

RISP in action

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What's inside

Karnataka crop insurance pilot	1
Fieldbytes	3
Institutional development	6

Inside view	8
Meet and greet	15
Recently concluded events	17

Knowledge products	19
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FROM THE RURAL INSURANCE SERVICES PROGRAMME

2014 has been an exciting year and has seen the RISP team passionately pursue several interventions like the mango marketing initiative, development of the switching trigger crop insurance product in Karnataka, and the development of new methodologies for farmer risk profiling and monitoring protocols for in-season, pre-harvest and end-of-season loss assessment.

Our forays in dealing with agricultural risks using integrated approaches are slowly gaining ground and we see a strong expression of interest in future co-operation from a diverse group of external stakeholders.

The current edition of *RISP in action* documents and attempts to share some of these experiences and lessons, handpicked by the team for your reading pleasure.

Aniruddha Shanbhag
Senior Advisor

1 Karnataka crop insurance pilot: a business case for demand-oriented crop insurance solutions

In line with the objectives shared by the Karnataka State Department of Agriculture (KSDA) to enhance the product design of existing weather based crop insurance schemes for horticultural crops in Karnataka, an expert group was constituted post a stakeholder roundtable led by the commissioner of Karnataka State Department of Agriculture (KSDA), Shri Subodh Yadav. The expert group comprised of participants from the Agriculture Insurance Company of India (AICI), relevant government departments and organizations like the Department of Horticulture, local agricultural universities and the crop insurance team of the GIZ Rural Insurance Services Programme.

Initial meetings of the expert group focused on the evaluation of the design process across existing insurance solutions and the development of a new framework for demand aggregation, data collection and evaluation. The GIZ-RISP team developed the operational (field work) plan which included identification of relevant crops and pilot locations, farmer engagement approach, awareness and literacy initiatives, historical weather, yield data collection, farmer demand aggregation and finally feedback collection from farmers. As a part of the implementation strategy a clear three step process was identified which included the following:

Emphasis by farmers on indemnity based covers indicated their uneasiness with products relying on weather indices.

Firstly, setting appropriate expectations across beneficiary farmers about framework conditions and expected benefits. Secondly, closely engaging with lead farmers to identify pragmatic, scalable, and implementable solutions. Finally, aligning the expert group to the mitigation needs of the local communities as part of the benefits offered by the insurance products.

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After appraising the expert committee about the ground realities and farmers' inputs, it was decided to form panels of progressive farmers to guide the product development process. On the basis of farmer feedback analysed during the expert group meetings, list of insurable perils, coverage periods etc. was developed for different crops. Progressive farmers were invited to discussions which focussed around their needs. Farmers were sensitized to the constraints existing in crop insurance through a real-time, consultative exercise using a cloud based solution. Emphasis by farmers on indemnity based covers indicated their uneasiness with products relying on weather indices. Based upon several rounds of consultative discussions, demand-driven products were finalized for grape and mango in four locations and design specifications submitted to KSDA and the Department of Horticulture.

Following the receipt of approvals, the two products were notified across 2 locations for pilot testing while for the remaining (two) an as-if simulation exercise was undertaken in the first week of January 2015. The pre-enrolment process comprised of producer awareness building, marketing and finally risk profiling after the enrolment carried out in a short span of time and in sync with the crop cycle. A key success factor of this initiative was the support realized from

local agricultural and horticultural institutions and the insurance underwriter, Agriculture Insurance Company of India (AICI). A call centre was established at the regional premises of AICI to assist farmers in registering complaints, reporting losses and addressing product related clarifications prior to enrolment within the insurance scheme.

To arrive at a common understanding, beneficiaries needed to fully understand the benefits of the crop insurance solutions. Acknowledging this viewpoint, eligible farmers underwent a detailed training and assessment exercise prior to enrolment in the scheme in order to familiarize themselves with the crop insurance products.

Some of the highlights of this pilot campaign were:

- Voluntary enrolment by farmers in Nandi and Chintamani hobli, a first for these two regions
- Indemnity-based protection against crop losses experienced on account of pests and disease infestations
- Demand-driven composite products (index and indemnity based) on offer
- Risk-profiling of farmers to create homogenous clusters based on common

farming practices and conditions.

- Geo-tagging and geo-fencing of farms to reduce risks of moral hazard and adverse selection

Some of the preliminary empirical learnings are as follows:

- Need for holistic product design, prioritization of perils with focus on low frequency high intensity events which usually result in high crop losses
- Duration of the risk period for horticultural products to be amended to yearly, with identification of different monthly covers. Products to also include protection against unseasonal climatic incidents and delays in fruit formation and resultant yield shortfalls at the time of harvests.
- Timely notification and rollout of products so that farmers have adequate time for enrolment
- Implementation of training initiatives including insurance awareness and education programs
- Support capacity development needs of stakeholders to create a pool of trained experts for undertaking field level risk profiling, monitoring and loss assessment.

2.1

So near and yet so far – Farmers' take on certified agricultural production

–Pratul Ahuja

"If we won't let our children eat any food having chemicals, we should do the same with our trees"

"These trees were planted during our childhood and are like our children." The mango farmers of Kaprada in South Gujarat share a strong emotional bond with their trees. Sadly, poverty in this remote tribal region coupled with the inability to buy agricultural inputs to enhance production is a major stumbling block. **"We are hardly able to earn more than Rs. 10-15,000 in a year... where will we get the money to spray medicines?"** One of the farmers

asks dejectedly. Another farmer in the group is more sanguine, **"We don't do anything to take care of our trees ...it is God who maintains them...in fact, we don't even know how many trees we have!"**

Mangoes in this region are grown in perhaps one of the most natural conditions but the temptation to see if these farmers could benefit from certification is short-lived. Most farmers here are

cultivating on encroached forest land for which they do not have a legal title ('saatbarah'). As a result, there is obvious resistance towards getting details recorded on paper, lest it be used as evidence against them. After a few hours of intense persuasion, the farmers agree to state in writing that they have not used any chemicals in their farms. Question is will this information suffice as part of a transparent certification methodology?

Mandvi in Kutch district

Mandvi in Kutch district is different. Here, farmers follow the No Pesticide Management or NPM protocol. This means that while they can use fertilisers containing Nitrogen, Phosphorus and Potassium (NPK), the use of chemical pesticides isn't permitted. Also, as a part of this protocol, testing for pesticide residue needs to be undertaken to ensure that the produce can be

certified as NPM. This is proving to be a major challenge.

Last year, some of the Kutchi farmers inadvertently used chemical herbicides and weedicides on their farms as a result of mis-selling by a few chemical companies **"We sold our mangoes in the market as organic since we thought we had not used any chemicals"** said one

of the farmers. At that time, there was very little awareness and understanding of the different certification protocols and how they had to be administered in the field. It remains to be seen if the mango produce from this region can meet the requirements of the NPM certification this year. That is something time and a pesticide residue test can tell.

Dhari in Amreli district

The NPM protocol is also being followed by the mango farmers of Dhari in Amreli district. However, this initiative is going a step further by seeking the IndGAP certification. In addition to the requirements of the NPM protocol, IndGAP takes into account other aspects like farm labour safety, hygiene & sanitation, animal health, calibration of farm machinery and

proper record of its purchase and maintenance. As per the IndGAP protocol, full documentation of these requirements is important to have evidence that due process and procedures set under the protocol have been followed. However, the concept of IndGAP is relatively new to the Indian market; it is difficult to expect farmers to be able to understand and meet all of its requirements

in the first year itself. But strides are being made with NPM and the farmers have been fully supportive. As Usman Mogul, a progressive farmer of Dhari states - **"If we won't let our children eat any food having chemicals, we should do the same with our trees"**...and Usman is not alone. With NPM and IndGAP activities gathering pace in this area, hopes of a new dawn seem less distant.



2.2

Fighting for survival- a story of Gujarat's Kesar mango orchards

What has changed significantly this season is decrease in the farmers' ability to cope with the economic impact of these repeated occurrences, and the reducing household income due to crop failure.



Farmers across the mango growing regions of Amreli and Junagadh in Gujarat are a worried lot. For several seasons now, exposure to unfavourable weather has badly affected the production of their (mango) crop. While the year 2009 witnessed spells of continuous rain and hailstorms in Amreli, mango production in Talala, Junagadh - which accounts for almost 60 per cent of Gujarat's Kesar mango production was severely affected due to prolonged winter conditions in 2012.

The year 2014 also took a heavy toll on the mango production due to the onset of unseasonal heavy rains in the months of February and March, when fruit formation was at its critical stage.

Sadly, 2015 has been no different. Mango needs a dry spell of weather post October-November for ideal flowering conditions. However, with regular spells of rain since November '14 and cold weather persisting until March, the dry weather and other conditions conducive for flowering were not realised. As a result, there is not only a delay in supply but

also an estimated shortfall of close to 50-70 per cent in overall production this year. Kesar mangoes are generally available in local markets across Gujarat by the 15th of April but this time around the supply was expected only by mid-May due to the delay in ripening of the fruit. Thus laments a mango farmer Arvindbhai Amrutiya in Talala, "By this time, prices will have dropped in the market".

However, what has changed significantly this season is decrease in the farmers' ability to cope with the economic impact of these repeated occurrences, and the reduced household income due to crop failure. For several years, income from mango production has been affected due to adverse weather events, forcing those solely dependent on their mango orchards to dig into their reserves. With these reserves now nearly exhausted, their very sustenance has come under threat. Pankajbhai Amrutiya of Ghusia village in Talala owns 5 acres of land with a total of 165 mango trees, which was leased out in 2013 for Rs. 4 lacs. In 2014, he could not lease his orchards as there were no mangoes.

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In the adjacent farm, Devjibhai Bhalani who owns more than 10 acres of land has invested Rs. 1.5 lacs (€2,300) to install a drip irrigation system. "How many trees do you own Devjibhai?" Pat comes the reply - "444", his face beaming with pride. He informs how he managed to get Rs. 8 lacs in 2013 as leasing costs for his mango orchard. "But that was then..." he says with a heavy sigh, searching his mango trees to find signs of the fruit. His mind is trying to beat down thoughts of the inevitable but the harsh reality of his current situation is too overpowering. "I have taken care of these trees like my children, how can I cut them?" he wonders as his eyes swell up with tears.

This instability in income due to the constant fluctuations in weather over the past few years is driving an increasing number of farmers to despair. Unable to cope, mango growers like Devjibhai who have no other landholdings on which commercial crops like castor, groundnut or sesame can be grown (and losses hedged) are being forced to cut down their orchards. Ramanbhai Bhandari, President of the Talala Aam Utpadak Sangh is a progressive farmer belonging to Moruka Gir village. To ensure that his mango trees grow in the most natural way, he has been using vermi-compost for the past 18 years and bio-fertiliser for the last 5 years on his farm. He has even set up a drip irrigation system and a canning unit for producing mango pulp at a cost of Rs. 10 lacs. With successive crop failures



however, all the investments in his farm have come to nothing. With mounting debts, he had to make a decision. Last month, he was forced to cut down 120 of his mango trees, many of which were more than 45 years old.

Ramanbhai squarely blames the state for his plight. "The state has made all bagayat (orchard) owners indebted", he says explaining how the lack of state support for ensuring a premium price for organic/natural produce, providing insurance for mango crop and marketing assistance for canned products is leading to this situation. And Ramanbhai is not alone. Danabhai of nearby Hiranvel village cut 65 mango trees this January after facing three consecutive seasons of crop failure. He has grown sesame on his 4 bighas (1.32 acres) of land where his mango orchard once stood as it offers better remuneration.

In the heartland of Gir's Kesar mango orchards, tales of rampant destruction of mango orchards to make way for commercial/cash crops are increasingly common. "If this situation persists, half of Talala's famed orchards will be wiped away over the next 2-3 years" says Mansukhbhai Sawaliya of the Gir Kesari Fruit and Vegetable Producer Cooperative. Nagabhai of the local Environment Conservation Organisation (ECO) nods in agreement - "there used to be a zamana (time or period) for mango; now that zamana (time) is over..."



3.1

Multi-stakeholder agribusiness enterprises- a collaborative approach to agricultural value chain development - Nagendra Rajawat & Sairam Subramanian

Including the people element to the already existing Public Private Partnership model would be ideal for the sustainable economic development of the agricultural sector

Developing smallholder-oriented integrated value chains requires collaborative relationships that leverage the strengths of different participants by building scale efficiencies and supplying differentiated yet market oriented produce. People Public Private Partnerships (PPPPs) provide an inclusive platform in bringing together the goals of profit maximisation and socio-economic welfare by organising the know-how and technical expertise of private sector actors, the knowledge of locals and the resourceful, pro developmental orientation of the public sector in the long-term benefit of farmers.

Including the people element to the already existing Public Private Partnership model would be ideal for the sustainable economic development of the agricultural sector. The Multi-stakeholder Agribusiness Enterprise (MAE) can be a perfect example of the PPPP model, given its organisational framework and its potential to include a variety of stakeholders - namely producer organisation(s)/ farmers, service providers, and market based value chain players thereby ensuring long term association between these service providers and the producers. By integrating producers into such enterprises an increase in bargaining power is envisioned in the medium to long term resulting in the realisation of economic impact by the entities involved in the specific value chain. Moreover the convergence of key stakeholders can help producers improve their technical capacities (grading, sorting, storage, transportation, secondary processing, packing, branding and marketing of produce), organizational competencies and access to resources (insurance, lower costs for agricultural credit and inputs) and technologies for enhancing their incomes and achieving economies of scale.

The new legal form of a producer company tries to address the shortcomings of its predecessor - the

cooperative, but falls short of ensuring a robust capital structure. The condition of producers qualifying as shareholders constrains its ability to increase its capital base. For producer companies with small and marginal farmers as majority shareholders, contributions towards subscription of share capital on account of inadequate capital becomes a bottleneck in scaling up operations. Despite economies of scale in input supplies and sale of agricultural produce, monetary benefits aren't shared and members retain too little. While FPOs with limited capital can (still) undertake input supplies, extension services, aggregation of produce etc., they still find it difficult to venture into sophisticated areas such as warehousing and processing, branding, packaging and agricultural marketing.

The convergence of key stakeholders can help producers improve their competencies and access to resources and technologies for enhancing their incomes and achieving economies of scale.

A sustainable approach aimed at aligning producers with market-forces requires inclusion of market participants as key value chain drivers. For strengthening the institution, desirable (in-kind) contributions of member-producers need to be incentivized by attaching a notional market comparable cost to them. For example, sorting and grading of produce entails a substantial overhead if undertaken

using hired labour. Similarly, holding or delayed sale of produce enables FPOs to save valuable interest payments for commercial working capital. Such in-kind contributions by member-producers can be assigned a price tag and converted to capital, and in deserving cases remunerated in the form of performance-based grants. The increased capital base will act as a motivator for member-producers to continue contributing to the FPOs growth and well-being. Since post-harvest activities like sophisticated processing, state-of-the-art warehousing, packaging, branding and other activities are capital intensive and yield favourable economies of scale, there is a need to organise FPOs into institutional development models. Similarly, for farmers to benefit from domain knowledge

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DISHA was formally launched on the 13th of May 2015 in Gandhinagar by the honourable Minister of State (Agriculture, Civil Aviation) Shri Jasabhai Bhanabhai Barad in the presence of other dignitaries and high ranking officials



To maintain the economic interests of farmer producers, shareholding structure of MAEs shall be determined on the in-kind contributions that serve the economic interests of FPOs.

and technical know-how, a platform that brings together technical specialists, domain experts for their common benefit would be useful for capacity development and market integration.

Multi-stakeholder Agribusiness Enterprises as Special Purpose Vehicles

An MAE brings together FPOs, grass-roots organizations, technical & business service providers, government agencies and other entities in the value chain to improve bargaining power and economic gains for farmers. An additional advantage of the MAE is that long term equity participation is possible for all entities unlike producer organisations or cooperatives which restrict shareholder access to farmers/producers. To maintain the economic interests of farmer producers, shareholding structure (during first 3 years) of MAEs shall be determined on the in-kind contributions (of other partner entities) that serve the economic interests of FPOs. Thereafter the MAE can be treated as an SPV (Special Purpose Vehicle) for a period of three years.

The SPV can provide a convergence platform for key stakeholders and technical agencies engaged in the agricultural value chain. Furthermore, the SPV would catalyse a producer-oriented market-driven supply chain by ensuring representation from FPOs, service providers, social enterprises, industry players and public sector / quasi-state agencies. While the ownership of the SPV for the initial 3 years would rest with the FPOs, professional service providers, social enterprises and industry players, the SPV shall

draw upon a range of stakeholders that will bring in expertise across relevant functional areas and domains.

In line with the above organisational development strategy, GIZ Rural Insurance Services Programme has conceptualised and supported the incorporation of a multi-stakeholder agro business enterprise in the state of Gujarat. DISHA (or direction in Hindi) is incorporated through initial equity contributions of two farmer producer organisations (FPOs) who are founder promoters of the company.

DISHA was formally launched on the 13th of May 2015 in Gandhinagar by the Honourable Minister of State (Agriculture, Civil Aviation) Shri Jasabhai Bhanabhai Barad in the presence of other dignitaries and high ranking officials which included Shri A. M. Solanki, Principal Secretary, Department of Agriculture & Co-operation; Dr Shankar Singh Rana, Chairman, Madhur Dairy; Dr Natu Mackwana, Executive Director, DISHA; and Dr Detlev Holloh, Programme Director, GIZ Rural Insurance Services Programme.

DISHA is currently engaged in assisting mango producers of Gujarat organised under its institutional framework in supplying high quality, naturally ripened, residue-free mangoes directly to consumers. These direct linkages between producer organisations and consumers will help producers in understanding and better fulfilling the needs of the target group. Consumers also stand to benefit by having assured supplies of good quality mangoes proven safe after rigorous testing for chemicals. The initiative also provides an opportunity for consumers to directly support the goal of sustainable economic development of mango farmers in Gujarat.

4.1

How availability heuristics thwart consumer's quest for quality – Sandeep Bansal & Aniruddha Shanbhag



“Quality is never an accident. It is always the result of intelligent effort” – John Ruskin

The ability to spot fresh, safe and nutritious food is considered an art across many cultures, deducing quality of a fruit or vegetable by the number of bumps, marks and other external characteristics an unparalleled wisdom handed down by mothers to their daughters and fathers to their sons. The friendly neighbourhood veggie seller referred to as the “sabjiwala”, “thelawala” or “bhajiwala” (depending where one is from) has supported the learning and product knowledge development of several households by providing doorstep delivery and a no-questions-asked returns policy. Wherever this person went he created experts who were able to determine the quality based on their gift of observation fortified with street-smart intuition.

But this seems like a long time ago, and has also sadly coincided with the age of super/hyper markets, speciality/niche stores, etc.

Research indicates that online grocery purchases are largely the bastion of working couples enticed by tempting offers, price cuts and the promise of doorstep delivery. While the product looks shiny on the computer screen the reality of the products' actual quality dawns once the delivery person

reaches the customer's doorstep. Shopping en masse and buying larger than usual quantities is another noticeable trend at super/hypermarkets often fuelled by convenience, price cuts or both. Shopping in these establishments is a cold, impersonal ritual complicated by the several (product, category) labels on offer and clueless sales staff.

So where does this leave us? And do old school self-taught quality standards still apply or do we blindly trust an institution's sourcing ability in our quest for our daily FRESH, SAFE and NUTRITIOUS FOOD.

Consumers tend to generally avoid evaluating the multitude of options available and take shortcuts in the process of decision-making. Rational thinking is often replaced by availability heuristics. Simply put, heuristics are cognitive decisions based on little information which is often correct; heuristics are mental shortcuts that reduce the cognitive burden otherwise associated with rational decision making (Shah & Oppenheimer, 2008), some examples of which include rule of thumb, an educated guess, an intuitive judgment, stereotyping or profiling.

One universal behaviour is the inclination for acquiring the next best affordable product as individual finances improve. This inclination is universal and everlasting. But in reality, does this inclination ever turn into practice? Or does the consumer live in a utopian and self-conceived state of having used the 'best' quality products? Turning inclination into reality requires decisions based on sound analysis of the underlying parameters.

In terms of food quality, information is available and evaluation can be performed on parameters surrounding nutrition value, taste, aroma, shelf life, colour, appearance, texture, adulterants and hygiene. However, as the average consumer lacks the resources to analyse the produce based on these parameters, one tends to prefer often harmful shortcuts.

Take for example, the consumer obsession with colour and appearances while ignoring nutritional values which can result in long term negative health impacts. The representative factors discussed here

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Pomace by this definition isn't an olive oil and offers no health benefits! This has led to countries like Spain, Germany, and New Zealand banning pomace "olive" oil.

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provide a fertile ground for availability heuristics being a key element in decision making.

Consumers have always defied logical thinking. For example, when anybody thinks of cooking oil, one is usually inclined to prefer olive oil but instead ends up choosing an option called Pomace, the cheapest and least nutritional extract of olive oil. Pomace oil is the most degraded and least nutritional option that carries the word olive on its label, which in turn creates a perception of being 'healthy'. Pomace is the solid leftovers of olives after 'extra virgin' and 'pure olive' oils have been extracted in the first and second presses. The amount of olive oil in pomace is minuscule and is extracted by using a combination of chemical solvents and extremely high heat and not by pressing the olive which is a universally accepted healthy procedure. The International olive Council says that genuine olive oil has to be free from solvents so Pomace by this definition isn't an olive oil and offers no health benefits! The production of cancer-causing 'polycyclic aromatic hydrocarbons' such as benzopyrene is also a serious concern. This has led countries like Spain, Germany, and New Zealand to ban pomace "olive" oil.

Another consumer perception is that if a product is produced in a geographical area, it possesses all the desirable qualities. Common examples include Ratnagiri mangoes, Nagpur oranges and Himachali apples amongst others. Historical consumption coupled with availability heuristics results in a particular geography to be highlighted when a product is discussed.

Appearance and visuals are increasingly becoming fundamental to product value. An example is the comparison between brown and white rice. Brown rice is of superior quality but does not find enough consumers as white rice looks attractive and cooks easily. Polishing rice has the advantage of a better shelf life and 'improved' texture but the process removes essential nutrients, making people vulnerable to diabetes and neurological diseases amongst others.

During a field survey of pomegranates, we saw the bias consumers display towards packaging. Consumers bargain heavily while dealing with street vendors (thelawallas) when buying good quality pomegranates but when the inferior product is packed in a glossy plastic box in retail

outlets, it fetches a higher price thanks to the brand positioning and with little or no bargaining. Of course, better packaging does not ensure good quality and the absence of attractive packaging is also no indicator of bad quality.

Location is another important factor. In India, with a rising middle class, there is a growing perception that the point of sale determines its quality. In this respect a product from the malls and big retail stores greatly overshadows the produce being sold by a street vendor.

Consumers are also usually not ready to undertake any serious efforts in realizing their wants which is further compounded by the multiplicity of choices. Hoyer and others say that when the intensity of motivation, ability and opportunity to process information is low, decisions tend to be based more on availability heuristics. So to change consumer decision making behaviour, we have to make them aware about the long term impact on account of the regular consumption of their preferred goods. Information, Education and Communication (IEC) campaigns can educate the consumers.

Take for example, consumer obsession with colour and appearances while ignoring nutritional values which can result in long term negative health impacts.

On the retail side, a sense of responsibility should prevail, so that the consumers are not the means to an end (profit making) but rather a purpose. Mahatma Gandhi once said, "...the customer is not an interruption in our work. He is the purpose of it. ... We are not doing him a favour by serving him. He is doing us a favour by giving us an opportunity to do so..." This should act as a motto for product suppliers and producers. In addition, the marketing of consumables has to be consumer-centric. Accountability

and transparency has to be ensured in the entire process.

Initiatives at a global and state level have been undertaken in the form of guidelines and certifications like the Global Food Safety Certification (GFSI), Food Safety System Certification 22000, Safe Quality Food (SQF) and HACCP based standard operating processes, but these initiatives have had a very limited impact. Some of the reasons are the existence of redundant provisions, variable standards across certifications, non-compliance and a lack of awareness among consumers.

The market has its own limitations which need to be overcome to ensure a better quality of life.

4.2

Sowing the seeds- Fostering farmer engagement in Farmer Producer Organisations (FPOs)

– Nagendra Singh Rajawat and Pratul Ahuja

FPOs need to have frequent interactions and meetings with farmers through deployment of high-engagement tools across a well-structured timeline.



A sense of ownership and commitment by farmer members is largely dependent on the level of engagement with the FPO. Currently, FPOs engage with their members at 2 levels: a) the soft element focusing on the community and encompassing solidarity, strengthening bonds etc. and b) the hard commercial elements including provisioning of member-specific services, better price-realisation and technology transfer. Softer elements at the group and village level focus mainly on frequent interactions & meetings, group & village leadership and role delegation.

Previously, SHG (Self Help Group) and JLG (Joint Liability Group) models relied heavily on periodic interactions to promote harmony, discipline and engagement amongst members. However the underlying repayment-centric focus resulted in the entire exercise proving too monotonous and resulted in increasing fatigue levels of members.

Mr. Dhirubhai Vagadia (Shikshan Ane Samaj Kalyan Kendra, Gujarat) promoter of Avirat Agro Producer Co. Ltd echoes these sentiments; "FPOs need to have frequent interactions and meetings with farmers through deployment of high-engagement tools across a well-structured timeline". With this feedback in mind, audio-visual training sessions, inspirational movies, discussions

on case studies, guest speaker sessions, field visits to farms and small assessments are some of the tools that are being practiced. In addition, a local election for the representatives at group and village levels with a clear role definition and delegation has helped improve the reach and cost savings realized by these FPOs.

Role identification and delegation has also empowered the representatives by involving them in the election process. Similarly, members could be involved in peer monitoring which, apart from being cost effective, helps in processes such as quality control and certification.

Focus areas of the softer elements at the organisational level include participation of farmers during FPO formation, recognition of high performers, directorship, gradual withdrawal of the promoter and reacting to member feedback.

If FPO formation is driven by the promoting institution without adequate farmer participation, it greatly reduces the active participation and involvement of farmers. "Determining whose need it is to form (the farmers' or the promoting institutions') is important for the continued functioning of the FPO. Farmers should subscribe to the idea before they are made part of an FPO,"

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comments **Mr. Rajesh Shah, Managing Trustee of Vikas Centre for Development.**

Based on quantities supplied, adherence to procurement schedules and compliance to quality standards, a reward system can be introduced aimed at recognizing high performers. In addition, a transparent incentive structure will also foster a competitive spirit amongst members. Regarding directorship, getting elected as a director should be considered as inspirational. However, as the capacity development of the farmer members improves, a gradual increase in member attrition levels has been observed across FPOs. This is necessary to weed out the bad apples and encourage remaining members to take up ownership and accountability for the operations of the enterprise.

Mr. Sunil Pote, Promoter Yuva Mitra, Maharashtra adds, "Both backward and forward integration are necessary to keep members engaged. Member engagement also subsidizes if the promoting agency starts managing the enterprise instead of steering it. The ownership needs to be gradually transferred to members". This ensures that member's voices are heard and more importantly, considered during decision making.

Areas of concern across commercial decisions at a member level include labour sharing, higher and timely price realization, procurement of produce and access to technology.

An organisation based in South India has been implementing labour (sharing) arrangements among its farmer members. In this model, group members work on a fellow member's farm, for free and in rotation. This is especially beneficial for small and marginal farmers who may not have the financial resources to pay for hired labour.

"Every farmer, at an individual level, needs to get substantial benefit out of the collective or the interest levels will dip" is the opinion shared by **Mr. Dhyaneswar Bodke, Founder Abhinav Farmers Club, Maharashtra.**

Higher and timely price realisation ensures that farmers' interests are taken care of and they are likely to stay engaged ensuring tangible benefits in the form of higher yield, higher selling prices, and lower production cost. An added benefit is the FPO's ability to buy the entire agricultural produce from their members which can further improve motivational levels across members. Increasing access to new technologies through leasing of



machinery, demonstration and training also enhances farmer engagement with the FPO.

Key areas concerning the commercial elements at an organisational level include resultant savings for share applications, funds for organizing group meetings, balancing the extent of retained capital vs. patronage bonuses, inculcating organizational involvement and the provision of services based on the feedback received from members. The process of collecting equity capital is an issue facing several FPOs during this initial period, members may be told to deposit a fixed amount during every meeting towards share capital funding. This will not only engage the members in the initial phase but also address the challenges in mobilising share capital from members.

Most community-based organizations, in the initial period require continuous hand holding support at the field level. Promoting organisations need to acknowledge this and institute an effective system for ensuring appropriate conduct amongst members and the existence of result based monitoring systems. An investment in building a team of field executives may also be required to institute a system of feedback collection from members, it is the responsibility of the FPO to filter ideas and implement them.

Farmer-owned agricultural enterprises are special. While on the one hand, the primary purpose is the social improvement of farmer members, it is essential that the institution does not lose sight of the commercial and business interests. A continuous adjustment of the priorities – both in social and business aspects – should be the top managerial priority for such enterprises.

Determining whose need it is to form (the farmers' or the promoting institutions') is important for the continued functioning of the FPO.

4.3

Finance & Risk Management for Agricultural Commodities – Sairam Subramanian & Raghvendra Singh

“Working capital requirements of FPOs are very high, particularly when they expand into post-harvest processing and other downstream activities” – Prof. Trilochan Sastry, IIM Bangalore

“Neo liberalization has meant in short, the financialization of everything. There was unquestionably a power shift away from production to the world of finance.” - David Harvey, A Brief History of Neoliberalism

Every few weeks, farmer Jay Narayan Singh hauls onions and potatoes in a hired lorry to a wholesale market to sell them at a quarter of the retail price paid by consumers. “This market is nothing but a haven for middlemen who indulge in profiteering, depriving both farmers and consumers of a fair price,” says Singh.

In emerging markets, the agriculture sector is vital for economic growth, as it accounts for 60 percent of total employment and 20 percent of GDP. This is where the middlemen are able to extract maximum surplus from the value chain with their financial power and superior information thereby operating at significant scale and performing multiple functions single-handedly.

With this in mind, efforts are underway to organize farmers into institutionalized structures (farmer producer organizations-FPOs) which are expected

to increase their bargaining power.

Traditionally, the discussion on farmer producer organizations has been focused on improving supply chain efficiencies on a small scale based on an underlying assumption of operational scalability based on their initial success, this isolated approach ignores the criticality of finance and risk management.

Deep-diving the fundamentals

The complexities of agricultural commodity businesses are many, with information, capital and risk management differentiating between winners and losers. While an IT enterprise can do wonders with little financial and greater human capital, an agribusiness enterprise needs considerable financial capital to create time and place utility for its customers. In addition, the complexity of dealing with millions of producers, storage & transportation infrastructure, processors, exporters and finally, the consumers poses a great challenge.

It is therefore not surprising that one sees global giants such as Archer Daniels Midland (ADM), Bunge, Cargill, Louis Dreyfus, Olam, Sinar Mas and Wilmar not just trading physical commodities but operating from the farm all the way to the food manufacturing level. They have been integral to the transformation of the simple farm into a complex, globalized and financial business.

“Working capital requirements of FPOs are very high, particularly when they expand into post-harvest processing and other downstream activities” - Prof. Trilochan Sastry, IIM Bangalore

The most important advantage producer organizations could leverage is to operate on negative working capital; provided the farmers themselves finance the value chain operations and mainstream finance is made available.

Characteristics of some of these global giants operating within the agriculture commodity business are highlighted below:

The most important advantage producer organizations could leverage is to operate on negative working capital

Control over origination - They play a central role in the decisions on what to grow, where, how, the quantities involved and finally, the markets.

Price-setting or market power - The organizations possess superior market power. This leaves little room for price discovery creating high barriers for newcomers while reinforcing the firms' market power.

Playing on volumes - These companies profit from other activities such as financial speculation on agricultural commodity markets; index funds, transportation and storage. This ensures that they can profit regardless of whether prices are rising or falling.

Expertise through logistics - Large commodity traders own and operate storage and delivery systems that are indispensable to the global grain trade. The control of these physical stocks can have an important impact on grain prices.

Managing risks & enhancing returns - The companies trade in futures markets on their own account and on behalf of others. They also use hedge funds and other financial tools to manage risk and enhance their returns.

It is evident that gaining a competitive advantage in the agricultural commodity business is dependent on the capital required to engage in the business with the provision of adequate risk management procedures.

Criticality of financial structuring and risk management

Farmer enterprises dealing in agricultural commodities are no different from conventional enterprises that require differentiated types of finance at various stages of their development.

While working capital is critical for scaling up operations in the initial stages, developmental finance support in the form of equity and grant arrangements are also necessary. There is also a strong need to look at innovative financing arrangements that do away with the traditional balance sheet and Profit & Loss based assessment methods.

Structured finance is based on the transaction for which the finance is provided. The aim is to transfer



risks from parties less able to those more equipped to support them in a manner that ensures automatic reimbursement of advances from underlying assets such as inventory and export receivables.

Structured finance instruments can be clustered into the following major categories:

- Secured lending by insuring estimated yields and compensating in case of resultant shortfalls on account of unforeseen weather calamities or pests and disease infestations
- Secured lending through financial assets such as the assignation of future payment streams with more or less predictable cash flows (e.g. receivable-backed financing, factoring, forfeiting, etc.)
- Secured lending of physical assets forming in part the underlying commodity transactions (e.g. warehouse receipts financing, repurchase agreements, etc.)
- Securitization techniques based on selling claims on physical or financial assets on secondary markets (asset-backed securities, loan portfolios, accounts receivables, etc.)
- Warehouse receipt financing, where farmers are allowed to create bankable collateral by depositing

While working capital is critical for scaling up operations in the initial stages, developmental finance support in the form of equity and grant arrangements are also necessary.



commodities in warehouses. Third-party asset managers control and safeguard products in the interest of the holders of the warehouse receipts.

Though structured finance products have considerably evolved in India, financial institutions are oblivious to the ground realities that currently exist across resource constrained farmers.

Borrowers need to realize sale value against repayment to the lender. However, payments to lenders require the delivery of commodities which can be released by warehouses only on the payment of dues. This is a chicken and egg problem resulting in the structured financing model being avoided by farmer enterprises thereby encouraging the dependence on traditional channels of borrowings at high interest rates.

While working capital arrangements and term lending products are available to farmer enterprises, what many of them need is an instrument that helps them in tiding over short term cash flow mismatches.

"It is not the manager's job to prevent risks. It is the manager's job to make it safe to take them." - Ed Catmull.

The myriad and complex nature of risks associated with the agricultural commodity business calls for adopting multiple approaches; many of them requiring technical expertise.

While market related risks can be hedged with market supported financial instruments, counterparty risks continue to be an issue as they are exacerbated by economic and market conditions. Counter party risks are usually addressed through over-collateralization and structured finance.

Without integrated risk management approaches, profits could be wiped out in a short time forcing bankruptcy. Possessing the financial wherewithal with adequate risk management procedures is a necessity for the continued sustenance and competitiveness of the agricultural commodity businesses.

5.1

Malay Poddar, CFO, AIC of India Ltd.



Mr. Malay Kumar Poddar joined the General Insurance Corporation of India (GIC) as a Generalist Officer in 1986 and was inducted in the Crop Insurance Department of the General Insurance Corporation of India (GIC) after undergoing a six month's comprehensive training program in relevant disciplines of General Insurance.

Mr Poddar, has been closely associated with the implementation of various Crop Insurance Programmes introduced by the Central

Government. He has a total field level experience spanning 14 years' in six Indian States before joining the Agriculture Insurance Company of India during its incorporation in 2003-04. He has an academic background in Agricultural Sciences and is a Fellow of the Insurance Institute of India. He has contributed in the formulation of various crop insurance products and is presently designated as the Chief Financial Officer and Head-Reinsurance for the Agriculture Insurance Company of India.

5.2

Sunil Pote, Director, Yuva Mitra



Mr. Sunil Pote holds a Master's degree in Social Work from the Institute of Management, Research and Technology, Nashik, Pune University and a graduate degree in Arts, from the BW College for Commerce and Science, Sinnar Maharashtra along with a diploma in Labor Law and Labor welfare from Pune University. He has also been an active member of the Chhatra

Bharati and Rashtra Sewa Dal and has participated in the Narmada Bachao Andolan with Medha Patkar and Baba Amte.

Mr Pote started his career in 1994 as a social worker in Abhivyakti Media for Development, Nashik in the area of education with specific focus on tribal children in ashram schools. In 1997 Mr Pote joined GLAXO (Gramin Arogya Sanstha) as a Project Coordinator for the Tribal Health Programme and was responsible for the overall planning and implementation of the programme for the next 5 years.

In 2001, Mr Pote moved to Lonarwadi, his birth village and devoted his time in undertaking social development activities. Here, he incubated his start-up Yuva Mitra with friends having common interests in social development. Yuva Mitra has since diversified into four focal areas – natural resource

management, agriculture livelihood development, health and education.

Mr Pote brings proven expertise in the area of (community-centric) institutional development, natural resource management, livelihoods and community development. He has been closely involved in the development of strategic interventions and programmes focused on the community at its core, and has created replicable and sustainable solutions in diverse areas which include water use, farmer producer companies and other grassroots entities using multi-stakeholder cooperation approaches.

Mr. Pote has been instrumental in registering the first FPO and establishing Agri Malls, a first of its kind concept, established in the year 2011 in Maharashtra under the Devnadi Valley Agricultural Producers Company Ltd with an

initial composition of 850 farmer members.

Mr. Pote's contribution in the area of agricultural and livelihood development has been recognized by reputed institutions, and he is the proud recipient of the the Vasundhara Mitra Award in 2010 instituted

by Club Mahindra & Kirloskar Group of Companies, Praj Maha Entrepreneur Award in 2012 by Praj Industries and Symbiosis institute, Pune, and Ananya Sanman in 2012 by Z 24 Tass news channel, Youth Icon in 2014 by Sakal Media Group and Mahindra Samruddi Sanman 2014 by

Mahindra and Mahindra. In 2015 Mr. Pote was also appointed as an Independent Director for NAB Kisan Finance limited, a subsidiary of the National Bank for Agriculture and Rural Development (NABARD).

5.3

Natu Macwana, Executive Director- DISHA



Mr Natu Macwana is the executive director of DISHA (Dedicated Initiative for Sustainable Agriculture Gujarat), a farmer oriented multi-stakeholder agribusiness enterprise with participation from small holder, tribal farmers and 18 grass root organisations. DISHA was

incorporated with an initial share capital of Rs. 1,00,000 contributed by two FPOs (Farmer Producer Organisations) in the Indian state of Gujarat.

Mr Macwana has a rich background of more than 12 years in the developmental sector largely concentrated around natural resource management, livelihoods, water and sanitation, soil based issues, community-based organizations and village institutions (farmers organizations, SHGs & PRI).

Prior to DISHA, Mr Macwana was responsible in leading Sajjata Sangh, a network of NGOS working Natural Resource Management issues (NRM) in Gujarat with focus on "Sustainable Community Based Approaches to Livelihoods Enhancement"

(SCALE) an initiative funded by the Aga Khan Foundation, New Delhi and co-financed by the European Commission (EC) and OXFAM. Mr Macwana also advised the Gujarat state government under the aegis of the Chief Minister's Ten Point Programme, implemented by the Tribal Development Department and the Development Support Agency of Gujarat.

Natu Macwana has rendered his services to reputed organizations such as Coastal Salinity Prevention Cell, Tribal Development Department, Behavioral Science Centre, and Caritas India. As a social mobilization and network management professional he has several important projects to his credit covering thousands of farmers across different regions of Gujarat.

6 Recently Concluded Events

RISP in action
July 2015

6.1

Integrating value chains to manage agriculture commodity supply risks in Maharashtra, Mumbai, 25th November



The GIZ-RISP component on Integrated Risk Management (IRM) includes interventions in the area of rural institutional development by mobilizing farmers into Farmer Producer Organizations (FPOs), and developing market oriented models and frameworks, with participation from a variety of institutions. These institutional frameworks are envisaged to contribute to the supply requirements of industry and consumers by fulfilling the demand for quality-assured,

market-driven, safe, traceable and ecologically friendly produce with stable volumes and transparent prices.

As a starting point, a half day workshop was organized by GIZ on the 25th of December 2014 in association with the Maharashtra State Agricultural Marketing Board (MSAMB) at Mumbai. Representatives of 15 major companies including TESCO, Metro Cash n Carry, ADF, Sodexo, Tasty Bites etc. representing the food processing, retail, cash & carry, agricultural exports, online grocery & HORECA segments participated in this workshop. The key objectives of this workshop were to obtain insights into the first-hand experiences of market participants in establishing direct sourcing / backward linkages with farmers for procurement (of fruits, vegetables, and staples); identifying key challenges encountered in these procurements; developing an integrated model for sustainable, safe agricultural value chains with active industry participation; and deliberate on future options for

collaboration under the PPPIAD (Public Private Partnership for Integrated Agricultural Development) scheme of Govt. of Maharashtra.

Key points of agreement from the workshop were a) Development of a system for establishing common standards across commodities in association with private and industry actors; b) Developing an ecosystem of buyers who can assist in the processing of products, thereby improving shelf life retention and reducing wastage, c) Need for long-term commitments from suppliers with fixed price contractual understandings; d) Supporting development of future markets to achieve better price realization for farmers and producers; e) need for development of a mechanism for enforcing commitments across third party contracts and highlighting cases where commitments have been dishonoured. Creation of a public database for contractual and habitual defaulters of such contracts.

6.2

Alliance for Inclusive Insurance, panel discussion, Inclusive Finance India Summit, 9th December 2014

As a part of the Inclusive Finance India Summit 2014, GIZ-RISP along with Access Assist organised a panel discussion on the role of inclusive insurance solutions for supporting the risk management needs of low income segments.

The event proceedings started

with a presentation made by representatives from GIZ-RISP, which was followed by a discussion across a diverse group of participants from microfinance institutions, grassroots organisations and the insurance sector. The concept of a common convergence platform for sector representatives was well



received and an urgent need for such an institutional framework highlighted by assembled participants.

6.3 Integrating value chains to manage agriculture commodity supply risks in Maharashtra, Nagpur, 19th December



GIZ-RISP, in association with the Maharashtra State Agricultural Marketing Board (MSAMB) organised a daylong workshop on 19th December, 2014 at Hotel Radisson Blu, Nagpur. The objective of this

event was to establish the foundation for the development and operationalization of an integrated value chain model which facilitates commodity sourcing and other forward looking associations between FPOs and the industry.

Around 75 participants from 28 grassroots organizations/farmer organizations from Maharashtra participated in this event. The Honourable Additional Chief Secretary for Agriculture, Maharashtra Dr S K Goel, IAS was the guest of honour for this event.

The workshop conducted an analysis of inherent capabilities across Farmer Producer Organisations in supplying directly to the food retailing and processing industries & envisaged their expectation across this process. Other relevant highlights

included the identification of key challenges in direct marketing engagements between FPOs and market participants, the need to identify stakeholder roles and responsibilities in the development of integrated value chains, identification of commodities/regions for developing future pilots in the area of integrated value chains, and development of steering structures for planning and implementation of integrated value chains by understanding the expectations of state agencies & public sector organizations.

The workshop paved the way in laying the foundation for future institutional frameworks and partnerships in supporting direct sourcing requirements of retail and food processing sector from farmer producer organizations through public, private & producers' participation.

6.4 Alliance for Inclusive Insurance, stakeholder consultation with International Network of Alternative Financial Institutions (INAFI) members, 11th March 2015

GIZ-RISP in association with INAFI organised a stakeholder workshop to gather and consolidate feedback on the need for a convergence platform to further the growth of inclusive insurance for low income segments. INAFI is a global network of development organisations involved in supporting microfinance programmes in Asia, Latin America, Africa and Eastern Europe. INAFI brings together

microfinance practitioners and NGOs at an international, regional and country level in India, Bangladesh, and the Philippines. The event saw participation by 20 local institutions along with the CEO of the India chapter Mr Kalyana Sundaram. Participants at the event expressed their views on the need for a common convergence platform and its relevance in improving institutional capacity thereby improving their ability to

offer demand driven, relevant insurance solutions thereby supporting the growth and future market development of the sector.



7.1

Educational and awareness films: Good Agricultural Practices



GAP (Good Agricultural Practices) consists of a set of principles, standards and technical recommendations applied to the production, processing and transportation of agricultural products. GAP is aimed at taking care of human health, protecting the environment and improving conditions for workers and their families. The direct and indirect beneficiaries of GAP are farmers and their families who add greater value to their products; consumers who will have higher-quality and socio-environmentally responsible products, and society in general that will enjoy a protected environment and more equitable social relations.

GAP comprises established procedures aiming to control the risks and hazards present at each operational step. Most

documents related to GAP contain complex terminology and have a technical orientation. As a result, farmers and their support organizations have difficulty in understanding the requirements for GAP implementation and benefitting from it.

GIZ-RISP has initiated the development of educational and awareness films on GAP which provide technical and operational understanding on GAP through a mix of orientation modules and real-life case studies of producers. These films shall not only familiarize farmers and their support organizations about the technical aspects of GAP but shall also provide first-hand perspectives and experiences of their fellow farmers who have tried to implement GAP, thus ensuring a balanced picture of GAP.

7.2

Discussion paper: Alliance for Inclusive Insurance



The first step in the stakeholder consultation process outlining the broad framework of the Alliance for Inclusive Insurance. The document outlines the objectives of the alliance, administrative functions, financial models, governance structure as well as the basis of future stakeholder consultations and deliberations. An essential tool for facilitating stakeholder consultation events keep watching this space for version 2.0 available later this year with amendments based on stakeholder feedback.

7.3

GIZ & AICI case study: A study of WBCIS basis risk in Rajasthan



GIZ RISP and AICI conducted a study in 148 farms across 5 districts in Rajasthan (Baran, Churu, Jaipur, Jodhpur and

Udaipur) during Kharif 2014. The study comprised of audio-video recordings at two stages of the crop production cycle, for

one reference weather station in each district. Each area served by the relevant weather station was classified into 4 zones based on proximity; with zone 1 within a radius of 1 km and zone 4 within a radius of 5-10 km. The analysis of basis risk entailed a comparison of the yield or loss estimations calculated by the expert team, the surveyor team, and the farmers. The analysis was further broken down according to a "crop type proximity matrix"; comparisons were done according to crop yields of the same crop in the same zone, crop yields for different crops in the same zone and yields for same crops in different zones, so as to understand the effects of crop type and proximity on spatial and design-effect basis risk.

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