catching – vote banks);
- Improved skills and knowledge of farmers;
- Attitudinal change from subsistence to commercial;
- Role as interface between researchers and farmers, extension system, input providers – improves all linkages between these stakeholders;
- Demand for inclusion in policy framework;
- Social caste and status differences are being gradually reduced – gradual flattening of hierarchies; and
- Profit sharing – e.g. between men and women; easier in an IP platform.

There were some aspects about involving politicians was considered controversial:

- Could only be a short term advantage;
- Could be a tactical move, but more important to convince the state/federal politicians in West Bengal situation;
- Some believe politicians shouldn’t be included; they take advantage and it has caused problems in other projects in West Bengal;
- Political situation differs from place to place, so can’t ignore it; it has to be recognised and examined as to whether we can take advantage of it;

- Depends on the IP maturity: good to have politician as IP member but not as the chairperson. An alternative view is that every partner has to be involved that can address the problem but each partner has to derive a benefit, then likely to be successful, but this depends on effective facilitation; and
- IPs have to be allowed to innovate on technology, how interact etc. A dogmatic approach does not work.

Shakhawat reporting back for the "successful aspects" group

Ram reporting back for the "areas that need improvement" group

5.5 Areas of IPs that require improvement

There are still areas of implementing and supporting IPs that require improvement.

Capacity building of different stakeholders:

- Facilitation: soft skills/communication, emotional intelligence, emotional control to avoid conflict;
- Technical: increasing competence;
- Market: how to sell produce, identify potential markets;
- Strategy/roadmaps: ten year strategy to establish what resources need – this requires guidance;
- Financial: maintain accounting system etc.;
- Business: a business temperament;
- Champion farmers: respect/recognition that you are the leader – instils pride;
- Need a critical mass of people to call upon to establish new/further IPs, departmental person who is good at it to call on to go to another jurisdiction; and
- Successful demonstration: field day, inviting dealers – encouragement to join hands.

Managing power imbalances:

- Everyone gets to speak, all perspectives, increasing inclusiveness is critical. However, someone always dominates: good exercise to split into smaller groups – dilutes the influence of the dominant personalities;
- Gender: encourage participation by women where they are not speaking as much; and
- Shared leadership: rotating leadership – every one or two years use a voting system to select new leaders. A motivation to speak up, do your best, and be selected as leader.

Diversity of stakeholders:

- Depends on value chain: who is important in the value chain;
- Engage private sector; and

- Good facilitator.

Sustainability:

- Attitude towards becoming business oriented: pathway to IP sustainability;
- Scaling up within the system to policy: second phase/next level, e.g. input dealer to agri-business company, export markets, continue to innovate and explore;
- Build capacity of lead farmers; and
- Feedback: improve information flows, M&E, performance indicators or scorecard approach, giving homework aligns well to indicators of success.

There was some questions raised and discussion about how to resolve them:

- How to improve capacity? E.g. business model training etc?
    - Workshops emphasising experiential learning and role playing – can't just lecture, lecture, lecture …;
    - Demonstration of technology (how to use) so they can visualise how it is actually done. Have to use different ways, you can't just use one way. Mentoring is a constant, face to face mentoring to bring out their thinking regarding what works so you can build on their thinking; and
    - Sit together with IP members to explore ideas, issues, problems, gaps, what to focus on. Based on that interaction get feedback – is a kind of technical capacity building; and
- Do you have the people and resources you need? A mechanism to draw on people?
    - Very difficult in West Bengal;
    - Avoid over-reliance on dealer: need IPM approach, remember organic produce niche; and
    - Working with the development sector: more than just agriculture.

It became clear that the real hard work begins when you go into an area requiring the establishment of a FG rather than building on existing FGs. Agovet services in Nepal are quite poor. Empowering groups to tackle this problem is the next step, mobilising them, convince them not to keep knowledge to themselves but to share it to enlarge the agricultural economy (but someone's problem is another's opportunity).

- Only dealing with cropping/farming: need to extend to other livelihood activities to build income streams;
- The IP process in an innovation too and leaving those skills in place so they can extend to new areas;
- Communicating success stories: is that the role of IPs? and
- All the ideas about how to communicate an IP guide are useful: videos etc.

6. Jurisdictional forward IP planning

Each jurisdiction spent some time making relevant and detailed plans for the future within the SRFSI project. A summary of the key points are captured below.

6.1 Nepal

What to do to support IPs for rest of the project?

- Benchmarking, Situation Analysis (Status of IPs, Node specific problems identification, stakeholders involvement, Opportunities, Gaps);
- Linkage of IPs with the local governments (Rural Municipality, Municipality);
- Explore and link other potential stakeholders available in the nodes with the IPs;
- Initiate agriculture information centre, and agro-advisory services;
- Technical backstopping, capacity building to the IPs; and
- Conduct/facilitate regular meetings of the IPs and work on the study findings, meeting discussions.

What could be done if more resources/time is available?

- Establishment of infrastructures such as community buildings local resource centres and provide support on the ground problems such as store house, collection centres, machineries, irrigation;
- Developing a business models in each IP;
- IP exchange/exposure visits, capacity building, Development of video documentaries, publications;
- Link IPs with ICT, other projects/programs and mainstreaming of IP at the national policy system; and
- Expansion of IPs beyond the nodes.

6.2 Bangladesh

What to do to support IPs for rest of the project?

- Capacity Building of stakeholders:
    - Technical
    - Financial
    - Market
    - Business
    - Existing Facilitator and new facilitator
    - Repair maintenance and improvement of existing machinery
    - How to hand over machinery from research institute/DAE to the IP
    - Collective marketing to build the bargaining power

What could be done if more resources/time is available?

- Organize training to build the capacity by bring the resource person (both government and private sector);
- Collective marketing;
- Access to credit to buy new machinery;
- Also include small harvester, service provider LSP; and
- Value addition in the product.

6.3 West Bengal

What to do to support IPs for rest of the project?

- Development of managerial skill towards sustainability in future;
- Capacity building of champion farmers for future facilitator;
- Replicate the IPs in new areas;
- Motivate district level stakeholders to bring more farmers club in the frame work;
- Bring IPs in national or regional framework;
- Institutionalise IPs within UBKV; and
- Publication operational guideline of IPs in local language.

What could be done if more resources/time is available?

- More exposure visits in between IPs (intercontinental ???);
- Implementing others ideas befitted with the region (agro-advisory clinic/mobile advisory services/soil testing BT soil kit/marketing etc); and
- Women empowerment (service provider/allied sector).

6.4 Bihar

What to do to support IPs for rest of the project?

- More number of activities in DEHAAT model like supply of machinery, quality inputs, credit linkages, capacity building (farmers, service providers), procurement of wheat and rice;
- Expansion of DEHAAT of models in other nodes (5 number);
- Registration next 1000 farmers in DEHAAT;
- Development of more extension materials and communication;
- Development short videos based on success; and
- Training programme, facilitation, cross exposure visits.

Aranyak (Agri-Producing Company):

- Provide quality inputs on government rate;
- Capacity development programme (post-harvest management of maize crop);
- Development of short videos;
- Awareness programme about balance use of fertilizer at soil health card;
- Use of champion farmers for scaling out of CASI technologies; and
- Impact analysis.

What could be done if more resources/time is available?

- Scaling out in other blocks and district;
- Scaling up from local to national level (More towards policy);
- Inclusion of more stakeholders and other value chains;
- Linkages with national schemes/programme;
- Linkages with other agencies like ATMA, KVK, Private Institutions etc.;
- We need resource for impact analysis and video development;
- Linkages with PMFBY;
- Use ICT tools for better communication and M&E; and
- Development leadership quality and use of champion stakeholder for development InP network.

7. IP Guidebook for South Asia

A range of issues were discussed about the development of a Guidebook to use as a resource to help support IPs in South Asia. There was also deep discussion about whether to develop our own Guidebook, or to utilise the range of resources that already exist, but collect them in such a way that they provide relevance for the South Asian and EGP situation as much as possible.

- Who is the target group for the guidebook? Who, at what level, is providing information to farmers and are there other operators, for e.g. local government, lead farmers, and champions;
- It is the line departments, KVKs and agricultural universities who currently undertake extension?
- Use simple, everyday language. Although the target audience is at higher levels, they need to be able to communicate the ideas to lower levels at which people may not be literate. Use a metaphor akin to the KALRO example of how to organise an African funeral: a South Asian wedding;
- Clear advice, for example, how to do a rapid rural appraisal, decide on IP objectives, gender inclusion, and how to bring a new farmer group together if one does not already exist?
- The KALRO Guidebook looks comprehensive: it covers stakeholder participation, uses distinct cases as examples, M&E etc.;
- It needs to begin with a situation/context analysis or a value chain analysis;
- It should provide not a recipe, but a framework with steps to follow, starting with problem identification and cover both what to do and what not to do;
- The main criticisms of IPs are that they are too expensive and do not take you to scale but we can develop case studies on the SRFSI business models and present them as part of a scaling endeavour, demonstrate a range of scaling strategies, explain the elements of scaling;
- One large excellent IP or multiple IPs could both be viable;
- It could be done with videos that link back to the guidebook. Ram Dutt of Bihar Agricultural University offered to do this as the campus has an active media studio/social media laboratory which so far has earned 1 lakh via YouTube;
- There are already multiple guidebooks: why not copy and paste from an existing one? You have to answer John Dixon's question: why is a new guidebook needed? However, it is important to start a guidebook with the context in which it is to be used
- For the KALRO guidebook, we held a workshop and got the 20 participants to write an account of what they did. This helped to create a common thread and was converted into IP steps. There is a need to reflect upon your experiences and derive the minimum level of guidance for others from them;
- Build on the KALRO guidebook, use questions it doesn't ask, pick topics that build on ACIAR's guidance so that there is no duplication. Bring out the issue of the environment, on differences in the South Asian setting. The field is moving fast so Africans can borrow some ideas from here;
- An on-line resource received a lot of support: a living document so you can keep improving it as it develops;
- You could divide it up by technologies or by countries. You could track change the KALRO guidebook: customising, adapting and modifying it to make a South Asian version by adding the business models;
- Link it back to the gaps in skills and competencies of the potential EGP IP facilitators. Perhaps a new chapter that serves as an educational tool, an educator's guide – use it as an innovation showcase;
- Do video role plays: for example, of middlemen cheating farmers; use humour; and
- A cinema approach is good for reaching the illiterate.

Approach:

- Write first in English then needs to be translated/dubbed into Bangla, Hindu and Nepalese;
- Principles are the same but experiences different: cross-learning 3 countries;
- Models different;
- Institutions differ: how to innovate around institutions;
- Service entrepreneurship;
- Use acknowledgement of existing guidebooks and cross-check against them; and
- Aim for consistency from chapter to chapter: difficult with multiple authors.

Target audience:

- Use as curriculum development: student work book that accompanies it, for example, a 5 day master class in IPs; BAU has AIS already in syllabus: it is an ICAR mandated course and part of the PhD course.
- Experiential base: identify examples drawn from on-ground level and augmented by 2-3 minute videos;
- Explore other projects in the region that utilise an IP approach and link to their examples and experiences;
- Have an on-line/web version where it would be possible to could click on countries and regions for specific examples; eases up-dating; more of a living resource;
- Approach ACIAR about resourcing to mount an intensive writing workshop (5 days) followed by editing; and
- Shared ownership is important: don't let one country be perceived as owning it; it needs to be genuinely regional to support wide adoption. Should not be seen as ACIAR's document.

Chapters:

1. Introduction and definitions of IPs, CASI, (linked to a glossary at end of book defining terminology such as agri-food system, stakeholder etc):
    a. Success stories embedded throughout chapters;
2. IP Framework/structure:
    a. Problem/challenge identification and situational analysis: story of our entry point was FGDs; partnering for innovation "one person's problem is another's opportunity": how stakeholders come together to resolve a problem;
    b. Opportunity identification: top down versus bottom up focus on particular issues and needs;
    c. Targeting specific farming communities: segmenting the market according to different characteristics, level of social capital/social infrastructure, gender (e.g. male labour out-migration), new versus established farmer groups;
    d. Soft skills and facilitation;
    e. Enabling environment;
3. Planning and Implementation;
4. Management of IPs: networks, social capital, communication;
5. Problem shooting: tips, conflict resolution, power and influence, for example, managing dominant personalities, burn-out of facilitators;
6. Scaling up and out: business model development, revisit top-down vs bottom-up tension, strengthening entrepreneurs;
7. ME&L: scorecard assessments, designing indicators of successful IPs, economic quantification of benefits and impacts (to attract further support, part of upscaling and policy purchase); and
8. Building structures for sustainability: how to become economically self-sustaining, (business model examples), partnerships, market management, accountability and ensuring benefit sharing, empowerment.

Appendices/Annexes: Methodologies:

- Linked to on-line resources;
- FGDs/farmer need assessment;
- Site selection;
- Stakeholder analysis;
- Value chain analysis;
- Social Network Analysis;
- Gender analysis;
- How to motivate stakeholders/incentives;
- Situational analysis; and
- Scorecard assessments.

8. Development of Policy Brief

These are the notes taken during the discussion. Subsequent to the workshop, a Policy Brief on IPs was drafted, and is shown in Appendix 2.

- Aim for 3 pages, and need support from IFPRI (and communications people).
- Purpose: Focus on supporting IP from a high level.
- What are we trying to convey?
    - Lead-in, but impact is not fast enough or comprehensive: still widespread poverty and food insecurity (is a result of many things). Current system is disjointed. Agriculture and rural areas is changing rapidly, therefore need an alternative approach;
    - We can reach more people with money already committed;
    - Need support for a range of capacity, not just improving technical aspects;
    - Support existing extension services to assist with facilitation;
    - Build on existing systems but add-value;
    - Gender inclusiveness (can suit various government targets); and
    - Include relevance and inclusion of minority groups.
- Example (make location specific):
    - Good example from each jurisdiction;
    - What are the specific indicators that are needed (to have resonance for policy makers);
    - Impact: what is real impact?
- Can reach more end-users with similar resources (more bang for your buck):
    - Flexible approach; and
    - Rural development tool.
- What do we want policy makers to change? Specific messages:
    - Institutionalise support for IP through Agricultural Universities and agricultural ministries (country and state-levels) cooperative department to provide mandate;
    - Linkages with other parallel programs; and
    - Mechanisation programmes.
- Who is it for? Who do we give this to?
    - University research organisations;
    - Agriculture ministers and directorates;
    - Planning commission;
    - NABARD, BGREI (District ag bank, rural devt bank, regional rural bank);
    - Business approaches;
    - NGOs (BRAC → women-centric loans) RDRS (can provide micro-credit);
    - Corporate Social Responsibility opportunities (various business); and
    - World Bank, international finance corporations, Asian Development Bank, IFAD.
- Policy brief needs to supplement other forums and meetings. It should not be seen as the answer to everything. Need constant communication using a variety of tools.
- Link with good news brochures.
- Demonstrate net worth and net benefit.
- Fertiliser manufacturers (assist with sponsorship).

9. Outline for a journal paper

We were running out of time during the workshop, but Peter Brown and Toni Darbas shared a rough outline for a journal paper reviewing IPs and looking at how they could be used in South Asia (in the EGP context). Further work on the manuscript is planned through 2018.

Proposed Title: Utility of Innovation Platforms to catalyse adoption of conservation agriculture technologies in South Asia

Proposal Authors: Toni Darbas, Peter Brown plus anyone else that wants to participate (offer is open to all IP colleagues)

Abstract: Conservation agriculture has been proposed as package of technologies that could be used to improve smallholder farm productivity and profitability. However, existing extension systems are not set up to enable widespread adoption to have the impact necessary to solve food security and livelihood requirements. There are particular challenges in South Asia, where rates of poverty is high, land size is small and fragmented, there are low wage rates, poor extension services, feminisation of agriculture and male labour out-migration. Our aim was to examine the utility of Innovation Platforms as a tool to catalyse adoption of conservation agriculture technologies for smallholder farmers in South Asia. We reviewed a range of approaches for establishing multi-stakeholder forums to work in a participatory manner with a range of farming and rural stakeholder to identify problems, identify solutions and find ways to achieve goals. Innovation Platforms were identified as an approach potentially suitable for use in South Asia. It has been used extensively in Africa, but needed some modifications to make it suitable for the local conditions and institutional environment found in South Asia. IPs were implemented and through multiple evolutions of training, support, review, learning and modification and there were ~40 village-level ("node") IPs and ~10 District-level IPs established across terai of Nepal, north-western Bangladesh, and Indian states of Bihar and West Bengal. We found that IPs were an effective approach to allow widespread uptake of conservation agriculture with benefits to smallholder farmers, benefiting input and output suppliers, promote entrepreneurs and local businesses and enable extension systems to be more efficient. Through our case studies, we need to look at opportunities for providing high-level policy support to assist with broad scale support to have wider impact to assist with wider scale adoption of CA for productivity and productivity to assist with food security and livelihoods.

Introduction

- Current problem
- What have others done
- Paper aims

Brief review of IP literature

- Mini review of IP-type approaches (African/CGIAR)
- Farming systems in South Asia – the need for intensification to achieve FS
- What we hoped IPs would achieve for CASI in EGP

Methods

- IP Approach utilised in EGP
- IP training and support provided

Results and Discussion

- Implementation of IPs
- Case studies
    - Nepal – fragile context
    - Bihar – the difference a large maize market and aid flows make
    - West Bengal – convergence and business models
    - Bangladesh- RDRS' rural development

- Key attributes and contexts
- What still needs to be resolved – policy traction and scaling

Conclusion

Potential Journals:

- *Development in Practice*
- *Agricultural Systems*
- *Agriculture & Human Values*

10. Review of Expectations

We revisited the expectations that we set out on the first morning. We met everyone's expectations, except there was one that we still need to work on: "Strengthening of entrepreneur?", and we are still working on five others (work in progress; these will be worked on through existing on-going work and through the development of the Guidebook):

- Concepts /guidelines of IP?
- IP methodology & working context?
- Institutionalisation of IPs at District level?
- Learn not only success factors but also failures/unsuccessful cases (the group thought that success factors were well recognised, but we needed to identify more examples of where failures exist and to capture that more formally).
- Does IP model change based on gender relations/household context?

Expectation	Achieved?
• Sharing of learning and areas to improve	✓
• Learning experiences going on in South Asia and integrate African & Asian best practices	✓
• Concepts /guidelines of IP?	✓ **Work in progress**
• Role of research institutions in IP?	✓
• Sustaining the IP/system?	✓
• Strengthening of entrepreneur?	**Future action**
• Integration/coordination of the stakeholders?	✓
• How best can we deliver outreach and input through IPs?	✓
• IP methodology & working context?	✓ **Work in progress**
• IP is formal or informal? How to make it efficient?	✓
• Basic criteria for IPs? (geographical locations)	✓
• Success factors of IPs in Africa & how can it be replicated in South Asia?	✓
• Institutionalisation of IPs at District level?	✓ **Work in progress**
• Formalising IPs in National systems?	✓
• How to run IPs smoothly & sustainably?	✓
• Actors and actions & success factors for operating private sectors in IPs?	✓
• Mainstreaming of IPs?	✓
• IP modalities?	✓
• Learn not only success factors but also failures/unsuccessful cases	✓ **Failures: factors but not examples from our work**
• Are IPs effective to every farmers?	✓
• Motivation to IP members/stakeholders?	✓
• Does IP model change based on gender relations/household context?	✓ **Work in progress**
• IPs considering only farming issues? What about its role in addressing non-farming operations?	✓
• What skills are needed to run IPs?	✓

11. Conclusions and recommendations

11.1 Conclusions

Workshop was highly successful and was considered by all participants to have met its stated aims and objectives. The SRFSI project is now in a good position to be able to capitalise on the outcomes from this workshop. The achievements against the workshop objectives and outputs are described below:

Objective	Achievement against Objective
1. Value-add to ongoing development and implementation of IPs through the existing SRFSI project through a focussed and facilitated workshop	• **Completed**: Four-day facilitated workshop completed with 20 key SRFSI project participants, including representatives from Africa (Kenya) and Southeast Asia (Laos) to discuss progress made to date with SRFSI IPs. Workshop included presentations, discussions and a field visit to a functional IP in Rangpur, Bangladesh.
2. Identify and learn from successes and failures and to consider strategies to improve overall functioning and benefits of IPs	• **Completed**: The workshop was designed to learn about successes and failures and then design clear strategies and recommendations to improve overall functioning and benefits of IPs, specifically across the four SRFSI project locations.
3. Synthesise experiences to contribute to a better understanding of IP in the region and to make future IPs more effective either in subsequent phases of SRFSI/SDIP or new initiatives	• **Completed**: Key learnings and outcomes from the workshop were synthesised during the workshop. Key recommendations for the continuation and further support of IPs have been included in the SRFSI Variation 3. These have been further refined through the development of a Policy Brief, and are being written up as a scientific article to consolidate thinking and improve outcomes through peer review.

Desired outputs from the workshop were:

Outputs	Achievement against Outputs
1. Synthesised knowledge about IP operation in the region, and how that incorporates and compares to international experiences. These would be translated into key recommendations for effective IPs, written as a comprehensive report from the workshop, outlining regionally specific learnings, challenges and opportunities to improve IP functionality in the future	• **Completed**: A Report from the workshop was completed. This was further refined as a Final Report for the SRA (this Report). These reports identify key recommendations, regionally-specific learnings, challenges and opportunities to improve IP functionality in the future.
2. Establishment of a writing team and an agreed process for producing a IP Guidebook catering for the specific needs of stakeholders and unique characteristics associated with the Eastern Gangetic Plains	• **Partially completed**: A writing team further progressed information for a Guidebook, but further work is still required. This involved compiling relevant information into a central location, building a web-based tool, and starting a process to make some relevant videos.
3. Establishment of a writing team and an agreed plan for development of a journal paper reviewing learnings from implementation of IPs for SRFSI in the EGP	• **Partially completed**: A writing team has further progressed this journal paper, but it is still in draft form. It will be completed during 2018.
4. Establish a writing team to develop a policy brief on IPs	• **Completed**: A draft Policy Brief was completed and has been circulated to key staff for input and finalisation. The Draft is included in this Report (Appendix 2).

The successful aspects of IPs were described as:

- Increased integration;
- Business service provision is made easier;
- Fast tracked agri-extension;
- Enhanced quality input consciousness;
- Enhanced gender equity (bargaining power) – especially tribal people who lag behind other farming communities;
- Social cohesiveness and inclusion increased;
- Political advantage (local vote catching – vote banks);
- Improved skills and knowledge of farmers;
- Attitudinal change from subsistence to commercial;
- Role as interface between researchers and farmers, extension system, input providers – improves all linkages between these stakeholders;
- Demand for inclusion in policy framework;
- Social caste and status differences are being gradually reduced – gradual flattening of hierarchies; and
- Profit sharing – e.g. between men and women; easier in an IP platform.

11.2 Recommendations

It will be important to continue to support implementation of IPs. This will be a key component in the Scaling Variation to enable scaling of CASI technologies across the EGP.

The key attributes of effective IPs are:

- Built on existing social infrastructure: develop and build capacity of existing farmer groups rather than creating new groups (which takes time): don't reinvent the wheel;
- Support existing extension mandates: assist government extension agencies (e.g. DOA/DAE/DADO) to fulfil group extension mandates;
- Identify and access subsidies: to establish machine hub hire services;
- Empower women and youth: include, employ and empower women and youth (e.g. CBFs, mechanics, drivers, poultry, fisheries, mushroom production, transplanter rice seedlings);
- Build business models and increase bargaining power: input shops, maize contract, maize marketing, seed production, CASI machine services; aggregate input demand and produce for improved prices; and
- Employ ICTs: use electronic payment systems, market information, pest, weed and disease diagnosis.

How to measure success (M&E and indicators):

- Include policy influence and employment creation as an IP success factor;
- Use a mixture of qualitative and quantitative indicators of success;
- New IPs will also require a baseline to be established in order to measure change;
- Easier to use a scorecard approach;
- Reaching economies of scale is a good indicator;
- The indicators need to drill down to the next level, especially cost economics;
- Indicators need to go into the IP protocol; and
- ACIAR and CIMMYT will need to help with alignment of indicators to project and national objectives.

Examples of indicators:

- Are objectives being achieved (yes/no)?
- What is the effect on other areas of household (food sufficiency/education/ health & nutrition/ other income generation/ capacity)?

- What is the capacity of the group (human resource, skill, financial)?
- Is there recognition (social/formal/legal)?
- What potential is there to start agri-business?
- What is the diversity within the group (stake-holders from different sectors)?
- The number persons that receive benefit from it?
- What is the area coverage?
- How much women participation in the activities?
- What is the cost and economics of the technologies?

How to capture success and failures and/or stories for policy planning:

- Photographs and case studies, success stories, videos/documentaries of farmer testimonies ("my life was here and now it is here": better food security, housing, livestock, buy land education and health, family uplift, income levels lifted);
- Quality learning/discussion results in beneficial impacts: empowerment of women, increased confidence and capacity to continuously innovate;
- Increased social capital and cohesion;
- Increased productivity, risk reduction, motivated and entrepreneurial attitude, business outlook, increased input/output market access, receptivity to new technology, collective bargaining power;
- Gender equity: equal participation in decision-making and income generation/ management. Breaking barrier of male dominance and enabling women to participate in all activities, encouraging women to use light/small scale agricultural machinery. An evolution towards equality;
- Improving efficiency of value chain, facilitation of value adding (processed products for e.g. packaging, branding and selling lentils in West Bengal; rice seedling production), creation of new value chains;
- Creation of enabling environment for surrounding villages: local spill-over effects and encouragement of farmer to farmer extension (e.g. FCs building capacity of further FCs); and
- Encouragement of engagement of youth in agriculture, harnessing ICT skills-documentary.

How to formalise IPs in national systems (policy):

Extension programs are established by Ministries of Agriculture which makes them a key target to influence:

1. Approaching and appraising departmental, institutional and funding heads, including having TP Tiwari (CIMMYT Project Leader for SRFSI) approach Director Generals;
2. Get them to approach next level in hierarchy;
3. Simultaneously convincing political personnel of success of method;
4. Organising exposure visits: seeing is believing (credibility); authorise them;
5. Policy briefs, success stories, journalists/media work: circulate documents/ videos/ documentaries with tangible outcomes/quantification (imply political capital can be made);
6. Next planning meeting: invite high level personnel and media;
7. Inclusion of IPs in national extension policy and academic curricula: create graduates skilled in facilitation and empowerment via academic council which are chaired by VCs and via DG of ICAR in India;
8. Including in national agricultural policy and research strategy plans or advice on operationalise plans, write regulations under legislation: good advice on how to implement by including IPs; and
9. Organise a high level international meeting to present evidence: who has the mandate – SAARC South Asia Association for Regional Cooperation or SAC SAARC Agriculture Centre is the appropriate wing and is headquartered in Dhaka (TP and PK Joshi of IFPRI could facilitate).

How to involve input and output models (value chains) and business development framework/models:

- Link with value chains: there needs to be strong links with input and output markets; and
- Development on business models: to enable entrepreneurs, service providers and IPs themselves to run viable businesses.

How to build sustainability of IPs

There are a series of issues that can help build the sustainability of IPs:

- IPs need to show success factors and show benefits (but also highlight challenges);
- There needs to be continuity;
- More capacity building is required for Master trainer and networking;
- CASI is an entry point, with a focus on machinery;
- Make strong links with research institutes for the right technology and link with private and public actors;
- Engage with stakeholders and consider their motivations and incentives (so they get benefit);
- Develop entrepreneurs through local service providers (LSP) and business promoters;
- It is business (not just improved yields) – everyone should receive benefits and involve strong partnerships;
- Formal social responsibility with broader benefit back to the whole community;
- Priorities technologies (and systems) to be applied to different crops: these need to be successful;
- Choose the right stakeholder;
- Issue about whether should address all crops? E.g. what about Jute, potato and vegetables?
- Women wish to look at value-adding crops such as kitchen gardens;
- Option to focus on cereal-based systems (many other things fall under that). No need to be rigid: it will help to bring in what you want. Help with overall food security agenda
- Facilitation is important;
- Training, especially for service providers;
- Overall needs to be profitable;
- Option for machinery bank: fund for supporting maintenance of machines and their repairs; and
- Include financial services.

Areas for further work are:

Capacity building of different stakeholders:

- Facilitation: soft skills/communication, emotional intelligence, emotional control to avoid conflict;
- Technical: increasing competence;
- Market: how to sell produce, identify potential markets;
- Strategy/roadmaps: ten year strategy to establish what resources need – this requires guidance;
- Financial: maintain accounting system etc.;
- Business: a business temperament;
- Champion farmers: respect/recognition that you are the leader – instils pride;
- Need a critical mass of people to call upon to establish new/further IPs, departmental person who is good at it to call on to go to another jurisdiction; and
- Successful demonstration: field day, inviting dealers – encouragement to join hands.

Managing power imbalances:

- Everyone gets to speak, all perspectives, increasing inclusiveness is critical. However, someone always dominates: good exercise to split into smaller groups – dilutes the influence of the dominant personalities;
- Gender: encourage participation by women where they are not speaking as much; and
- Shared leadership: rotating leadership – every one or two years use a voting system to select new leaders. A motivation to speak up, do your best, and be selected as leader.

Diversity of stakeholders:

- Depends on value chain: who is important in the value chain;
- Engage private sector; and
- Good facilitator.

Sustainability:

- Attitude towards becoming business oriented: pathway to IP sustainability;
- Scaling up within the system to policy: second phase/next level, e.g. input dealer to agri-business company, export markets, continue to innovate and explore;
- Build capacity of lead farmers; and
- Feedback: improve information flows, M&E, performance indicators or scorecard approach, giving homework aligns well to indicators of success.

12. Appendixes

Appendix 1: Agenda for Innovation Platforms Review Workshop, RDRS, Rangpur, Bangladesh, 7-10 September 2017

Key Objective of the IP Review Workshop

This Review Workshop is designed to review and evaluate Innovation Platforms (IPs) that have been running as part of the Sustainable and Resilient Farming Systems Intensification (SRFSI) project in the Eastern Gangetic Plains (EGP), and to synthesise critical operational factors for improved effectiveness of future initiatives. IPs were designed to be multi-stakeholder forums linking private, civil and public sector stakeholders (including markets and other private micro-entrepreneurs) to collectively identify and work towards overcoming barriers to improving agricultural productivity. There are about 40 IPs in various states of effectiveness that have been running over the last two years, and it is timely to review progress made, identify and learn from successes and failures, and explore opportunities for scaling out SRFSI tested technologies. This workshop is designed to:

1. Value-add to ongoing development and implementation of IPs through the existing SRFSI project through a focussed and facilitated workshop,
2. Identify and learn from successes and failures and to consider strategies to improve overall functioning and benefits of IPs, and
3. Synthesise experiences to contribute to a better understanding of IP in the region and to make future IPs more effective either in subsequent phases of SRFSI/SDIP or new initiatives.

Desired outputs from the workshop are:

- Synthesised knowledge about IP operation in the region, and how that incorporates and compares to international experiences. These would be translated into key recommendations for effective IPs, written as a comprehensive report from the workshop, outlining regionally specific learnings, challenges and opportunities to improve IP functionality in the future;
- Establishment of a writing team and an agreed process for producing a IP Guidebook catering for the specific needs of stakeholders and unique characteristics associated with the Eastern Gangetic Plains;
- Establishment of a writing team and an agreed plan for development of a journal paper reviewing learnings from implementation of IPs for SRFSI in the EGP; and
- Establish a writing team to develop a policy brief on IPs.

The workshop will include the following activities:

1. Present experiences from local partners and selected international experts from Africa and Southeast Asia. Each presenter will be asked to prepare PowerPoint slides for the following topics:
    a. Background information about IPs (how many established, how functioning, topics covered, membership and role of local entrepreneurs and business etc)
    b. Entry points (marketing, mechanisation, inputs, outputs)
    c. What worked
    d. What didn't work
    e. Node vs District levels
    f. Utility of IPs for women & other disadvantaged or marginalised groups
    g. Institutional implications
    h. How to sustain IPs in the future
    i. Policy implications
    j. Learnings
    k. Challenges

I. Opportunities

2. Facilitate sessions to discuss what needs to be done to improve IPs, markets opportunities, overcome policy constraints, focus on benefits for women and other marginalised groups, etc (material will be collected on a white board or large sheets of paper as we go),
3. Share resources: bring along copies of resources you have been using so we can share and exchange ideas,
4. Undertake a field trip to see an IP to observe and discuss opportunities and limitations of IPs,
5. Review successes and identify critical success factors,
6. Identify key constraints and critical operations for outscaling and upscaling,
7. Plan a strategy to improve running of IPs for SRFSI and for other future initiatives, and
8. Identify the format for an IP Guidebook that is relevant for local stakeholders.

Agenda

Day 1 (7 September 2017)				
8:30	8:45	0:15	Welcome, Background & Overview	Mamun & Peter
8:45	9:15	0:30	Introductions & Expectations	All
9:15	9:45	0:30	Context setting	Peter
9:45	10:15	0:30	*Morning health break (tea/coffee)*	
10:15	10:55	0:40	Africa presentation *(40 mins)*	George & Felister
10:55	11:35	0:40	SE Asia *(40 mins)*	Tamara
11:35	12:15	0:40	Africa & SE Asia IP panel discussion *(40 mins discussion)*	Felister, George & Tamara
12:15	13:15	1:00	*Lunch*	
13:15	13:55	0:40	Nepal *(30 mins + 10 mins discussion)*	Nepal
13:55	14:35	0:40	Bangladesh *(30 mins + 10 mins discussion)*	Bangladesh
14:35	15:05	0:30	*Afternoon health break (tea/coffee)*	
15:05	15:45	0:40	Bihar *(30 mins + 10 mins discussion)*	Bihar
15:45	16:25	0:40	West Bengal *(30 mins + 10 mins discussion)*	West Bengal
16:25	16:45	0:20	Field observations and reflections *(10 mins + 10 mins)*	Jay
16:45	17:15	0:30	General discussion + highlights of the day	All
Day 2 (8 September 2017)				
8:30	10:00	1:30	General Discussion *(entry points, Node & District levels, utility of IPs for women farmers and other disadvantaged or marginalised groups, institutional and policy implications)*	All
10:00	10:30	0:30	*Morning health break (tea/coffee)*	
10:30	12:30	2:00	Group activity: similarities & differences	All (Peter/Toni)
12:30	13:30	1:00	*Lunch*	
13:30	15:00	1:30	Learnings to date	All (Peter)
15:00	15:30	0:30	*Afternoon health break (tea/coffee)*	
15:30	16:15	0:45	Discuss outline of Guidebook	All (Toni)
16:15	17:00	0:45	Plans for field trip: what do we want to see?	All
Day 3 (9 September 2017)				
8:30	17:00		Field trip to see an IP	All
Day 4 (10 September 2017)				
8:30	10:00	1:30	Revision/progress made	All (Peter)
10:00	10:45	0:45	Key highlights: Successful aspects of IPs	All (Toni)
10:45	11:30	0:45	Key highlights: Areas that still need development	All (Peter)
11:30	12:00	0:30	*Morning health break (tea/coffee)*	
12:00	13:00	1:00	Planning: What needs to be done for SRFSI for remainder of project? Current IPs and future IPs.	Peter
13:00	14:00	1:00	*Lunch*	
14:00	14:45	0:45	Finalise plans for Guidebook	Toni
14:45	15:30	0:45	Discuss plans for review paper	Peter
15:30	16:00	0:30	*Afternoon health break (tea/coffee)*	
16:00	16:45	0:45	Discuss ideas for policy brief	Peter
16:45	17:15	0:30	Review expectations + final wrap-up	All (Peter)

List of participants:

Name	Organisation	Email address	Roles & responsibilities
Peter Brown	CSIRO	Peter.Brown@csiro.au	Project Leader & Workshop Facilitator
Toni Darbas	CSIRO	Toni.Darbas@csiro.au	Key support person
TP Tiwari	CIMMYT	T.Tiwari@cgiar.org	Participant and PL for SRFSI
Mahesh Gathala	CIMMYT	M.Gathala@cgiar.org	Participant
Sofina Marhajan	CIMMYT	Sofina.MAHARJAN@cgiar.org	Participant
Fay Rola-Rubzen	Curtin Uni	F.Rola-Rubzen@curtin.edu.au	Participant and Support Person
Dinesh Thapa	NARC	darlami.dinesh@gmail.com	Local IP coordinator and Participant
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Kuhu Chatterjee	ACIAR	Kuhu.Chatterjee@aciar.gov.au	Keen supporter
George Mburathi	ACIAR consultant	gmburathi@gmail.com	International IP expert
Felister Makini	KALRO	Felister.Makini@kalro.org	International IP expert
Michael Misiko	CIMMYT	mmisiko@hotmail.com	International IP expert
District Support x2??	Rangpur	??	District Support (Rangpur)
Mr. Aslam (Local coordinator)	RDRS	gh@rdrsrangpur.org (+01730 328018)	Local organising
			Total confirmed = 21

Appendix 2: Draft IP Policy Brief

Using multi-stakeholder groups to help farmers maintain sustainable and resilient farming systems in the EGP

Traditional extension approaches are largely becoming irrelevant and ineffective as farmers look towards embracing new methods of accessing information and learning about new farming practices. New ways of working are needed to bring together different stakeholders to solve problems in agricultural systems. A new approach called Innovation Platforms (or IPs) can improve the reach of extension programs to identify and overcome key constraints for adoption of CASI technologies leading to improvements in productivity and profitability for smallholder farmers.

Major highlights

What is the problem?

- Current extension systems do not work. There are simply not enough extension officers (1 extension officer to 2,000 or 3,000 farmers), and they are poorly resourced and often lack up-to-date knowledge of current technologies. The current system is disjointed and extension mandates are limited and often unworkable. Many extension curricula are outdated, meaning it will take a long time for the existing extension system to reach farmers rapidly.
- Impact is not fast enough or comprehensive. There is still widespread poverty and food insecurity (as a result of many things) and at the same time, agriculture and rural areas are changing rapidly.

What are IP/MSG?

- Innovation Platforms (IPs) are being suggested as an alternative approach to the existing extension system. IPs are multi-stakeholder forums that link private, civil and public sector stakeholders (including micro-entrepreneurs) to collectively identify and work towards overcoming barriers to improving agricultural productivity and profitability. The forums (1) diagnose problems, (2) identify opportunities, (3) find ways to achieve goals, and (4) create mutual benefits with stakeholders.

How can IPs help farmers maintain sustainable farming systems?

- Well-structured IPs would allow **convergence with government Programs** and help with accessing CASI-centric subsidies. This would assist the desire of Governments to improve reach of machinery for benefit of increasing productivity.
- IPs can be established to **ensure gender inclusion strategies** and benefits for poor marginal farmers.
- IPs can **reach more end-users with similar resources** (more “bang for your buck”) because it is a flexible approach, and utilises well-recognised rural development approaches (Participatory Action and Agricultural Innovation Systems approaches).

What can policy makers do?

- IPs need to be supported through the following policy recommendations:
  1. Support farmer groups/clubs to become IPs or allow them to do the things that IPs do;
  2. Provide funding for IP establishment, training support for IP facilitators, and cross-visits to learn from others;

3. Embed IPs and support for IPs through extension agencies and research agencies. Give recognition/mandate for involvement in IPs;
4. Provide institutional credit to IPs;
5. Update university curriculum to support IPs through focus on Agricultural Innovations Systems thinking, facilitation, partnering and gender mainstreaming; and
6. Design subsidy programs to be IP friendly.

What is the problem?

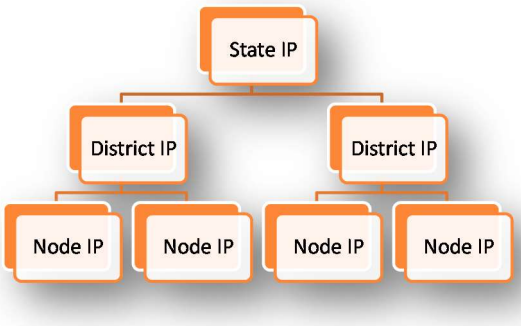
This policy brief is designed to introduce the concept of Innovation Platforms (IPs) and how they can be used to support extension systems to reach a large number of farmers to improve adoption of CASI technologies (link to CASI policies). Impact is not fast enough or comprehensive – there is still widespread poverty and food insecurity across the Eastern Gangetic Plains (which is a result of many things). The current system is disjointed. Agriculture and rural areas is changing rapidly. We therefore need an alternative approach.

The current extension systems are not effective in extending CASI technologies. In the Eastern Gangetic Plains, the ratios of public extension officers and farming households vary from 1:2,000 to 1:22,000 (one or more villages). This means that effective and efficient group methodologies are required to disseminate new agricultural technologies. Existing extension systems can be supported to assist with facilitation but add-value through wider stakeholder engagement to address significant barriers or bottlenecks.

Governments in the EGP have a desire to double farm household incomes. Supporting development of IPs can significantly help with this through multi-stakeholder forums to identify bottlenecks and identify solutions and offer an avenue for dissemination of CASI technologies to help achieve this target. There is ample evidence that CASI technologies increase farm incomes, reduce labour, reduce water requirements and can be sustainable and resilient. In additional supporting CASI technologies, widespread benefits will occur through connection of micro-entrepreneurs, custom hire centres, repair and maintenance shops, single-window agro-vets, and through improvements in access to credit.

In order to achieve improved productivity and profitability for farmers, there needs to be a range of support for a range of capacities, not just improving technical aspects. These would include EXAMPLES.

Ideally, IPs should be established at local levels (eg community) and be nested with higher level (eg District-level) IPs to have wider impacts. Gender inclusiveness and involvement of minority groups can be a main feature of IPs, and can suit various government targets. Through effective IPs, it would be possible to reach more people with money already committed, in other words, we can reach more end-users with similar resources (more bang for your buck). It is a flexible approach and utilises a range of rural development tool.



What is the solution?

IPs are a well-established tool in Africa, but it has yet to emerge in South Asian, despite many similarities in farming systems and pressures on farmer livelihoods. The SRFSI project has been trialling IPs across 40 Nodes and in 4 Districts in the Eastern Gangetic Plains. There are many highlights and significant learnings.

Successful IPs were set up through existing farmer groups/organisations. Effective IPs are:

- Built on existing social infrastructure (don't reinvent the wheel);

- Assist government extension agencies (e.g. DOA/DAE/DADO) to fulfil group extension mandates;
- Identify and access subsidies to establish machine hub hire services;
- Include, employ and empower women and youth (e.g. CBFs, mechanics, drivers, poultry, fisheries, mushroom production, transplanter rice seedlings);
- Build business models (input shops, maize contract, maize marketing, seed production, CASI machine services);
- Increase bargaining power by aggregating input demand and produce for improved prices; and
- Employ ICTs (electronic payment, market information, pest & disease diagnosis).

IPs can enhance partnership and increase utilisation of innovation/technologies and is beneficial to all (win-win), increase productivity and can be used for upscaling. A key factor of success has been the involvement of a range of stakeholders to discuss and identify possible interventions or solutions to particular problems with local context.

Some of the net worth and net benefits include: EXAMPLES (boxes).

The focus of these IPs are on:

- Improving access to services;
- Increasing profit;
- Seeking win-win conditions for both provider and receiver;
- Making extension more efficient;
- Solving other problems and benefit the wider community;
- Raising profile through formal recognition of IPs; and
- Evolving into agri-business models (a range of models are emerging from different jurisdictions which are context specific).

Case study: Aranyak Producer Company (box)

Activities of IPs

An effective and efficient IP can provide a one-stop-shop of affordable services that would otherwise not be available to small and marginal landholders. User-pay service provision can continuously provide new and improve existing livelihood options (e.g. livestock immunisation, fingerlings etc) as well as create new jobs (e.g. ICT services, CA drivers, CBFs). The options listed below all form opportunities for the development of micro-entrepreneurs at the village level by dint of an IP forming commercial linkages to bigger players beyond the village. Focus areas for IPs would include:

PROVEN	• CASI agronomic & machinery services (e.g. tractor + CA attachments + skilled operator + spare part & repair service) - employs drivers, mechanics and CBFs • Aggregation and sale of inputs and outputs - as per the Aranyak/de haat model • Community seed production/contracting/marketing - ensuring local availability of timely, high quality seed, organising seed certification, marketing and sale • ICT services - e-banking, rapid pest and disease advice, multi-purpose village portals
POSSIBLE	• Individual credit - can act as local bank due to informational advantage re. credit-worthiness • Livestock & forage advice and services (e.g. immunisation and animal nutrition advice) • Vegetable contracting and marketing - aggregation, cold storage and marketing • Metred irrigation and rural energy supply - as per the Bangladeshi BMDA model

What can policy makers do to support Innovation Platforms?

Policy Recommendation 1*: Support farmer groups/clubs to become IPs (or at least have the ability to do the things that IPs do).* Existing farmer organisations can be developed into dynamic IPs by becoming registered civic organisations that rotate officer bearers and undertake transparent accounting. These groups could be farmer groups, clubs and self-help groups (intermediary

organisations) to form an innovation interface between extension officers and the broader farming community. IPs are required to both extend agricultural innovations to farming communities and to feed local advice upwards into centralised extension planning and programming. These groups need to sustainable so they do not dissolve when support gets withdrawn.

Policy Recommendation 2*: Provide funding for IP establishment, training support for IP facilitators, and cross-visits to learn from others.* Extension officers and IP facilitators require training in IP facilitation, monitoring and evaluation. Key attributes are for development of soft skills for good listening and facilitation. Funding support is required to support the establishment of farmer groups which could be supported to become IPs. Additional funding is required to support cross-visits and exchanges to improve learning outcomes.

Policy Recommendation 3*: Embed IPs and support for IPs through extension agencies and research agencies. Give recognition/mandate for involvement in IPs.* Re-directing extension program activities via efficient and effective IPs would increase the number and variety of farming men and women able to access agronomic advice and technologies. IPs can be sub-contracted to undertake line department extension tasks more efficiently and effectively than extension officers can (e.g. conduct demonstrations, organise field days). Annual and national flagship extension programs and demonstration plots could be held in a common and accessible hub (not restricted to wealthy farmers), field days arranged in villages (rather research stations), and integration between extension sectors improved by strengthening a role for IPs as one-stop-advice and service-shops. IPs can also be contracted to partners with relevant private (e.g. large agri-companies with seed production and/or distribution; contracted crop production) and civic organisations (e.g. NGOs) integral to agricultural production and rural livelihoods to lift agricultural production and incomes.

Despite widespread male labour out-migration resulting in the feminisation of agriculture, line departments do not treat women as cultivators requiring agronomic advice and services. Village based IPs can overcome the barriers faced by women farmers (e.g. mobility restrictions, drudgery, time poverty and illiteracy). IPs can integrate existing women's social infrastructure by including the women's self-help saving and loan groups established by public programming, and by NGOs specialising in capacity building and social mobilisation. This would desegregate advice and service provision to men and women and between livelihood activities (e.g. crop and livestock) to offer a holistic one-stop advice and service-shop for all farming households.

Policy Recommendation 4*: Provide institutional credit to IPs.* Availability of institutional credit to IPs is crucial in order that they can harness subsidies and invest in capital assets (e.g. meeting hall, shop-fronts, tractors and attachments, mechanical repair workshops etc) that are of use to the catchment of households (villages) the IP serves. As a registered organisation, an IP has the information necessary to extend individual credit and recover loans than banks. Funds can be directed to IPs via CSR funds, national agricultural banks such as NABARD or cooperatives.

Policy Recommendation 5*: Update university curriculum to support IPs through focus on Agricultural Innovations Systems thinking, facilitation, partnering and gender mainstreaming.* Although the traditional linear Transfer of Technology paradigm is out of date, it has yet to be replaced by an agricultural university curricula based on Agricultural Innovation Systems thinking. Graduates expected to work in agricultural extension need new skill in: facilitation and partnering for extension (e.g. with private sector actors, rural livelihood and social marketing NGOs), and gender mainstreaming in addition to CASI knowledge.

Policy Recommendation 6*: Design subsidy programs to be IP friendly.* Designing subsidy programs to enable collective ownership of STW, pumpset and CA machinery by registered IPs means that

affordable local rental services can be provided, institutional credit used to match subsidies and technical backstopping (e.g. spare parts and repair services) provided to a small and marginal landholders. IPs can achieve the economies of scale necessary for rapid farm mechanisation.

- Subsidy programs need to discourage cultivation (e.g. remove subsidies for rotavators) and favour CA equipment (e.g. ZT drills, MCPs, LLLs) to send clear messages regarding government policy settings for sustainable agriculture.
- Subsidy programs need to prioritise IP ownership of CA equipment, that is, be contingent upon provision of legitimate, inclusive and affordable machinery services via village based one-stop-advice and service-shops.

Sources for further information

Link to CASI policy briefs, SRFSI web site etc

Disclaimer

- *Who takes the ownership of the policy brief?*
- *Are there any legal implications?*

Appendix 3: Detailed notes from Presentations and Discussions

Welcome, Background & Overview

Peter Brown (CSIRO) welcomed everyone to the workshop and thanked them for coming to participate.

Mamanur on RDRS: RDRS was founded by a Lutheran Church organisation in 1972, following their return to the north-eastern site after the war of liberation from Pakistan in 1971. They began with sectoral activities including agriculture but have employed a livelihoods approach since 2005. They work in 16 districts and have kept their focus on the northeast due to its poverty but are now extending to the northwest. They now have 3,000 volunteers as well as national and international volunteers who work on capacity building. RDRS manages 40 projects and is strongly linked to universities and research institutes. Mamanur manages 10 projects and there is cross-learning between 3 of them including SRFSI.

Peter gave thanks to the following:

- RDRS for hosting us
- ACIAR for additional support to run this IP Review Workshop
- All staff for their work in implementing IPs and overcoming various problems
- African colleagues for travelling all this way to share their experiences

The purpose of the workshop was re-iterated:

- Review and evaluate Innovation Platforms (IPs) that have been running as part of the SRFSI project in the EGP
- Synthesise critical operational factors for improved effectiveness of future initiatives.

The aims of the workshop were to:

1. Value-add to ongoing development and implementation of IPs through the existing SRFSI project through a focussed and facilitated workshop,
2. Identify and learn from successes and failures and to consider strategies to improve overall functioning and benefits of IPs, and
3. Synthesise experiences to contribute to a better understanding of IP in the region and to make future IPs more effective either in subsequent phases of SRFSI/SDIP or new initiatives.

The desired outputs were:

- Synthesised knowledge about IP operation in the region, and how that incorporates and compares to international experiences.
    - Key recommendations for effective IPs,
    - Workshop report outlining regionally specific learnings, challenges and opportunities to improve IP functionality in the future;
- Establishment of a writing team and an agreed process for producing a IP Guidebook for the EGP;
- Establishment of a writing team and an agreed plan for development of a journal review paper from implementation of IPs for SRFSI in the EGP; and
- Establish a writing team to develop a policy brief on IPs

Peter Brown outlined the ground rules (we want good discussion, share concerns, we will gather feedback).

Ethics

Peter Brown asked the group for permission to take photos, the use of their names and comments which could enable identification individuals in the workshop report. Consent was indicated by all participants raising their hands.

Introductions & Expectations

Everyone introduced themselves (name, institution and location) and outlined how they have been involved in Innovation Platforms.

Guests

Jay: has a history of participatory outreach projects and has been hired as a consultant to undertake troubleshooting and opportunities for outscaling.

Lennart Woltering: was hired by CIMMYT (Mexico) 6 months ago to work on scaling innovations world-wide. He is interested in learning about the role of IPs in scaling - where science meets society. He is concerned with the question of the role of science in scaling. Lennart has a water engineering background - his entry point into agriculture was irrigation.

George Mburathi and Felister Makini: Felister works at the Kenya Agricultural and Livestock Research Organisation while George is the ACIAR Consultant in Africa both are based in Nairobi. IPs is what George does - his passion and hobby. Felister is the Deputy Director General Crops of KALRO and was previously the Deputy Director Outreach and Partnerships in KARI where she led partnerships for technology transfer looking for the best methodologies for dissemination of agricultural technologies. Her role is training in IP implementation. She coordinated the multi-authored ACIAR IP guidebook.

Tamara: is an ACIAR consultant, based in Laos. She ran a short project, which received a 12 month extension to introduce IPs to extensionists to intervene into mixed crop-livestock farming systems.

Expectations

The group considered what they wanted to achieve out of the four days of the workshop and these were captured on flip charts. These will be re-examined on the fourth day.

- Sharing of learning and areas to improve
- Learning experiences going on in South Asia and integrate African & Asian best practices
- Concepts /guidelines of IP?
- Role of research institutions in IP?
- Sustaining the IP/system?
- Strengthening of entrepreneur?
- Integration/coordination of the stakeholders?
- How best can we deliver outreach and input through IPs?
- IP methodology & working context?
- IP is formal or informal? How to make it efficient?
- Basic criteria for IPs? (geographical locations)
- Success factors of IPs in Africa & how can it be replicated in South Asia?
- Institutionalisation of IPs at District level?
- Formalising IPs in National systems?
- How to run IPs smoothly & sustainably?
- Actors and actions & success factors for operating private sectors in IPs?
- Mainstreaming of IPs?
- IP modalities?
- Learn not only success factors but also failures/unsuccessful cases
- Are IPs effective to every farmers?
- Motivation to IP members/stakeholders?
- Does IP model change based on gender relations/household context?
- IPs considering only farming issues? What about its role in addressing non-farming operations?
- What skills are needed to run IPs?

Context Setting

Peter Brown gave a short presentation

Context: Key production constraints

- Private sector is dominated by small, informal local players
  - Not integrated into value chains
  - Poor service (e.g. credit), un-innovative
  - Farm gate sales tend to dominate
- Dependence on monopolistic pump and tube rental markets (sub-optimal irrigation practices)
- Agencies are fragmented within and across private & civic sectors
  - Poorly coordinated
  - Low ratio of extension officer to smallholders
- Feminisation of agriculture and male labour migration

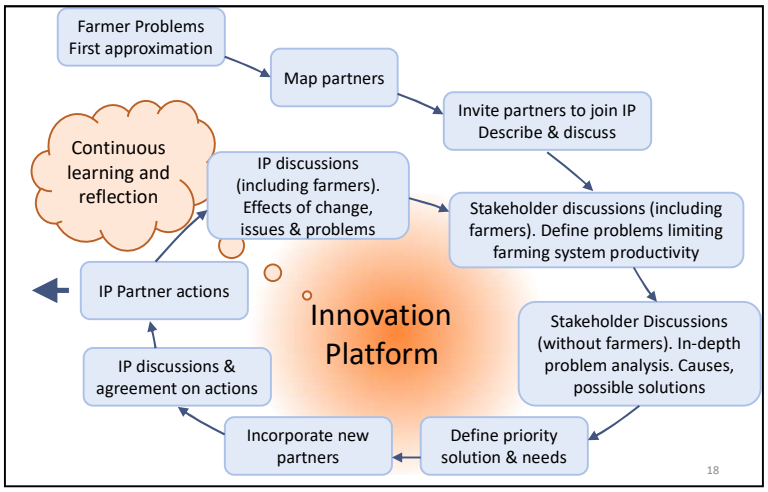
Context: Opportunities

- High rainfall
- Alluvial soils
- Social infrastructure (SHGs & farmer groups)
- Conservation Agriculture and Sustainable Intensification (CASI) can reduce costs
  - Mechanisation can save time, drudgery & labour costs
  - Helped women and other farmers to engage in other income-generating activities & household chores.

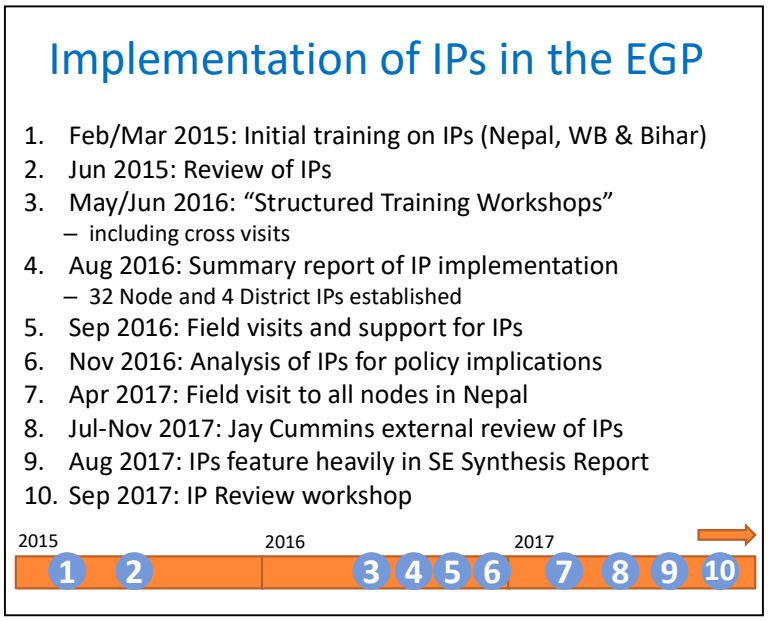
Innovation Platforms

- IPs were designed to be multi-stakeholder forums linking private, civil and public sector stakeholders (including markets and other private micro-entrepreneurs) to collectively identify and work towards overcoming barriers to improving agricultural productivity.
  - Diagnose problems
  - Identify opportunities
  - Find ways to achieve goals

The approach taken by the SRFSI project through the training conducted in 2015 was presented, then some of the resources that were used, the way things evolve over time and the IP model for SRFSI (below).



A summary of how IPs were initially set up, training and cycles of review and synthesis since 2015 (below).



Presentations

Africa presentation (George Mburathi & Felister Makini) - Innovation Platforms: The experiences in Africa

There are 53 countries in the African continent which represents considerable diversity. They are interested in hybridising ideas and consider it very important to facilitate such a workshop. Improving food security is a goal common to the developing world.

The African context is similar to that of South Asia:

- Inefficient value chains
- Lack of R&D attention to value chains
- Poor access to information and knowledge
- Market dysfunction
- Poor infrastructure
- Lack of value-addition
- High transport and transaction costs
- Gender disparities
- Low farm productivity
- R&D over-emphasis on crops at the expense of livestock
- Agriculture largely rain-fed/lack of irrigation
- Poor technological adoption/uptake
- Serious pest and diseases problems

SIMLESA (sustainable intensification of maize-legume cropping systems for food security in Eastern and Southern Africa) commenced in 2010 supported by ACIAR, implemented by CIMMYT and NARS in 5 countries (Ethiopia, Kenya, Tanzania, Malawi, Mozambique; + spill over countries Botswana, Rwanda, Uganda). There have been 2 phases. KALRO is an umbrella body over 4 organisations: KARI and the tea, coffee and sugar equivalents. KALRO has 16 research institutes as well as centres and sub-centres.

SIMLESA Vision of success:

- Increase maize & legume productivity by 30%, through improved varieties & practices, develop markets & value chains;
- scaling of CA based SI & scaling partners;
- reduce downside risk by 30%;
- benefits to 650,000 farm households

SIMLESA technologies:

- CA technologies: intercropping, rotation, nil or zero till, terracing, farrows & ridges
- Improved crop varieties (maize & legume)
- Moisture conservation, rainwater harvesting, mulching etc
- Post-harvest loss prevention, storage etc.

The expectation is to replicate the SIMLESA IP model across Africa, although this depends on the support of the development partners. Most countries are following the SIMLESA IP approach due to the grassroots impact it has achieved. The project is now in its second phase. Each phase received US$20 million. The aim is to raise maize and legume productivity by 30% and reduce risk by 30%. The aim is to reach 4,650,000 HHs by 2023. Scaling is undertaken by partners.

Why IPs?

SIMLESA to make a difference at grass roots level, disseminate research results

- A search for the best dissemination methodology became a priority
- IPs were barely tested or adopted by a few countries in Africa
- IPs were introduced for testing in SIMLESA by ACIAR (does it make an impact?)
- This approach unlike farmer participatory research gives recognition to the enabling role played by institutions, multi-stakeholder engagement & policies towards innovation…
- Developed the “Operation field guide” to harmonise approach, workshop (from 15 countries) & prepare the guide, training of trainers (10 countries) to streamline the thinking and interpretation & application of IPs for Africa

A lot of research had been conducted but little grassroots adoption achieved. IPs are about getting research off the bookshelf and to the farmer’s level. The way technologies are received by farmers is important but government systems were not yet sensitised to this reality. The extension system is government only so need to bring other sectors on board. George spent hours and hours debating with John Dixon. He is driven by passion to address poor HH’s farming systems and wanted to build a system that would get all stakeholders involved, from farmers to politicians. The key thing is - is the farmer better off? African governments are highly centralised.

They focused on national and regional training of trainers. Advanced training was offered the Agricultural Research Council (ARC).

The purpose of the KALRO IP Guidebook was to harmonise approaches across Africa so a workshop was held with participants from 15 countries to involve everybody, streamline thinking and develop a unified approach to make the IP method easier to replicate. The guidebook arose out of a process - it is important that everyone buys into the idea. IPs worked well in the first 5 countries, so the aim was to have IPs adopted in a further 10 countries.

John Dixon and George focused on whole of the continent adopting, which meant one country had to invite the others via the NARs. Kenya took the lead. Which country takes the lead is important to achieving buy-in: a process issue. Every country and regional research institution has a different approach but they were after the main thrust. Felister chaired the workshop.

The guidebook was aimed at local government, the people in a position to influence, so the language had to be kept very simple. It was printed and disseminated in each country. They used an example of organising an African funeral as the analogue for IPs because they are very elaborate. This is to communicate the principle of multiple actors with different roles acting in concert: using a committee to share one agenda. By focusing on addressing the inefficiency of a value chain, the IP narrows its agenda and the range of stakeholders. Failures are due to a lack of incentives and incentives are the basis of sustainability. Banks are looking for customers, processers are looking for increased and reliable product. About achieving win-wins. Requires highly skilled facilitators with a PR focus. Constraints are

similar. Identify actors along the value chain. The guidebook covers challenges and how to address them.

IPs involve the private sector, local leaders, cooperatives and other relevant sectors. There are 58 IPs in east and southern Africa. They started with increasing production so focused on inputs, markets (aggregation through collection centres) and credit. IPs monitor functionality. Achieved HYV adoption via trials and seed production. Developed a feeling of technology ownership among stakeholders. Diverse skills and finance. Success achieved by early involvement of private and public actors. It was initially difficult: it was difficult to get attendance and it took a lot of funding initially to obtain buy-in. Scientists have poor sharing and communication skills.

One crisis entry point was a banana disease that left soil uncovered and caused soil erosion. Six IPs in sub-counties introduced a new variety and local nurseries switched to it. The response was enthusiastic with farmer to farmer outreach to reduce the regional disease burden. An impact study using Likert scale was used to evidence success. There needs to be a rapid tangible benefit which dictates the entry point. Technology push does not work. Each partner has the opportunity to engage donors and influence the policy agenda

Experiences of IPs in Kenya

- Different levels of IPs
- Different phases: initiation phase, mobilisation, stakeholders, determine agenda, narrow agenda, stakeholders relevant
- Need a compelling agenda (incentive): a lot of failure if no incentive → incentives ensures sustainability: relevant actors, buy-in & ownership of the vision, facilitator with soft skills, attitude, team player, mobiliser, PR, communicator
- Result in networking of actors within IP
- Value-chain actors identified
- Interventions by IPs to address the constraints: low productivity, poor access to inputs, market access, poor access to financial resources
- Envisioning of IPs, exchange visits etc
- Distributed seeds (seed companies), forage improvement as pathway to livelihood diversification
- Lessons learned: partners participation in the project implementation nurtured a feeling of technology ownership; several technologies could simultaneously be addressed to ease coordination & implementation challenges; for effective facilitation of multi-partner platforms diverse skills, funds & other resources;
- Drivers of success: involved range of stakeholders, value-chain, targeted a felt need & introduced at a critical time
- Challenges: different partners had diverse interests & objectives; demanding initially of time & resources; scientists have limited skills to establish & manage credible IPs (at different levels)
- Case study of banana disease in Kenya: showed changes in perceptions about quantity & quality (impact) increased HH income, job creation & productivity

Conclusion

- Can enhance partnership & increase utilisation of innovation/technologies & is beneficial to all (win-win)
- Increase productivity
- Can be used for upscaling
- Dynamic new networks

Underlying issues:

- Diverse interests vs bigger picture
- Prior identification of clear-cut blockages & opportunities that present incentives as solution

- Have rules that are acceptable & enforceable
- Ensure learning and feedback to relevant actors
- Ensure continuous transition from potential to real benefits.
- Knowledge generation & management
- Trust & transparency
- Incentives for change
- Managing expectations
- Facilitation

SE Asia – Initiating IPs in Laos (Tamara)

The project dealt with a smaller, more targeted area. The learnings presented here were derived from a workshop held with project participants. Project: crop-livestock systems platform for capacity building, testing practices, commercialisation and community learning (CLSP) followed on from the South Lao project.

- CLSP Objectives: refine integrated crop-livestock technologies, selected systems approaches to crop-livestock integration; create institutional capacity for establishing local platforms for commercialisation & co-learning
- Challenge for working together across (or even between) agencies

Build capacity in systems thinking

- Workshops; different tools for understanding systems; interact with range of stakeholders
- The south has poorer, sandy soils. Irrigation is used for 12% of paddy. The project used a crop-livestock integration platform.
- A 2 year project, It was a 6 month project built on a larger project that went for 5 and a half years on AUD$5,500,000, that received a 12 month extension after 5 months of work had been completed which distorted the method. It delivered on Objective 3 of the larger project: build institutional capacity via IPs. Was to conduct national, regional and district training in IPs.
- Provincial level IP (dry direct seeding, then district level IP implementation and value chain)
- Promote and support dry direct seeding:
    - ID & prioritise challenges
    - Develop & implement work plan to address these

Lao has comparatively low population density. Rapid economic growth has occurred in the last decade which has halved poverty. Lao joined the WTO in 2013 and the ASEAN economic community in 2015. There is a double ‘cloudy’ system: the government and the Communist Party so it takes a while to figure out who holds power.

The coffee industry is well organised with farmers organised into cooperatives. The institutional system was characterised by poor interdisciplinarity. Asking crop and livestock extension officers to sit together initially caused confusion. Tamara thought it would be easier than it turned out to be. Used the ILRI IP model to develop integrative systems thinking, helping the extensionists to look at the system from different perspectives.

Tamara focused on provincial level IP training with extension officers who worked down to the district level using DSR as the focal technology because it was already taking off. They only got to the initiation stage - a couple of IP meetings. The problems to address were access to DSR machinery and information. It was difficult to get the right people and to involve the private sector as there is ingrained distrust between government, NGOs and private sector players. Worked on the principle that there is value in two-way information flows.

The district agriculture and forestry officers were reluctant to step outside their mandate without higher level approval and authorisation from the provincial level. The system has

both district and provincial Governors. Some political systems require top down approval but we were told we should start with a bottom up approach.

An onion production IP was established to deal with the problem of cheap Thai imports had an active and experienced chairperson with the power to make things happen.

Lessons:

- Farmers work in an integrated manner - is inherent
- There is still a lot of confusion about IPs
- It requires more investment to clear the confusion
- Mistake to start at the bottom in a top down political-administrative, single party system
- Awareness at higher levels is required, need alignment at higher levels/scales
- A new policy now exists where by the 4 commodity sectors are integrated at the provincial level but has not descended to the district level as yet
- Systematic coordination and cooperation is needed to mandate action - linking mechanisms are necessary
- Need simple tools to understand local systems - such as value chain analysis
- Farmer groups are often project-centric and temporary and farmers have had bad experiences with cooperatives
- But there is recognition that times are changing and that systems will have to change with them
    - Hard to engage with private sector (overcoming mistrust; unless good local relationships)
    - Value in two-way flows of information

Other observations:

- Promote improved cattle production & marketing (& onion production)
    - Value chain analysis, stakeholder ID, ID challenges, develop workplan & partners
    - Active & experiences chairperson(vice-governor) made this group work well
    - Clear objective
    - Good range of stakeholders engaged
    - Good potential links to other initiatives
- Feedback on integrated systems approaches:
    - Taking an integrated approach is the way that farmers work
- Feedback on IPs: how to encourage other stakeholders to have more participation & responsibility; build understanding, more investment (time & money); needs to be adaptable to different levels of resources/locations
- Institutionalise IP approaches: create awareness, secure political will (align with higher levels), systematically cooperate & coordinate between institutions, recognise time scales for impact, build necessary and capacity
- Working with external stakeholders: need to know mandates, communicate clearly, ID benefits for each stakeholder, build trust, good coordination & regular contact, get buy-in from higher levels, communicate clearly (ask open ended questions)
- Tools for systems analysis: use simple tools, people to work together, allow active participation to create shared understanding
- Project conclusions: multi-stakeholder & systems were not easy, but were necessary; can help inform research agenda flow of info. Need to build on existing networks & recognise that every context is unique
- Questions:
    - What are the expected time frame for effective operation?
    - How to engage with private sectors?
    - How to use top-down & bottom-up?
    - Benefits of starting with existing group?
    - Important is the operating environment?
    - Groups sustainable?

- Are there places IP cannot work?

Africa & SE Asia IP panel discussion (40 mins discussion)

The authorising mandate in Bangladesh is a new extension policy which will utilise IPs. RDRS is an NGO and as such is mostly project based.

Government policy in Kenya changed to dictate that 30% of research institution resources will be spend on dissemination. This mandate is written into the national strategic plan. Extension is important for identification of problems. In Africa, we started with researchers taking the lead and handed over to extensionists. Who can initiate a problem based IP depends on whether the extension service is demand driven.

In BARI's on-farm research arm, there is no concept of IPs: we work through technology demonstrations. It is DAE that works with farmer groups.

The Kenya policy is that extension will be provided at the county level and the mandate is to catalyse technology uptake via IPs. Every country has at least one priority value chain. This system is now 5 years old.

BARI needs such as system in Bangladesh for IPs to work. We need higher level permission to attend IP meetings

In West Bengal, agricultural extension is based on incentives - the policy makers decide the crop, variety and machinery to be used. The mindset of the extension officer is that he cannot cross or modify the mandate but the mandate can contradict what farmers actually need. The targets are based on yield and increased production. When farmers refuse to cooperate, the policy is not enforced. State policy was changed to promote the multi-crop planter with a 50% subsidy. However, farmers are confused as the subsidy for rotavators was also retained. It is not possible to exclude the extension officer.

In SIMLESA this problem was addressed by the decision to invite high level government officials to come and see via the umbrella body for east and west Africa which had a mandate to convene a high level meeting. Seeing is believing but policy briefs were also used and this is how IPs were incorporated into national agricultural strategies. I am very surprised to hear of your situation.

The need to influence policy is very important and this is happening in Dhaka now.

Cambodia has a fantastic policy written by USAID but is simply not implemented as there is not the will to change at all the levels - from national to extension officers. It needs to be driven upwards from the famer level and this is a big challenge.

Policy is very important. Most policy is formulated at the top but policy needs to be made at the bottom for IPs to work because buy-in at the bottom is required. IPs can facilitate such buy-in and eases the process of moving policy up the levels. Rwanda eventually conceded that IPs are the solution.

Q. You can only disseminate what is profitable so how do African IPs involve the private sector?

A. Processing opportunities such as crisps. KALRO was asked produce a suitable potato variety for processing so contracted farmers to trial them and then to produce them. Private sector actors can have an interest in specific commodity varieties and the IP's role is provide information and feedback regarding the required commodity and production levels to support the processor. A crop insurance company and bank later joined to facilitate adoption of the potato variety. It is about agri-business formation. 'Proven' technologies should be proven for profitable marketing. IPs are meant to benefit the whole system.

African IPs do not necessarily require funding, it depends on their maturity. Successful IPs can help counties to replicate the model further. In Lao it costs up to US$10,000/year. If it is facilitated by government, participants expect to be paid to attend. In West Bengal extension is a state government responsibility via line departments and ATMA.

In the African experience, pluralistic methodologies may not be able scale very much as you need policy to scale. Successful pockets can be used for getting Ministers to see for themselves which is one of the strategies that KALRO used. In terms of evidence, impact studies are important to demonstrate the livelihoods, farming systems and HH incomes are actually benefiting. By field testing everything, champions emerge, with a further 2-3 years to reach the policy level.

When we started SIMLESA, all government participants expected per diems but as the IPs matured, per diems were no longer required as they began to win grants and establish micro-finance mechanism that made the IPs financially self-sustaining and there was no need for government staff to attend. Initially the IPs met every one or two weeks and only for the sake of potential benefits. You need a quick benefit such as HYV whereas CA takes time. IP meetings are mostly held under trees like FFSs. It needs to be informal or people will not speak and women will not attend (as have their children in tow).

Nepal (Surya, Dipendra & Dinesh)

- Issues/challenges of Nepalese agriculture sector
- Development and transfer model in Nepal: Generation, verification and dissemination
- 5 node IPs in each of Sunsari & Dhanusha, plus 2 District level (so 12 in total). Plus 2 outside project
- Topics covered:
    - CA, crop management, irrigation, agrovet, agro-advisory services. Membership: public, private & community actors
    - Role of entrepreneurs
- Entry points:
    - Problems of farmers
    - Stakeholders
    - Problem prioritisation: resource allocation/contribution for solving problems
- What worked:
    - Better participation & coordination of research-extension-private sectors: problem solving
    - Realise need of participation of stakeholders in local problems
    - ZT service business development
    - IP helped arrange necessary ag inputs & agro-advisory services on time
    - Subsidy support (seeds, machines) of DADO was effectively distributed
    - Encouraged farmer to form/organise groups for accessing subsidy support
- What did not work:
    - Limited participation, commitment & actions from stakeholders (public support are limited to few nodes/IPs, private sectors effective only on small scale)
    - Formalisation/institutionalisation of IP is yet to be achieved (→ needs national support from policy)
    - Limited input supplies in local nodes (seed, herbicide, fertiliser & ZT machines and repair & maintenance)
    - Out-scaling of CASI without subsidy support
- Node vs district:
    - District: district level public service providers, private sector and community institutions/farmers
    - Node level: local public service providers, private sector, community institutions/farmers
- Participants: 8 females and 118 males in Dhanusha, 46 & 125 males in Sunsari (too many people at meetings??)
- Utility of IPs in GESI: better linkages women farmers/groups to access technical knowledge & input services + capacity building & empowerment
- Institutional implications: formal vs informal; validity; sustainability; roles; focus on CASI or overall agricultural issues?

- Policy implications: IP as an entry point to understand local issues/problems; integrate resources. Restructure in Nepal: IPs could be valuable to assist.
    - IP can provide valuable message for the research & development
    - Collective/collaborative interactions among stakeholders to help small & marginal farmers to improve capacity and problem solving.
- Learnings:
    - Sensitisation, capacity building, coordination exchange of ideas/planning & committed actions of stakeholders
    - Small-marginal farmers need input & services but seek subsidies, private sector providers hold resource but profit seeking, public service providers have both responsibilities & resources but limited
    - Ownership should rest with farmers/entrepreneurs for sustainability (public take initiation, but hand-over)
- Challenges:
    - Prioritising the farmer overarching problems, matching it with the institutional objectives & available resources
    - Exploring relevant stakeholders & linking farmers with them including the local government
    - Sensitising capacity building and achieving an effective participation of IP stakeholders for solving local problems
    - Formalisation/institutional & mainstreaming of IPs (enabling local ownership of IP) to functionalise it is a sustainable way.
- Opportunities
    - Engage stakeholders in ID & priorities issues/problems, accelerate innovation, dissemination & adoption
    - IP serve as a fast-track to explore (problems & opportunities) exchange share ideas & resources to address ag
    - Leadership
- Sustain IP in future?
    - Develop capacity of IP & stakeholders (raise awareness, regular meeting, training, planning & coordination
    - Develop win-win business/IP model for all involved stakeholders in IP
    - Formalise/institutionalise IP & mainstream it at policy level
    - Develop linkages with local governments including other possible institutions

Bangladesh (Shakhawat & Rashadul)

- 5 nodes in Rajsahi; all functioning well
- Topics: limited availability of quality seeds, DTW electricity supply, pest management, micro-credit, deep tube well servicing, farmers access to irrigation water, service provider cost
- Machinery & contract services: 2 & 4 wheel tractors, DTW & thresher are available to local farmers on a custom hire basis. Strip tillage, bed planter, rice transplanter & LLL are available within all SRFSI farmer groups in all nodes. Presence of well-trained service providers.
    - Thresher (service provider can move their thresher easily and cover large area. Spare parts available in local market), reaper, 2WT
    - ZT/ST/bed planter: single pass, but farmers reluctant to use, spare parts not always available
    - Marketing: well developed system due to presence of buyers. Farmers get fair price. Farmers get low price for fruits and vegetables to city markets due to post-harvest losses.
- Node vs District: Coordination meeting, monthly meeting
- Utility for women & other groups:

    - Women & disadvantaged are empowered by learning good ag practices; encouraged in ag through IP. Women coming forward because males involved in off-farm activities, earning extra money
- Sustain IP in the future
    - Empower farmer groups
    - Need fund support
- Challenges: understand concept was difficult; links between stakeholders; mobilise farmers; coordinate
- Learnings: Need quick benefits to get underway. (many more on slides)
- Opportunities:
- Rangpur: 5 nodes; ID stakeholders; conducted stakeholder discussion & IP formation (in-depth problem analysis)
    - 2 Upazilla IP (background activities completed & will be started next month)
    - 1 District level planned only
- All IPs are driven by the community and taking ownership (ST, BP, Power tiller, sprayer, digital scale + rice transplanter & reaper) along with Agriculture information centre and ICT service centre.
- Government & private sector engagement in service model through IP (Ag community clinic & Information Centre)
- Business model for market access functions of IP (market opportunity groups, farmer community through Market (private company, individual trainers) with training support through an IP centre.
- Major achievement of IPs: raise awareness of CASI, seeds, pesticides etc, but also health & nutrition services, linking with NGO
- IT centre: crop management information plus others
- Advocacy meeting for ensuring local level agriculture services. > 100 farmers present at each meeting.
- Awareness raising sessions for youth/students to become familiar with ag issues
- Built a community room and helped with volunteering to fix a bridge
- Women entrepreneur producing vermi compost and marketing opportunities
- Challenges: difficult to build linkages between different actors for better access to technical services
    - Mobilise the community to work for IP to fulfil their requirement with min resources
    - Performance of IP seems to improve in time – not quick win
    - Quality facilitation.

West Bengal (KK Das) IP: how effective they are?

- Input supplies: no information about marketing. Output marketing: Price of product and competitive product and key market agents and marketing channel not available.
- 5 Nodes in Malda and 5 Nodes in Coochbehar. Established in 2015. Operating at Node and District levels.
- Intervening issues: Non availability of sufficient machines (ZT & non-ZT), small scale machines, problems with insecticides/herbicides, insufficient machinery driver training, information/communications/weak Linkages between stakeholders in supply chain, independent government schemes, lack of business attitude from farmer clubs and NGOs
- Transformation from marginalised land & resources, through intensification of cropping systems, mechanisation, aggregation of interested farmers to innovative business models
- Working model: capacity building, material support, service provider, single-window service using range of support agencies (DOA, NABARD & private players)
- Development of farmer level organisation.
- Coochbehar: 21 farmer clubs (neighbouring nodes joining), 670 ha, 1250 farmers. Malda: 7 clubs, 966 ha with 3307 farmers.

- Model: nodal service provider
- Satmile service club (single-window) custom hiring, machinery dealership, post production unit, training & monitoring, input dealers
- Women in IP (particularly through rice transplanter. New service centre forming seed raising for transplanter
- Weakness:
    - Weak coordination among IP members
    - Insufficient in dynamic farmers clubs that can take the lead role
    - Many farmers clubs are yet to join the movement (Farmer clubs are there, but UBKV could not reach)
    - Inertia in holding meetings (only 60% people participate)
    - Could not address players from the output markets
- Route for success: chain of different farmer clubs looking for mutual beneficial roles

Bihar (Ram)

- 5 Nodes (one in each block)
- Constraints (built on from FGDs): labour scarcity during the season, lack of quality inputs and their availability, costly inputs, lack of drying and storage facilities for maize, remunerative prices for their produce + others
- Aranayak Producer Company. All members are women; Now getting good price, bonus, accurate weighing, cashless transactions, provide warehouse facility, farmer-to-farmer communication
- Impact on vendors: changed their practices
- Observation that PG members have developed a “we” feeling
- DEHAAT model (“village”): DEHAAT model at node level. Get inputs and sell products (end to end approach).
    - Availability of quality inputs, provide machines, improved seed, capacity building, voice messages, credit, soil testing. Combination of physical and virtual centre.
    - Changing institutional arrangements (habit, interaction, enabling environment etc)
- Communication: targeting young people to help with use of mobile phones

Note: there was no presentation from Madhubani, Bihar, so we are a little uncertain about what is going on there.

General discussion + highlights of the day

Highlights

- Dehaat model
- Involve youth/students (with mobile phones)
- Farmer clubs
- IP how it can be replicated
- IP implemented in Kenya
- Action taken by KARLO in IP
- Identification of different models of IP to improve the capacity
- Information of impact of WB presentation
- Variety how people have interpreted & implemented
- Sustaining IP in doing business
- Success of IP examples
- Variety & scale
- Satish Club (scoop) Coochbehar
- Subsidy on small-scale machinery
- Seed producing model of Malda
- Crop based IP of Kenya

- Learning about farmer clubs
- Presentation & panel session

Topics that still need to be discussed (for following day)

- How can we scale out the Dehaat model
- Famer club
- Sustainability of IP
- How to capture success & failure of methodology
- Learn more from RDRS on action taken in IP
- How to make change in policy level for sustainability of IP
- Sustainable business models for SPs
- How to draw the variety in different phases of systems
- How to develop business for the sustaining of IPs
- Refinement of IPs how it can be done
- Condition for quick information & success of IP
- How to replicate scoop club in Nepal
- How to formalise IP in national agricultural systems
- Critical factor for the success of crop based IP eg from Kenya
- Discussion in input & output model
- How to capture the stories for policy brief and papers

Discussion points synthesised into different groups (from above list):

1. How to transform success to other areas (Dehaat, farmer club)
2. How to involve input & output models
3. How to build sustainability
4. How to formalise IP in national systems
5. How to capture success & failures and stories for policy and papers

Day 2: Discussions

Field observations (Jay) Innovation Platforms: What does success look like?

- Success:
    - There is no such thing as an unsuccessful IP group
    - IP groups are at different stages of development and maturity
    - IP groups engagement with partners varies considerably
    - Takes time to build momentum for IPs to grow, build partners & mature Critical success factors
- Critical success factors
    - Strong and respected leadership within the group
    - Focused activities that address the needs, interests and opportunities
    - Value chain market approaches
    - An enterprising spirit within the group, with problem solving skills
    - Engagement and active participation by a wide range of stakeholders
- Many IP groups have significant social capital
    - Groups are engaged, motivated and participatory driven
    - Members are comfortable to work together within their communities
    - Learning from one another is so important
    - Being empowered allows participants to take control of their own destiny
- Empowerment of women
    - Women are empowered, willingness to discuss and ‘open up’
    - Extensive labour shortages and mechanisation technologies are helping to create new roles and opportunities for women
    - Traditional gender roles and expectations within the family unit and community are still present, but generational change is taking place

    - Shared decision making by both partners in terms of farming operations, business and household financial planning is evident
- SRFSI influences
    - The IP process: is it farmer needs driven or SRFSI drive?
    - Farmers recognise the benefits of CA technologies, significant expectations
    - Proving and demonstrating the technology needs to be done right
    - Can't afford any slip-ups, but at the same time learn from mistakes
    - Farmers require "quality learning experiences"
    - Train of the trainer – might need a modified approach
    - Challenges in terms of accessing machinery, tractors, high demand foe equipment peak periods
    - The project needs to build on the achievements of ZT CASI technologies and the provision of equipment – it is demonstrating to the farmers the opportunity, giving them new insights and setting challenges
    - Farmers new to CASI technologies need time to observe and compare
    - The need to integrate practices and support farmers through guided 'evidence based decision making' is essential
- Observing, reflecting, adapting: part of the adoption process
    - Farmers need the opportunity to discuss and reflect on group activities
    - There needs to be plenty of facilitated discussion as part of the 'innovation melting pot.
    - Setting goals over 5-10 year time frame is important and a sign of group maturity (traditional farmers only surviving from year to year)
- How will we identify and demonstrate success?
    - Combination of many factors
    - How to demonstrate outcome
    - Measuring impact and benefits are so important!
    - What is it that we are aiming to achieve, target and change?
    - What are the key measurable indicators?
    - How is this being measured, analysed and interpreted and by who?
    - Capacity? Social capital? Productivity? Profitability? Market access? Entrepreneurship?
    - Creation innovation enabling environments? Gender equity? Value chains? Market chains?
- On-farm monitoring and benchmarking
    - Evaluate different technologies
    - Consider developing simple crop monitoring and benchmarking systems
    - Integration BMP, CASI specific technologies, market linkages – demonstrating the comparative advantages
    - Simple financial analysis and comparative analysis between participants to enhance business management skills
    - Harnessing the power of group discussion and the drive for maximising profitable and sustainable production
- Business case modelling
    - Business plan – ABC of how to set up enterprises, financial, planning etc to access finance
    - Successful groups are enterprising, often having links to savings and credit group activities
    - A need to develop business models that allow them to become self-sustaining in terms of providing machinery hire/contracting services, retailing of pesticides, fertilisers or agreements with preferred suppliers
    - An opportunity to develop 'business case models' for such activities, to assist in groups gaining access to finance.
- Entrepreneurial spirit evident, overcoming many barriers
    - Improved and 'direct line' access to the market place
    - Retailing or group discount to high quality inputs (pesticides, fertilisers)

    - Capacity within some groups was extremely high
    - Creating greater bargaining power in the market place for produce
    - Need to encourage and support this spirit
- Building partnerships with stakeholders
    - The need to provide a value proposition; what are the benefits of being associated with the IP? What does the IP activity 'bring to the table'?
    - Important for the IP to identify which stakeholders should be targeted, to help establish relationships for engagement
    - This takes time, and the success of such relationships will be influenced by the capacity and prevalence of such partners within communities
    - Hard work, persistence & importantly to find the right sort of people
    - Increased profitable and better quality production, consistency in supply will provide farmers with a greater collective bargaining position
    - As IP groups mature, partners will want to be associated with the groups
    - Partners will benefit also through increased demand for services, increased demand for their high quality produce
- The 'one size fits all' recipe is largely irrelevant to building IP groups
    - Each specific community and group is unique
    - There is the need to follow the principles of IP group formation and development carefully, but with a degree of flexibility
    - The strengths and weaknesses of the group, the participants, community and partners needs to be identified and considered

Questions:

- Success factors: IPs are dynamic, vision of success? Capacity building
- M&E, often late – linked to government system. Need benchmarking. On-farm-level too.
- Capacity building for facilitating and mentoring
- Innovation platform, always innovating and become self-sustaining

What are the learnings to date? Plenary

Resourcing is needed for IPs to continue in their respective (jurisdictionally different) pathways and a way found to ensure their post SRFSI sustainability. The Aranyak IP model is successful but it relied on substantial resourcing from Jeevika - such resources cannot be assumed to be available.

The success factors that ensure sustainability are:

1. They need to generate income
2. They need to solve real problems
3. They need skilled facilitators

Ultimately we need to change roles from facilitating IPs and retreat to technical backstopping. This will require more community participation and capacity building. IP members require sufficient trained to be able to generate income. Once trained, they can act as master trainers which is good for farmer to farmer communication. We need to develop key local farmers as trainers. Create master trainers at the node level who are strongly linked to the research institutes as well as the public and private sectors.

There are many business models, however it is a precondition that CASI machinery be available to IPs. Machinery needs constant modification as the system evolves. When UBKV started ZT wheat in 2012, we covered thousands of hectares. But when the combine harvester came into the system, the retained stubble caused clogging and we needed to modify the ZT machines. Consequently, it will remain the duty of IP members to keep in touch with research institutes to be able to access machinery troubleshooting.

It is important to engage all stakeholders in exploring and addressing the underlying issues and to understand what motivates their participation.

If you develop entrepreneurship, local service provides under an IP umbrella will continue and the IP will run automatically. An efficient value chain is one where all receive a tangible benefit, and this is achieved via very strong partnerships.

It is important not to overlook or neglect social responsibility: an IP should contribute to the community as a whole otherwise it can be seen as an exclusive club. The IP disaster and emergency responses by the Bangladeshi IPs are a good way to ensure this.

From a SRFSI point of view, technologies need to be prioritised and 100% proof that they work is very important. Failures are catastrophic. Having 2 to 3 years of on-farm trials gives the time to undertake prioritisation.

Access to technology in Nepal is very important. Farmers can only receive fertiliser for rice, not all crops. They need the complete package. IFFCO has given a dealership to the Aranyak IP, In West Bengal farmers obtain fertiliser from the DOA. Nepal needs to find an equivalent, as control over inputs cannot be attained via agrovets.

One technology can contribute to another. In the CA system you cannot completely control weeds whereas puddling for rice offers good management of weed. But this is not accepted in CA so herbicide is needed. Only two nodes in West Bengal can use DSR. CIMMYT recommended a suitable herbicide but it has to be purchased from Australia as it is unavailable in India. This makes the mechanical rice transplanter the best option and it has been successfully tested over a large area. DSR is not useful and unpuddled transplanted rice the solution.

SRFSI is also not testing some crops, for e.g. jute, which important across the region. Farmers are asking us about jute and potato (there has been a large increase in potato production in the last 5 to 6 years) as well as vegetables and these should be included in our recommendations. Women's FGs are demanding a homestead garden crop they can value so they can increase their incomes. IP sustainability will be difficult if we only focus on foodgrains. In Malda, mango is a major crop. But nothing is known about mango in CIMMYT! We need to add value-added crops to reach and strengthen women FGs and this could be one of the IP objectives. One option is to view it as a cereal based system but include value added crops.

In Nepal there is low capacity to invest and few stakeholders who in any case are resource constrained. Then, because IPs are not addressing problems, farmers are not interested. Addressing immediate problems is necessary. This is a big problem for us. The PM's Agricultural Modernisation Project has many resources but does not operate in all nodes. The trial farmers need harvesters, inputs - very basic things. Forget SRFSI - we need to improve agricultural productivity before can engage with CASI. The technology protocol will not work in Nepal.

This makes for a big and tough agenda. It was decided to make a list of questions to ask the SRFSI Annual Review & Planning Meeting. ACIAR expects comparative empirical data - a plan for indicators - a simple scoring system that is related to the degree of subsistence in the farming system. It will not do to just go on and on about constraints. Sustainability = profitability = automatic adoption.

There must be credit and funds to support machinery repair and maintenance. Financial inclusion/access to credit is very important. We need to include banks and other financial institutions.