

Magazine on Low External Input Sustainable Agriculture



LEIS INDIA

Farmer Organisations





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A meeting of 'sangham' members in Andhra Pradesh.
(Photo: DDS)

The AgriCultures Network

LEISA India is a member of the global Agriculures Network. Seven organisations that provide information on small-scale, sustainable agriculture worldwide, and that publish:

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The editors have taken every care to ensure that the contents of this magazine are as accurate as possible. The authors have ultimate responsibility, however, for the content of individual articles.

The editors encourage readers to photocopy and circulate magazine articles.

Dear Readers

Across the globe, agriculture and those dependant on agriculture, especially the small holders and family farmers, face a number of challenges. These challenges range from production challenges like degradation of resources and climate change impacts to access to knowledge and services like inputs, credit and markets. Most often, it is impossible to overcome these challenges, individually.

Interestingly, new forms of innovative organizations and institutional arrangements have emerged to provide a response to the numerous constraints that small producers face. These arrangements are enabling farmers to not only access knowledge and services, but are also emerging as platforms for sharing, learning, strengthening their capacities, thereby empowering farmers to also influence policy makers. In this issue, we have brought together experiences of small farmers, individuals and institutions who are empowering farmers by organising them and fostering unity.

You can download this issue and all other previous issues of LEISA India from our website www.leisaindia.org. Our special language editions in Kannada, Hindi, Tamil, Telugu and Oriya are also available on the website.

While we thank all those readers who have been contributing voluntarily to the magazine, we request you to continue supporting us. To enable us to share a printed copy with you during the year 2013, kindly send your contributions along with the enclosed form.

The Editors

LEISA is about Low-External-Input and Sustainable Agriculture. It is about the technical and social options open to farmers who seek to improve productivity and income in an ecologically sound way. LEISA is about the optimal use of local resources and natural processes and, if necessary, the safe and efficient use of external inputs. It is about the empowerment of male and female farmers and the communities who seek to build their future on the bases of their own knowledge, skills, values, culture and institutions. LEISA is also about participatory methodologies to strengthen the capacity of farmers and other actors, to improve agriculture and adapt it to changing needs and conditions. LEISA seeks to combine indigenous and scientific knowledge and to influence policy formulation to create a conducive environment for its further development. LEISA is a concept, an approach and a political message.

MISEREOR founded in 1958 is the German Catholic Bishops' Organisation for Development Cooperation. For over 50 years MISEREOR has been committed to fighting poverty in Africa, Asia and Latin America. MISEREOR's support is available to any human being in need – regardless of their religion, ethnicity or gender. MISEREOR believes in supporting initiatives driven and owned by the poor and the disadvantaged. It prefers to work in partnership with its local partners. Together with the beneficiaries, the partners involved help shape local development processes and implement the projects. This is how MISEREOR, together with its partners, responds to constantly changing challenges. (www.misereor.de; www.misereor.org)

AME Foundation promotes sustainable livelihoods through combining indigenous knowledge and innovative technologies for Low-External-Input natural resource management. Towards this objective, AME Foundation works with small and marginal farmers in the Deccan Plateau region by generating farming alternatives, enriching the knowledge base, training, linking development agencies and sharing experience.

AMEF is working closely with interested groups of farmers in clusters of villages, to enable them to generate and adopt alternative farming practices. These locations with enhanced visibility are utilised as learning situations for practitioners and promoters of eco-farming systems, which includes NGOs and NGO networks. www.amefound.org

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ILEIA - the Centre for learning on sustainable agriculture is a member of Agriculures, a global network of organizations that share knowledge and provide information on small sale, sustainable agriculture worldwide. ILEIA in The Netherlands functions as the secretariat of the network. Information is mainly exchanged through Farming Matters magazine. (www.theagriculturesnetwork.org).

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9 Getting together

Community based fish culture

Rajkumar Pujari

By neglecting the village common water resource, fishermen in Malliyabad had lost a livelihood opportunity. By getting organised into user groups and practising community-based fish culture, the local communities have not only benefitted individually, but have also contributed towards the maintenance of common property resource of the village.



14 Women, families, communities

Gavin Tinning

In 2004, the province of Aceh in Indonesia was affected by a devastating earthquake and tsunami. The impact on the rural communities was particularly harsh, exacerbating the poverty and poor living conditions caused by a long separatist conflict. Under these difficult circumstances, the network of women farmers is not only benefitting all participants, but also their families and communities.



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Aman Singh

Alienation of local communities from the forests and their management has resulted in resource degradation and loss of livelihoods. *Rajasthan Charwaha Vikas Sanghathan*, a people's network, is a platform to help tribal communities regain their traditional rights over the forest resources.

36 Harvesting herbs

A farmers forum shows the way

Rajendra Shirol

Farmers in North Karnataka region have organised themselves and have found solutions together in overcoming crop failures. Their initiative in including medicinal herbs in their cropping systems is paying rich dividends.



Farmer Organisations

No other 'Producer' faces more challenges than a farmer does. He has to grapple with resource degradation, uncertain and unpredictable climatic conditions, poor advisory and other support services, unfavourable policies and the priorities of the government, all resulting in making him helpless, much more than what he/she already is.

On the other hand, agriculture continues to be a major contributor to the nation's production. The current crisis of food insecurity, poverty and hunger levels of the rural and urban poor, accentuated climate changes are one way or the other linked to the way agriculture is being practiced. Therefore agriculture, being pursued as the only livelihood option by millions of small holders, can no longer be ignored. The increasing failure of industrial models of production and agribusinesses has shown that 'more of the same' and 'business as usual' approaches do not work anymore. In such a scenario, how can the small holders survive?

Amidst all these uncertainties, there are plenty of examples of farmer's own initiatives providing multiple solutions. In recent years, a broad variety of institutional innovations have emerged in response to small-scale producers' constraints. Primarily, they are based on the basic principles – *'Together, we are stronger'*; supported by enabling agencies believing in *'helping those to help themselves'*. This issue focuses on showcasing few such experiences which not only offer inspiration but also bountiful learnings.

Triggering points

Fragmented and dispersed in remote areas, small producers face a number of challenges which cannot be tackled individually. Most of the times, the problems that farmers face are well known and similar - for instance, recurring crop failures, limited access to resources, farmer's low bargaining ability in markets, lack of facilities and linkages, lack of vision and abilities to work together, isolation and neglect leading to loss of rights and raise in hopelessness. Interestingly, instead of waiting for outside support, many farmers are organising themselves around a common interest to address one or more of these challenges. Fresh approaches are being tried out to tackle these 'old' and 'well known' challenges and farmers are able to perceive a number of benefits.

When farmers come together, they see it as an opportunity to socialize, share and learn. Learning through Farmer Field Schools



is a well known approach which banks upon the group approach for learning. Farmer groups as learning platforms have resulted in changed farming practices. They are changing the way they are farming – from conventional to organic. For instance, women groups in Tamil Nadu came together to produce healthy organic produce for self consumption and included new crops into their cropping systems (Suresh Kanna, p.32). In another instance, farmer groups in Karnataka chose to grow hardy medicinal plants, mixed with traditional cropping systems, thus increasing their net incomes substantially (Shirol, p.36). Also some farmer groups have come together to conserve and protect their natural resources which forms the basis for their farming. (Singh, p.28 and Pujari, p.9)

Starting with production, many farmer groups move towards collective marketing to benefit from economies of scale. The strength and unity that comes from cooperating and working together can be empowering for small-scale producers, who often lack the skills, knowledge and experience to successfully participate in the market. By working as a group, farmers can take increased risks and gain confidence. For instance, farmer groups in Maharashtra were able to tap the nearby urban markets through collective marketing of flowers (Andhale and Wagle, p.6). Also, shrimp farmers in Tamil Nadu organized themselves to profitably cultivate and market their produce for over two decades (Kumaran, p.11). Tie-up with large companies is also being tried out by some farmer organizations enabling them to earn better returns with minimal market risk. (Shirol, p.36)

Farmer organizations can also serve as a platform for farmers to advance their interests and influence policies, starting from the local level. For this to happen, farmer organizations need to network at a higher level, often including other grass root organisations and individuals, to build up the necessary support. For instance, guided by KRAPAVIS, an NGO, Rajasthan Charwaha Vikas Sanghathan, developed as a platform to help tribal communities regain their traditional rights over the forest resources. With more than 1000 pastoralists as members of the Association, the Sanghathan with its persistent lobbying efforts, succeeded in bringing about policy amendments that saw pastoralists included in the Scheduled Tribe and Forest Dwellers Act 2006. (Singh, p.28).

Patterns of governance

Most of the farmer organisations start off as informal groups. They are unregistered groups to start with. They continue to work together and avail benefits and will only register once the benefits of doing so are much more and evident. Interestingly, several groups operate successfully without being formally registered. For example, the Shrimp farmers association in Tamil Nadu remains an unregistered entity even after several years of functioning successfully. (Kumaran, p.11)

Farmer organisations can transform from informal farmer self-help groups to farmers' associations, producer organizations, federations and unions based on the need. For instance, the shrimp farmers organised themselves into Shrimp Association for availing the economies of scale (Kumaran, p.11); the fishery farmers group (an unregistered group) associated itself with a mandatory organized group - tank users group (registered society), recognizing the close link between tank water resources and fishing (Shirol, p. 36). In such cases, the roles and responsibilities of each were well defined and executed along with transparent revenue and benefit sharing procedures. Some of the groups, though informal in nature, handled a range of functions, such as, production and marketing; bulk purchases for quality and better economics and management of common infrastructure. Also, in many cases, strict regulations and procedures were in place with a voluntary code of conduct and transparent dispute and conflict resolution procedures. Some of the other services offered were credit guarantee by the association, servicing requests by resource persons identified and certified by the association, obtaining competitive pricing by inviting tenders from traders.

While the governance mechanisms differ from group to group, so also the governance may differ at various levels. For instance, Rajasthan Charwaha Vikas Sanghathan is still an unregistered association but has its district level chapters handling different set of activities based on their local concerns, agendas and issues. (Singh, p.28).

Whatever be the form of the organisation, there are some characteristics which hold farmer organizations together - a common interest, mandatory membership, rules, regulations and discipline, adherence to quality standards in production, shared roles and responsibilities on a rotation basis.

Partnership models

Traditionally, farmer organisations were promoted and supported by the Civil Society Organisations. But gradually, this 'group approach' was recognized as a sustainable mechanism by various actors in the field of development. While the mainstream agencies used these 'farmer groups' as a 'safe means' to deliver their schemes, the corporate agencies primarily focused on using these groups as 'commodity groups' and strengthening their value chains. In the 'contract farming' model described on page 20, buyers/end

users/ exporters/ industrial users are in agreement with farmers/ group of farmers/ farmers association (Reddy, p.20). However, it is interesting to note that the farmers are paid higher when market prices are up and paid agreed price when market prices are lower. Also, the knowledge support by research institutions and creation of infrastructure by private sector were noteworthy. On the other hand, 'collective farming' by Women Farmers Collective, focused on organizing widows and landless women enter into a leasing arrangement with the owner with clear procedures for sharing crop yields. The objective of some of these initiatives was not profit maximization but getting access to organic produce for household consumption.

Along with globalization, came an institutional innovation in the form of farmer producer companies. These companies, which started as a small farmer organization, initially focused on learning and technology adoption and slowly moved on to become producer groups. Many agencies, including the government, started promoting Producer Companies, where farmer is a shareholder. For example, in Orissa, ATMA initiative leveraged expertise of KVKs and NGOs in organizing farmers into 1400 producer groups handling different agro enterprises based on suitability and their own preferences. (Mishra, p.24).

Issue of sustainability

Farmer organisations are often formed hastily, especially in the agriculture sector, for promoting collective action. Evidence shows that viable farmer groups can be promoted which can survive over a longer period only when an enabling environment is provided and backed up with capacity building and support for collective action. Presently NGOs are providing this support playing multiple roles. They are providing empathetic educational guidance and imparting management and negotiation skills, besides fostering processes of self reflection and learning. (Andhale and Wagle, p.6, Singh, p.28, Tinning, p.14).

It requires considerable time for the farmer groups to mature and work independently (Mishra, p.24). Strengthening the groups by building capacities of members, developing mutual trust and cohesion, allowing leaders to emerge, all these need a lot of time. Farmer organizations must be allowed to develop at their own pace and must be driven by the objectives of their members, not by the objectives of the development agencies. Therefore, time, effort and long-term investment are needed to build successful, effective, competitive and sustainable organizations of small holders that are able to achieve members' objectives.



Collective marketing for better incomes

K.D. Andhale and S.M.Wagle

With a little support, poor farmers can organise themselves and improve their livelihoods through collective efforts. *Vrindavan Pushpa Utpadak Sangha* has shown the way.

Vikramgad of Thane district in Maharashtra State has predominantly tribal population, who are dependent on subsistence agriculture. Though the area receives copious rainfall, there is water scarcity caused by water losses, owing to hilly nature of the terrain. Agriculture is predominantly rainfed and crops can be grown only during the Kharif (monsoon) season. Paddy is the main cropping system in the region. Crops such as finger millet, black gram, pigeon pea are also cultivated on smaller scale. Due to low productivity, farm production is not enough to feed the families for the entire year. During the off season, the tribals migrate to nearby towns and cities in search of wage labour.

The initiative

In 2004, Maharashtra Institute of Technology Transfer for Rural Areas (MITTRA), a development organization promoted by BAIF, Pune, started promoting Wadi model of agro horti forestry. In this model, horticulture crops are grown on one acre of land, agriculture crops are grown as intercrops and forest tree species are grown on the peripherals for providing small timber, fodder and non-timber forest produce. The land under Wadi is treated with soil and water conservation practices and efforts are made to provide resource for small-scale irrigation through farm pond, jalkund and open wells. Around the core activity of horticulture, a number of allied land based activities are added, to substantially improve income in a short period of time.

Small scale floriculture is one such activity that was promoted to complement the fruit tree cultivation. Floriculture has several advantages. Income from flowers could meet the family expenses during the initial years, as the fruit trees yielded only after six years of planting. Also, continuous production of flowers ensured daily visits to Wadi plots ensuring aftercare of the horticulture plants.



Family members are actively engaged in jasmine cultivation

Starting from 11 families in 2005, the number of families growing flowers increased to 430.

The farmers in Vikramgad had never undertaken floriculture as a traditional activity. For this reason, there was resistance, initially. Most of the families had no confidence in the success of floriculture as they were not aware of cultivation, marketing and income potential of the activity.

Meetings were organized at the hamlet level to explain the economic returns of the floriculture model. Farmers were provided with information on all aspects of cultivation. Exposure visits to floriculture plots in neighbouring areas was organised. These visits proved useful in convincing the farmers about the economic benefits of this activity.

Eleven tribal families offered to undertake cultivation in the year 2005. Plantation was done in the month of August. These families were provided with good quality planting material and inputs like fertilizers and insecticides. Two hundred plants of jasmine were planted on 500 sq. meter (0.05 ha) with an investment of Rs. 2500/-.



Sangha meeting

Families showing interest for floriculture were provided support for irrigation by linking them with projects of the tribal development department. Floriculture plots were regularly visited by experts for providing necessary guidance to the farmers.

The first harvest of jasmine flowers was available for sale in six months from plantation. The flowers were sold in the local market. A net return of Rs. 21,000 to 25,320 was realized. The sale provided steady income, which attracted more families to join the programme. Starting from 11 families in 2005-06, the number of families growing flowers increased to 430.

All the women members in the families of the flower growers are actively engaged in all aspects of the enterprise, from cultivation, harvesting to packing. Some women prepare beautiful garlands and *Venis* (flowers tied in patterns for adorning hair plait) to be sold in the local market.

Formation of Flower Growers' Organization

Farmers felt that the returns realized in the local market at Vikramgad were not very attractive. To improve returns, they took up activities which added value to the produce. Women were trained in garland and bouquet making. But still, they could not earn better incomes. The situation turned worse when payment by local traders became irregular. Some traders even defaulted on payment. The farmers therefore wanted to explore better markets. This necessitated them to form a collective to benefit from collective marketing. With the support of MITTRA, flower growers formed into *Vrindavan Pushpa Utpadak Sangha*, an informal organization of flower producers.

Presently, all the 430 flower growers belonging to 21 villages are members of the Sangha. There are 22 women members too in the Sangha. There is an executive committee of fifteen members headed by a President. Responsibilities are shared among the executive members for conducting day-to-day operations. The responsibilities are undertaken on rotational basis. The executive committee conducts meeting of the flower growers, once a month to review progress and decide about course of action. Plans for

Some hard lessons learnt

- Once, the flowers were sent to Dadar market when the market was closed due to a *Bandh (closure)* called by a political party, the entire consignment had to be thrown out. This incident taught an important lesson to study the market situation on a daily basis. If the market does not open due to any reason, picking of flowers on the day is not undertaken.
- The consignment of flowers is transported by State Transport buses (ST bus). Flowers were placed on a carriage which is on the top of the bus and were exposed to sun and wind. Some bus conductors were refusing the consignment to be taken inside the bus. The project staff met the ST bus depot manager at Vikramgad and appraised him about the initiative. The depot manager was also invited as a Chief Guest during the Sangha's foundation day celebrations. Having realized the hardships put in by the farmers, the depot manager gave a blanket permission to carry the consignment inside the bus.

collecting the harvest from hamlets are made. Transparent accounting procedures are adopted. There is an air of informality in *Sangha's* operation which is conducive at the moment.

Collective marketing management

It was found that Dadar market, which is 130 kms away provides better rates to the producers and the traders are trustworthy. Exposure to Dadar flower market was organized to study the process of marketing. Collective marketing of flowers in Dadar market was initiated during September 2007.

The flowers are harvested early in the morning at about 5 AM by the family members. The harvesting is completed by 7 AM. The harvested flowers are brought to the collection centers in the village. The produce from each member is weighed and packed in jute sacks. Produce from different villages is collected at Vikramgad bus stand from where it is transported to Dadar by bus or train. One or two producer members accompany the produce for ensuring minimum damage during transportation. They are paid Rs. 200/- day from the *Sangha* as honorarium. The flowers are supplied to a wholesale trader. The transportation expenditure is borne by *Vrindavan Pushpa Utpadak Sangha*.

The rates of flowers in the market vary on a daily basis depending upon the demand and supply position. The trader makes payment to the *Sangha* on monthly basis based on the prevailing rates for each day. Payment is made by the trader in cash, which is deposited in the bank account of the *Sangha* at Vikramgad on a monthly basis.

The secretary of the *Sangha* keeps the records of income and expenditure and arrives at the rate per kg of the flower to be paid to the producers. Payment is made in cash on monthly basis in the monthly meeting where all executive members are present. Initially, MITTRA played an active role in maintaining records and making payments. This role has now been taken over by the *Sangha*.

Each member contributes Rs. 10 per kg of flower sold to the Sustainability Fund of the *Sangha*. This fund is used for purchasing inputs for cultivation. The inputs are provided to the members at cost. Since the scale of operation is small, the requirement of investment is not a constraint and financial institutions are not approached for funds. Some families are supported by funds available in the tribal sub plan. In addition, each member saves Rs. 10 per kg of flowers in the *Sangha* as their personal saving.

Table 1: Scale of production

Year	Flowers (MT)	Rate/Kg (Rs)	Gross Income (Rs in lakh)
2007 - 08 (Sept - March)	1.3	111	1.9
2008 -09	7.5	141	10.2
2009 -10	11.3	139	15.4
2010 -11	22.3	201	39.8
2011 -12	36.9	196	63.8
Total	79.4	158	131.1

Fig. 1: Supply Chain of Flowers



Around 79 million tonnes of jasmine flowers worth Rs. 1.31 crores have been sold in the Dadar market since 2007 (See Table 1).

Conclusion

Income from floriculture is substantial. The farming families have used this income for improving water resources and generating assets. Income from floriculture has helped farmers diversify their income sources (crop, livestock, manual labour etc) ensuring better sustainability. There has been an improvement in the quality of life of the families undertaking floriculture. All this has been possible due to collectivization of produce.

As the *Sangha* is still evolving, the handholding support by the NGO cannot be underplayed. As the confidence level in the tribal farmers is low, an external support is important during the initial periods. MITTRA has been instrumental in bringing about this change in Vikramgad.

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Getting together

Community based fish culture

Rajkumar Pujari

By neglecting the village common water resource, fishermen in Malliyabad had lost a livelihood opportunity. By getting organised into user groups and practising community-based fish culture, the local communities have not only benefitted individually, but have also contributed towards the maintenance of common property resource of the village.

Somasamudra, is a minor irrigation tank in Malliyabad village in Raichur district in Karnataka State. Around 33 families who do not own land depend on fishing in Somasamudra tank for their livelihoods. The tank spreads over an area of 45 hectares, with an effective water spread area of 22.5 hectares. The tank retains water for about 8-9 months. The command area of the tank is 74.45 hectares and catchment area is 12.12 Sq.km.

Communities have been getting their fishing rights by way of auctions. The fishing lease is generally given for a period of one year. The tanks are stocked with relatively very small fingerlings (1.0 to 1.25 inches). The survival rate is also very low - about 5 to 10% owing to predation by other fishes, insects, frogs, snakes and birds. The tank with silt accumulation is covered with lot of aquatic weeds. Though the fishermen are formed into Malliyabad Fishermen Co-operative Society, yet the fishing activity is largely managed by private contractors, making fishing less remunerative. Also there is a lot of interference by middlemen in obtaining fishing rights, harvesting and marketing fish. Landless have no 'stakes' in fisheries activity except for having an opportunity for wage labour.

In such a context, *Jala Samvardhane Yojana Sangha* (JSYS), a project by the Government of Karnataka, chose Somasamudra tank for developing and promoting community based fish culture. Karnataka Community Based Tank Management Project (KCBTMP) under JSYS, funded by the World Bank was the first project in the country to take up tank rehabilitation through community participation. The project aimed to rehabilitate 3925 tanks in 95 taluks in 18 districts of the state with local communities as major stake holders.

The objective of the project was to improve rural livelihoods and reduce poverty by developing and strengthening community based approaches to improving and managing selected tank systems. The



Women participating in a training session on fisheries

With better tank management,
the fish yield increased by
three times.

objective of promoting fisheries was to provide opportunity for income generation for the local tank communities who have little or no access to land in tank command areas.

The project

Initially, the project staff created awareness on the growing needs of water and the importance of maintaining tanks for meeting all the water needs of communities. They discussed the various interventions taken by the project in the neighbouring districts like tank desiltation, creation of dead storage area, tank renovation and shared its impact on fisheries, forestry and agriculture. Understanding the benefits of maintaining the tank systems, the village communities showed interest in getting involved in the programme.

All the 120 members of the fishermen community organised themselves into Tank Users Group (TUG). The members of the *Malliyabad Fishermen Co-operative Society* which was formed earlier were co-opted as members of *Malliyabad Raitharakere Abhivrudhi Sangha* (TUG).

The Tank Users Group is a registered society. All the families in the village, the gram panchayat members, members of fishermen



Mallyabad women harvest fish

societies, yuvaka sanghas and SHGs became members. The Grama Sabha elects the office bearers of the society.

TUGs are responsible for the operation and maintenance of the tanks and collection of revenues like water tax, fisheries royalty etc. The TUG have a Tank Development Fund (TDF) Account in the Grameena Bank in which income from fisheries is deposited. All the activities pertaining to the society and the fish production is recorded in the proceedings book.

The project extended both technical and monetary support to the members. Firstly, the capacities of the fishermen were strengthened by way of trainings. Members were provided financial support for obtaining fishing rights, procure advanced fish fingerlings, and for buying harvesting inputs like nets. Besides, the members were also provided the technical, marketing and legal support as required.

The process

The fishing lease rights for tanks was obtained from Fisheries Department, by paying a lease rent of Rs.150 per hectare. Then

Tank Fish Model for seasonal tanks (for per hectare water surface without artificial feeding)		
Item		Amount (Rs.)
Production Output		
I	Yield - 533Kg/ha Income@ Rs.22.5/kg	11992
	Total Gross Income (in Rs.)	11992
Cost/Input		
II	Lease Amount per annum	150
III	Lime - 25 Kg @ Rs.5/Kg	125
IV	Organic Manure - 100 Kg @ Rs.2/Kg	200
V	Advanced Fish Fingerlings – 3000 @ Rs.0.50/fingerling	1500
VI	Harvesting cost @ Rs.4/kg for 533 kg/ha	2132
VII	Watch & Ward – 2 persons @ Rs.450/person/month	1800
	Total Cost (in Rs.)	5,907
	Net Income (in Rs.)	6,085

the tank was prepared by application of lime, followed by organic manuring. The group successfully completed tank renovation at a cost of Rs.13,87,000. Weeds from the tank were removed. A dead storage (Fish Pond) was created with a depth of 1.25 meters. Around 1,35,000 advanced fish fingerlings of Indian Major Carps : Catla (60%), Rohu (20%) and Common Carps (20%) of 2.0, 2.5 & 3.0 inches in size respectively, were stocked in the tank. The stocking density was maintained at 3000 per ha. This was done during the monsoon season (July to September). Watch and ward was kept to avoid poaching. After 5 ½ months, partial harvesting was done and after 6 months, final harvesting was done. The fish harvesters were paid labour charges of Rs.4-5 per kilogram of fish harvested. Marketing was taken care by women.

Results

With water being available in the tank for eight months a year and without any supplementary feeding to the fish, the fish yield obtained was 533 kgs per hectare. This is thrice the yields obtained earlier. The net revenue from the fish production was approximately Rs.2,70,000/-.

Out of the revenue generated from fisheries – 50% was divided among the beneficiaries (fishermen, landless small marginal farmers) and 50% went to Tank Users Group. The Gramasabha of Mallyabad decided to utilize the revenue for renewal of fishing lease rights and organisation of the next fish crop and for the general development of the village.

Besides fishermen, other vulnerable groups of the community like the landless, poor farmers, women and youth also benefitted from the programme. Around 70 women got employment for 5 months – through selling of fish. Besides, women were also involved in stocking and harvesting of fish. Fish culture, has certainly created sustainable livelihoods for the poor, especially the rural women in Mallyabad.

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Common infrastructure - inlet canal

Sustaining shrimp farming

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Small Farmers Groups (SFG) can play a very important role in managing the shrimp farms and environment. The Shrimp Farmers Association is a successful case which has been instrumental in sustaining and upscaling shrimp farming in Pattukottai taluk.

Tambikottai-vadakadu farm cluster in Pattukottai taluk of Thanjavur district, Tamil Nadu is a unique farmers association, which manages a group of farms successfully. The experiences of this association provide many useful lessons that may benefit farmers elsewhere.

Shrimp farmers in Tambikottai-Vadakadu are basically agriculturists. However, shrimp farming is the main occupation for most (87%). Shrimp farming made its beginning in this area during 1990s with the initiative and active support from the Marine Products Export Development Authority (MPEDA). Due to its unmatched profitability, this enterprise has attracted many local

farmers towards shrimp farming. Since then the area under cultivation has increased considerably. This shrimp farm cluster has 160 ha of water-spread area owned by 26 managements. Most of the farms were small in size with less than 4 ha area and growing only one crop per year during the summer.

Most shrimp farms in the area are managed by farm technicians (graduates in zoology with some training in shrimp culture and/or postgraduates with diploma in aquaculture) who stay on the farm around the clock. In addition to technicians, all the farms employ Consultants alias Doctors (who have doctorate in marine biology or Zoology and who have proven experience in shrimp culture in their locality) who visit their clients' farms periodically (once in a week) to monitor the pond/farm parameters and counsel the farm technicians.

This farm cluster has a unique Farmers Association, which coordinates the entire shrimp culture operations including marketing. The association was formed by some of its more active members during the mid-nineties to counter the anti-shrimp lobby. When the farmers suffered crop failures due to disease outbreaks they became convinced that successful culture is possible only if all the farmers cooperate and adopt appropriate management practices together. Hence, they resolved to strengthen the association so that it can supervise and control each and every operation in all farms and enforce necessary regulations.



Some members of the Shrimp Farmers Association

The association has self-regulated shrimp culture in the cluster since 1998.

Role in Shrimp farming

The association meets well ahead of pond preparation and form teams to supervise preparatory works. The Association forms teams for seed procurement. The stocking density and number of ponds to be stocked depending on the availability of water are decided in the meeting. Based on the requirements, a team is deputed to book seed in bulk from one or two reputable hatcheries (near Marakkanam). The team is responsible for screening the seed for disease and transporting it to farm sites. The association does not permit stocking wild seed. When the number of shrimp ponds increase, more than one team is formed to procure quality seed. The supply of other inputs like feed is arranged on credit basis providing guarantee by the association.

All the ponds are stocked simultaneously or within a week. If any farmer fails to stock within 10 days, he was not allowed to stock for next 60 days. The stocking density is @ 5 post larvae per square meter and the survival rate averages 80-90%. The total feed consumption is about 1.2 to 1.4 tonnes/ ha with a feed conversion ratio (FCR) of 1.2 to 1.4.

Ponds are monitored round the clock by observing the check tray and the behavior of shrimps. In order to reap successful crop for all, the association enforces some regulations on its members and it is considered the moral duty of all the farmers to follow them strictly. All the farms should have a reservoir of minimum 10% of its total water spread area and chlorination of reservoir is compulsory. All farms should employ technicians and consultants authorized by the association. If a farmer wants to try a new input, permission needs to be obtained from the association. If any disease problem arises during the culture, it must be brought to the

The association has brought unity among the farmers, secured fair price for the produce, provided a platform for knowledge exchange and has ensured harmony with the local people.

immediate notice of the association. The association recommends for premature harvesting or bleaching of the pond, based on the size of the shrimp/day of culture. The association also supervises the process of bleaching and reimburses the cost of seed and bleaching powder.

The association collects quotations from the available traders and decides the price for the produce on competitive basis. It bargains for better prices and advises the same to the members. The farmer can sell his produce according to his wish and bargain again with the available bidders to get more. Shrimp harvesting is normally done after 120 days of culture when they have attained 30 g size. In some cases, the culture period is extended to 130 – 150 days to get a good size. Harvested shrimps are mainly handpicked from the outlet, cleaned, segregated, weighed and iced. Average production is about 1.5 tonnes/ ha (30 tails/kg).

Membership and organization

Membership is compulsory for all farmers. A membership fee of Rs.500/- and monthly subscription of Rs.50/- per pond is paid to the association. A president heads the association with a secretary and a treasurer and all are elected democratically. While choosing the office bearers, experience in shrimp farming and exposure to different agencies working with shrimp culture were given preference. An honorarium is paid to the secretary for carrying

out the association work. The members share common expenses. Whenever some money is urgently needed, either the association or office bearers spend it initially and recoup later. The association normally meets once a month, attendance at the meetings is compulsory and repeated absence warrants action. Resolutions are prepared and passed unanimously after detailed discussion.

The association helps its members to obtain licenses from the Aquaculture Authority by providing necessary documents obtained from revenue authorities, prepare their applications, and submit them to the District Committee and follow-up for their clearance. It adjudicates the disputes among members amicably through discussion and persuasion. It has close contacts with district and regional level associations and deputed members for meetings and cooperates with them for promotion of shrimp culture. It maintains good rapport with the local people and it takes utmost care to prevent any negative impact on them. It also offers generous donations for festivals, schools and other charitable works. It interacts closely with the district administration and gets development schemes for the welfare of the local community.

The association has created common infrastructure like a supply canal for sea water, approach roads, common inlet canals and drainage. The responsibility to maintain them properly has been bestowed on the members. However, the association bears the cost of repairs.

The association ensures that people living in nearby villages are employed in local shrimp farms. On an average, two permanent labourers are employed per hectare of farm for carrying out regular operations and they stay at the farm throughout the culture period. Casual laborers are engaged during pond preparation, repairing of pond structures, de-weeding, harvest and other routine works. Women are involved as casual labourers in pond preparation and harvesting. The villagers availed employment, approximately for 60-75 days in an year in the shrimp farms.

Success of the association

The members as well as farmers from adjoining areas have been witness to the successful functioning of this association. Since 1998 they have raised successful shrimp crops and obtained good harvests. The farmers attribute their success to the association, which has ensured supply of quality seed, convinced the companies/suppliers for credit facilities for inputs and attracted new farmers into its fold as evidenced by the expansion of area under shrimp farming. The association has brought unity among the farmers, secured fair price for the produce, provided a platform for exchanging views, sharing their knowledge among the farmers and it has ensured harmony with the local people.

Looking ahead

Registration of the association as a legal body under relevant government provisions will strengthen its activities. Even credit, insurance and licenses may be issued only to the association, which has holistic approach for development of sustainable aquaculture in the farm cluster. Financial assistance may be given to such groups for developing infrastructure like wastewater treatment plants, cold storage facilities etc.

Farmers' representatives from the association may be included in the District and State level committees of the Aquaculture Authority to share their views in the planning process. Besides village level associations, there may be an active district level farmers committee and a dynamic farmers' federation at state level which can take care of the interests of shrimp farmers and function as an influential body. Accordingly, the shrimp farmers associations should be linked organically. The president and secretary of every association can become the members of the district committee and the president and secretary of all district committees can become the ex-officio members of the farmers' federation at state level. This will promote interaction and co-operation between the farmers and bring them under one umbrella for better benefits.

The association wants regular information through mass media on current price situation so that the farmers can get better returns for their produce. It was also of the opinion that hatcheries were responsible for majority of the mishaps and suggested safeguards through seed certification. It expected the Government to support the farmers through speedy issue of licenses, easy availability of credit, insurance and electricity. Establishment of aqua clinics and inputs testing/screening centers in coastal areas, closer interaction with research organizations, extension agencies and farmers, regulation of aquaculture and sensitizing anti-aquaculture activists about eco-friendly aquaculture were some other suggestions expressed by the association.

Conclusion

The case has clearly indicated that quality inputs and proper farming practices are essential for successful shrimp farming. Shrimp farming practiced with due consideration to environment and other stakeholders will help in eliminating social and environmental conflicts.

Farmers/farmer groups and their voluntary code of conduct are very important for sustainable shrimp aquaculture. The success of the Thambikottai-Vadakadu shrimp farmers association shows that such farmers groups/associations are necessary for sustaining shrimp farming. This could be assisted through provision of incentives by the government.

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Women, families, communities

Gavin Tinning

In 2004, the province of Aceh in Indonesia was affected by a devastating earthquake and tsunami. The impact on the rural communities was particularly harsh, exacerbating the poverty and poor living conditions caused by a long separatist conflict. Under these difficult circumstances, the network of women farmers is not only benefitting all participants, but also their families and communities.

Like many other organisations, ACIAR, the Australian Centre for International Agricultural Research, started a series of projects aimed at the recovery of farming in Aceh in 2005. Although we were well aware that many development programmes similar to the one we wanted to start are criticised for having had a limited impact, we wanted to support the many rural communities struggling to recover from the loss of life, displacement and breakdown of the community networks. Our projects were research-centred, seeking solutions to the soil and crop problems faced by farmers after the tsunami, and the early consultations and forums were predominantly attended by male farmers and government staff.

A chance meeting with Ibu Supriyani, an inspirational extension agent working on the tsunami-devastated west coast of Aceh with *Penyuluh Petani Lapang*, the local extension organisation, showed us the importance of providing direct assistance to women farmers. Like elsewhere, in Indonesia, women in rural Aceh are highly dependant on farming for their livelihoods, but, we could not see many programmes supporting them.

Small benefits add up

Supriyani had established organic agriculture groups made up of women farmers, working to provide an occupation for women who had no work in the tsunami-damaged rice fields, and who had limited opportunities elsewhere. With limited funds, the participants were making their own fertilizer from fish waste and manure, and growing small crops on vacant lands. The women's engagement and enjoyment of working together to produce food for home and sale, and their interest in learning new skills inspired us to include seed money for women's farming activities in a new project. The funds helped Supriyani provide training, establish new groups, and meet the growing demand to participate in the group programme.



Photo: Author

Preparing produce for market in Bireuen, Aceh

The initial financial support provided to the groups was small. The focus was on leadership and capacity building, to enable groups establish a solid basis for the future. Growing fresh food locally saves money, and helps families invest in, for example, education. Fresh organic crops now form a greater part of the diets of these families, improving their overall health. Training and capacity building has helped diversify the local food production options, creating more independent and sustainable communities. And some groups have taken their development further, identifying business opportunities to supply fresh and processed products to the local and regional markets. All this happens without disruption to family activities in the rice fields and rubber plantations.

Bringing women together, the start of a network?

It was not too long before we met other extension staff working with groups of women farmers, so as to bring them all together in a forum to identify the activities that should be supported. The discussions and recommendations from this first forum held in Aceh 2009 helped us design a training programme for women. This programme was built on Supriyani's model of group management, the group members' commitment, the management of profits, and also on an organic approach to farming small crops. This provided other extension staff with a guideline to establish new groups too.

In 2009, *Balai Pengkajian Teknologi Pertanian*, the provincial agricultural service (or BPTP), appointed Ibu Nazariah as co-ordinator of the women's farming groups, with the specific responsibility of establishing and managing the program. During these years, Nazariah has been assisted by volunteers from Australian Youth Ambassadors for Development, and also by an increasing number of local extension staff who provide the day to day support to the groups. In 3 years, the total number of participants has grown from 60 to more than 700 women. The programme's credibility is reinforced by its training and

communication activities, and by a regular interaction with the local staff. Some groups are now financially independent and act as hubs for the demonstration and dissemination of new ideas.

The most interesting observation, however, is that the programme has evolved into an informal network of women farmers and advisory staff, who maintain contact through exchange visits and farmer forums. A meeting in July 2011 invited farmers and representatives of the government and of a group of NGOs that support or work with women to discuss the establishment of a Women in Agriculture Network in Aceh, following similar examples in Australia and Papua New Guinea. We agreed on the goals and structure of the proposed network, and started working to formally establish it.

From isolation to leadership

Immediately after the tsunami, the focus of most programmes was on soil rehabilitation and agricultural recovery. Working in the more accessible parts of Aceh, we rarely saw the impacts of the civil conflict that lasted nearly 30 years. The impact on infrastructure has been reported, but the social and psychological impacts are rarely mentioned. Visiting some women's farming groups established in the more isolated parts of Aceh, we began to see what happened and understand its impact. Social isolation and a limited access to social services are some of the lasting effects of the conflict in Aceh. Rural networks were affected by the loss of life and displacement, and in some cases farming ceased altogether because of the difficulties and danger of working in the fields. The access to technical assistance and resources like seed remained difficult for many rural villages.

Comprehensive strategies to develop community-based programmes are crucial to meeting the challenges of an estimated total of 600,000 people displaced by the conflict. The women farmer programme meets some of the needs of local communities, providing income generating activities and promoting communication and co-operation within and between villages.

Whilst not all groups in the women farmers programme are situated in former conflict-affected areas, the social contribution of our communication and co-operation efforts is easily recognised as the main benefit by the Aceh women. The group farming activities provide a focus for social interaction which is often missing in the villages. In former conflict zones, women spoke of years of remaining isolated in their homes, only leaving when deemed safe to work in the rice fields. Coming together as a group has provided a renewal of village life, and a good opportunity to work together and help each other deal with past difficulties.

The programme not only addresses the isolation and needs of women farmers, but also recognises that poorly resourced advisory staff struggle to obtain the necessary knowledge, training and experience to help rural farmers in Aceh. A "training of trainers" programme in soils, crop nutrition, pest and diseases, group dynamics and financial management is spreading knowledge and technical skills to advisory staff and members of the established as well as the new groups.

The need for leadership training was identified as a number one priority at the Second Women Farmers' forum held in 2010 in Bireuen. Groups with strong leadership have taken advantage of opportunities to approach local governments and businesses for support as they expand their activities, encouraging their sustainability as a group. Not surprisingly, the more organised groups tend to be situated closer to the urban areas and members have a higher level of education. But the exchange visits that have become a regular activity provide an opportunity for all groups, like those made up of young conflict widows, or those established in the new post-tsunami communities along the west coast, to learn from the more established groups.

Forming new networks, strengthening old ones

The women farmer's program in Aceh has been successful because there is a specific purpose in all group activities, and these activities provide specific benefits for the women, their families and communities. Equally important is that long term support has been provided, addressing the needs and interests of the women, and local capacities have been strengthened. An emphasis on creating links to the education, health and nutrition initiatives of the local agencies has also strengthened the interaction with other networks. Without excluding men, a specific focus on women empowers participants, and ensures that ownership and development of the Women in Agriculture programme remains with women.

A network for women farmers in Aceh has started. It may or may not develop into a formally recognised network, but it is already having a positive impact, and it may help extend the benefits currently enjoyed by the women farmers groups to other parts of Aceh, especially to isolated hinterland communities that are still struggling to come to terms with the impacts of the conflict.

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Transforming quietly

What India can learn from a grassroots land reform movement in Brazil

Bina Agarwal

The international dignitaries who left Rio de Janeiro soon after the UN Earth summit missed a remarkable grassroots movement seeking to transform rural Brazil into a more equitable and sustainable economy. I stayed on for four days, travelling 1,300 kilometres in the state of Minas Gerais with a group of Brazilian agronomists. We went to small farmer settlements whose emergence embodies both land reform and agroecology. A holistic approach to farming, agroecology uses low chemical, biodiverse agriculture to regenerate soils, increase productivity and provide food sufficiency.

In the four communities we visited, landless families have sought to acquire land in diverse ways. A common method is to occupy land they have identified as “not serving its social function” (a category recognised by the Brazilian Constitution), and to pressure the government to legalise their claims. The land identified typically belongs to large farmers. This method was honed by the MST (the Rural Landless Workers’ Movement) founded in 1985. To date, by MST figures, 3.7 lakh families have acquired over 7.8 million hectares (ha) this way. Another method by which people, typically sharecroppers, acquire land is to buy it through government-subsidised credit, either directly from large landowners or from the government, which buys such land and allows the landless to purchase it at nominal prices.

Our first visit was to an MST camp where 120 families have been squatting near the roadside for two years and are claiming rights to a large farm nearby. They were farm labourers, construction workers, guards, drivers or simply the unemployed, bound by the dream of a better life: “We don’t want an employer, we want autonomy,” they said. The camp, albeit makeshift and without electricity, was neat, and the toilets were remarkably clean. The families had formed six groups. Each undertakes camp work on one weekday. The full camp meets on the seventh day. A kitchen garden supplements daily needs. Technically the camp is illegal but the government (ambiguously) gives them occasional bags of rice, black beans and fruit, under its “zero misery” policy. Some camps get early settlement; others have waited 15-16 years. Living there takes courage, tenacity, and hope.

In contrast, the 22 families of Padre Jesus in Espera Feliz municipality, which we visited next, became owner-cultivators from sharecroppers by buying land through cheap government loans. Settled on 120 ha, each family owns 5-6 ha. A black farmer who played host to us owns 6 ha jointly with his wife. He had

moved seven times in three years, but now has a home. These farmers eschew pesticides but buy fertilisers together and collectively harvest their coffee. They said: “When we conquer the land, we not only free ourselves from bondage, we also free the land of toxic chemicals with agroecology.” In just two years, these families of diverse ethnic and racial origins, had created a striking sense of community.

Next we visited a settlement in Araponga municipality. Most families had left sharecropping and bought land (6-12 ha) jointly with spouses through loans from friends. They told us: “There is now a labour shortage here. Big farmers are upset because we no longer harvest their coffee. The best sharecroppers have their own land. We harvest coffee together. We have also built a school for agroecology with help from the federal government. Ours is a ‘solidarity economy’.”

Our illuminating journey ended with a visit to Visconde do Rio Branco municipality where the settled 30 families came from various MST camps. Many now own a mix of forest, pasture and crop land. They grow multiple crops, supply vegetables for the National School Feeding Programme, and have a flourishing dairy economy.

Brazil has vast land resources relative to its population, but also vast inequalities (3.4 per cent of holdings account for 56 per cent of owned farm area). Many landless families await land access, but especially since the 1990s this bottom-up land reform has transformed thousands of lives. And the spread of ecological farming is regenerating the soil. Travelling in rural Brazil is also a pleasure, given its superb roads, clean small towns and villages and sanitary toilets – even makeshift ones in squatter camps. India can learn much from this.

Beyond Rio+20 and its international (dis)agreements, it is these country-specific efforts that spell hope for sustainable and green development.

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We are organised like a pyramid

Laura Eggens

As a farmer, the newly appointed FAO Special Ambassador for Co-operatives, Elisabeth Atangana, is familiar with farmers' organisations at many different levels. She is president of the National Dialogue of Peasant Organizations in her native country, Cameroon (CNOP-CAM), of the Subregional Platform of Peasant Organizations of Central Africa (PROPAC) and of the Pan-African Farmers' Organisation (PAFO). She has played an active role in the creation and growth of these organisations. In addition, she is one of the two co-ordinators of the More and Better Network, she is the African representative in the World Consultative Committee of the campaign for the International Year of Family Farming, and she owns a banana, vegetable and pig farm 30 kilometres from Yaounde, Cameroon's capital.



In the international arena, at events like Rio+20, Elisabeth Atangana is an active representative of African farmers. She voices farmers' concerns, and returns home to inform farmers about global debates. "Villagers then get to know about Rio+20," she says. "We are organised like a pyramid, from the pan-African level to the local level. At the local level, we put our priorities together in a strategic plan. At a national level, for example in Cameroon, the national organisation CNOP-CAM gathers all its members to discuss these local priorities. Then the national strategic plans are discussed at a regional level, and the common priorities for each region are discussed in PAFO. As a result, all the issues discussed in PAFO are rooted in local level concerns. Of course, PAFO cannot solve every problem on the African continent, so we try to tackle only common continental issues. But these are all built on local realities."

How do you work within a Pan-African, regional, national and a local level?

We started very small, at the level of the village, 35 years ago. Now we are at the Pan-African level. Myself, I still try to go to local meetings as much as I can. I believe it is important to keep this link, with communication channels going up and down. We bring back information from the regional and national level back to local farmers' organisations. We talk about the problems emerging from national and international trade agreements, for example, or about the need for more investments in agriculture. And then it is not always easy to find a common vision for an entire continent. Some countries, like South Africa, have many large farms, while West and Central African countries have a large number of small farms. Different systems of production mean different interests, and consolidating them in one voice is challenging. However, we try to manage this by using a democratic approach.

How did this start?

Traditionally, in Africa, we have a culture of solidarity. In Cameroon, at the level of the village, small groups have always come together to collectively solve common issues like water scarcity, or jointly support production. These self-help groups were strengthened from within when the government stopped supporting small-scale production at the time of the different Structural Adjustment Programmes. It was farmers who took the initiative, with the support of some NGOs and sometimes from the local authorities. When we realised that it is difficult for one group at

the local level to discuss issues at a national level, many local leaders [including herself – ed.] came together and discussed the creation of an umbrella organisation who could speak to the government with one voice. Getting local organisations together also helped to compare local problems and solutions nationally and to start learning from each other in this way.

And it all grew from the local level to the pan-African level...

Our need for creating regional-level organisations in Africa grew after 2000, with the creation of NEPAD and a new food security agenda promoted by international institutions at that time, as well as with the development of the Economic Partnership Agreements (EPAs): the free trade agreements negotiated between the European Union and the ACP countries. These were big issues, where the needs of family farmers needed to be defended at an international level. With the support of IFAD and FAO, five regional African farmers' organisations were formed. These organisations then decided to build a strong international organisation, which led to the establishment of PAFO. It was great to be part of this whole process.

What were challenges that you encountered in this process?

Initially we did not have funds to travel through the country to connect local leaders and identify existing organisations. We had to find resources for this locally. Only in 2000 were we able to get donor funding for the first National Farmers' Organisation Forum. Another problem we encountered was a political one. Local elites feared that our involvement in their communities meant that we wanted political power. To prevent this from becoming a problem, we made sure when entering a village to look for chiefs and start a dialogue, explaining to them that the purpose of creating self-help groups is not to gain political power, but to help farmers help themselves.

Do women and youth face specific challenges in these different levels of farmers' organisations?

Including everyone is not simple. To be able to participate fully, women and youth need education and training to be able to translate their ideas or formulate their position. Therefore, it is very important that we strengthen the leadership capacities of women and youth. Secondly, we need to create a space for them to dialogue with decision makers, because in this way they can confront the decision maker with the concerns and needs of the poorest segments of the population.

What role can farmers' organisations play in opening these spaces for dialogue?

At a regional level, with PROPAC, we help to structure national organisations, and at a national level, with CNOP-CAM, we help to structure the local member organisations. We offer institutional support, help them in mobilising resources and building capacities for leadership – helping leaders engage in dialogue with

communities. Which organisations we help depends on the demand. It is important that farmers themselves ask for support, after which we can help them to identify what training is necessary. Training of farmers is done at different levels. CNOP-CAM trains farmers' organisations in production methods, but also in the management of groups, lobbying, and in forming partnerships. My local organisation, a member of CNOP-CAM, has built training centres in Cameroon to train youth. They alternate between school and the farm: they come to school for one or two weeks, after which they return to the village to exchange with the farmers. Now we have 75 young people trained not only to be farmers, but also to be leaders for change. Youth are asking to change the way we see agriculture: they want to give agriculture an image of entrepreneurship and professionalism.

In CNOP-CAM, we also link organisations with other member organisations, as well as with other stakeholders like NGOs, international organisations, government offices, or local communities. We also started to create negotiation and advocacy spaces. We have the support of the More and Better Network, for example, for increasing dialogue, enhancing the capacities of farmers' organisations, increasing the financing options and investment possibilities in agriculture. As a farmers' organisation, we establish collaboration with other sectors to open space the dialogue with decision makers. All stakeholders, including NGOs or the private sector, have a role to play.

Is there more space now for farmers' organisations to engage in this dialogue?

Yes, definitely. In Africa, for example, we built the PAFO platform to be able to express a common voice. It is necessary to speak with a common voice to decision makers so that we can be understood, so they can take our preoccupations into consideration. By starting from the local collectivity, we increase farmers' voices, including those of women and youth. This is seen in our programmes which, for example, reinforce the capacity of women to be able to participate in the discussions going on about climate change, so that their needs can be taken into consideration by policy makers.

Having gone to Rio, what local concerns did you want to address?

One of the main concerns that I brought to Rio+20 included the need to mobilise women and increase their autonomy: help them to access appropriate technologies and to manage their farms, soil and seeds. It is important that we teach women and youth, in a professional manner, how to conserve local and traditional seeds. Another issue that I wanted to highlight is that of land: we need to be able to secure and conserve land. I also believe that we should consider the capacity of the population to be more resilient to climate change. It is important to invest in family farmers, so that they can continue to ensure food security at a local level and at the same time increase their revenue and develop employment opportunities.

Do you feel that you have been heard?

I can say that there is some positive evolution. But more is needed. That is why we still have a job to do. It is important that investments in small-scale farmers' organisations and family farming increase, so we can train more people and dialogue with government and decision makers. We also need specific financing tools, like local managed credit schemes, which can help farmers. Direct support to farmers is very important and is needed now. We grew from a local level to a Pan-African level. I see this as a very important evolution. We did not have support before, we managed it all by ourselves. But now we need support so that we can increase our activities, supporting more people in an autonomous way. This is why we need the support of those who respect our vision. And our vision is sustainable agriculture.

You were appointed FAO's Special Ambassador for Co-operatives. What do you hope to achieve in this role?

I hope for a greater recognition of what farmers' organisations are doing within the UN institutions. I have proposed a plan of action, which I can describe in more detail once it has been approved. In general, I hope to promote co-operatives at different levels. I believe that cooperatives are important tools in terms of social, economic and environmental development.

You are actively involved in the campaign for the International Year of Family Farming. What can farmers' organisations do?

I have been part of the IYFF campaign from the beginning. Farmers' organisations need to mobilise. They need to identify the needs of farmers: organise themselves or strengthen existing organisations to bring these issues together. Only then will they have the power to negotiate with governments. My hope is that the celebration of the IYFF will help more and more people recognise the role of family farmers. Family farmers need investments, training, capacity building, and resources, which can all help farmers to change the environment. We need to sensitise governments to pay attention to the fact that more than 70% of the population is directly related to farming and agriculture, and that farmers play a very important role in terms of a country's food sovereignty and poverty alleviation.

PAFO is made up of five regional farmers' organizations: the network of Farmers and Agricultural Producers' Organizations of West Africa (ROPPA), the Southern African Confederation of Agricultural Unions (SACAU), the East African Farmers Federation (EAFF), the Maghrebian Farmers Union (UMAGRI) and the Sub-regional Platform of Farmers Organizations in Central Africa (PROPAC).

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Combating desertification

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Farmers and other inhabitants of dryland areas are increasingly getting affected by poverty and food shortages due to deforestation, soil erosion, loss of soil fertility and biodiversity, and climate changes. These have been the direct effects of the policies, practices being practiced over the years, leading to both depletion and increased abuse of natural resources.

Over 250 million people are directly affected by desertification, and about one billion people in over one hundred countries are at risk. These people include many of the world's poorest and the most marginalized communities. (UNCCD). According to the fourth World Water Development Report (WWDR4) drylands and deserts make up over 41% of the Earth and are highly vulnerable to desertification and water shortages.

Efforts are being made by government agencies, NGOs, research and academic institutions, farmers in various parts of the country to address the issue, most often with community support. NGOs have been promoting desertification control by actively organising the local communities in activities ranging from watershed development, soil and water conservation, tree growing etc. How did they go about

arresting the decline and changing the scenario? What has been the impact of their efforts? Very often these efforts have been carried out in remote locations too!

At the global level too, the International Convention on Desertification is supported by 193 countries and the European Union. The Convention has come out with a 10-year Strategic Plan wherein the Parties have laid out a clear vision to reverse and prevent desertification and land degradation. Many affected countries have started the process of aligning their national action programmes to this strategy.

For the December 2012 issue of the LEISA INDIA, we invite articles which deal with a wide diversity of subjects related to combating desertification such as: participatory formulation of national action plans, strengthening of local institutions, participatory learning, monitoring and evaluation, successful approaches and actions to combat desertification and effective strategies for up-scaling. Articles on successful actions could deal with: micro-watershed management, land use planning, water and soil conservation, greening the drylands, livestock and rangeland management, crop diversification, development of integrated systems, indigenous knowledge and farmer or research innovations.

Please send your articles for the December issue of LEISA India to leisaindia@yahoo.co.in before 31st October, 2012.



Linking to markets

A case of small scale sorghum farmers group in China

Sorghum harvest – linking to new markets

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Market access is one of the most critical linkages in farming business for the rural farm households; it is also evident that they are a prerequisite for enhancing agriculture-based economic growth and increasing rural incomes. Rural incomes will not be substantially increased by exclusive emphasis on subsistence food crop production; rather, more market-oriented production systems are needed. These require intensification of agricultural production systems, increased commercialization and specialization of production. The innovative marketing linkages through contract farming have yielded positive results.

In China, the markets are growing rapidly in the areas close to urban centers, with relatively dense populations, and in higher-potential areas where levels of agricultural production and surpluses are greater. In areas that are away from the urban areas, remote, have weak infrastructure, less populated and have low agricultural potential, the process of market development has been far slower. Furthermore, different types of market relations have developed for different types of crops. The food crop markets being typically characterized by informal arrangements between producers and small-scale intermediaries, and export crop markets by 'formal' relations between producers and agro-processing firms which in case also supply inputs and provides production support services. In many countries, export crop markets have emerged faster and more smoothly than food crop markets.

In this rapidly evolving context, the policy and institutional frameworks established by the governments of developing

countries have not been consistently supportive of private-sector-led market development. At the national level, improved farmer-to market linkages have been typically constrained by, for example, an overly restrictive legal framework for farmer group registration, the lack of an effective legal framework for contract enforcement, or by excessive licensing requirements for traders.

The small scale farmers in China are also constrained with regard to the access and operation in the markets. Markets no longer have fixed nominal prices. Instead, new commercial relations must be struck with a myriad of suppliers and buyers, and prices, whether for selling produce or purchasing inputs, are now largely negotiated. Most of the small scale farmers especially those trying to produce market staples in remote areas, it has created major problems. The issue of market access may usefully be considered according to three dimensions: physical access to markets; structure of the markets; and producers' lack of skills, information and organization.

The practice of contract farming is becoming increasingly common in various developing countries. The process involves buyers/end users/exporters/ industrial users entering into an agreement with farmers/group of farmers/farmers associations to buy a certain quantity of a product at a specific price. Such arrangements, for example, exist for sorghum in China, for bananas in Samoa, squash in Tonga, and root crops in Vanuatu.

This paper presents the experiences of contract farming model in China with alcohol industry as an example of inclusive market oriented development. The project was designed to support small-scale sorghum producers in enhancing production and accessing markets are interesting and have been able to address market constraints and help farmers in responding to new opportunities resulting in better incomes. The project initiatives were funded by CFC, The Netherlands.

The project

The project is trying to improve the farmers access to markets, and in this context, it is seeking ways to: a) effectively increase the market share of the rural poor and improve the terms in which they participate in markets; b) achieve greater market access and market development for the rural poor.

The project in China is led by Sorghum Research Institute (SRI) of Liaoning Academy of Agricultural Sciences (LAAS), Liaoning province, PR China. The project developed on coalition approach mode and the important collaborating partners of the project include

- Liaoning Green Fangshan Organic Foodstuffs Co. Ltd.
- Jinzhou Jingchao Food and Mill Co. Ltd.
- Jinzhou Daoguang 25 Liquor Making Groups
- Heishan Xinhe Food and Oil Trade Co. Ltd
- Jinzhou Branch, Agricultural Bank of China
- Xiaodong Credit Agency Heishan County
- Xiaodong Means of Production Company
- Liangfeng Seed Company of LAAS

Improved farmer-to market linkages have been typically constrained by an overly restrictive legal framework for farmer group registration, the lack of an effective legal framework for contract enforcement, or by excessive licensing requirements for traders.

Based on the baseline survey of project area, the constraints faced by the small-scale sorghum farmers in accessing the inputs, credit and market studied by Sorghum Research Institute, Shenyang, were documented. The contract farming model developed in the project was proposed on the basis of the extensive study of these constraints and identifying possible innovations that can be suggested and used in identifying appropriate input supply and marketing systems suitable to the farmers.

The model

A contract farming model was developed to suit the requirements of the sorghum farming community by involving coalition partners to have holistic approach for improving the livelihoods of sorghum farmers in Heishan and Benninin county villages.

Based on the findings of the baseline survey and based on the experiences of initial two years and in depth understanding of the constraints, marketing value chain strategies were planned with the project partners. The aim was to develop a marketing model to increase the production and provide linkage to alcohol industry.

The contract farming model sketch (Fig.1 on p. 22) specified the roles and responsibilities of the public sector (SRI) and private sector (seed, oil, food, and alcohol industries) members involved in the process. ICRISAT is the project implementation agency (PIA) and the Sorghum Research Institute (SRI) the lead partner in the project implementation facilitated the adoption of the model by the company and the farmers. Both the organizations play complementary roles in developing and implementing the contract farming model in China.

Adoption of the model

SRI facilitated the adoption of the model by the alcohol company and the farmers. The alcohol company played an important role in liaison with SRI in implementing the contract farming model for the benefit of the farmers and the company in a win-win mode.

Through the project, SRI was able to bring the sorghum farmers together into an association and build their capacities for joint action. Several meetings, exposure visits, field demonstrations, trainings, group discussions were organized for the benefits of the farmers. The farmers' association is given special inputs in managing the financial accounts and decision making processes. On-farm advice and field support was also extended to the farmers groups during the entire cropping season.

Training and capacity building activities have been cross cutting themes and they aimed at enhancing the skills of farmer groups in

crop production, selection and use of improved seed/fertilizer/chemical, demonstration of improved production technologies, accessing institutional credit, bulking, storing, grading and marketing of farm produce within the target regions. The above activities were conducted in collaboration with partners.

Based on SRI research and suggestion of cultivars, the alcohol company places prior purchase order for required quantity of seed. SRI supply seeds of high yielding cultivars suitable for alcohol extraction. The company takes up responsibility of seed distributions to project farmers. The alcohol company provides good quality and required quantity seed material and other inputs such as fertilizers and the plant protection chemicals to the farmers on timely basis. The company will also enter into buy-back agreement with farmers association to supply inputs (seeds, fertilizer, pesticide) at reasonable price and minimum price for procuring the produce.

Technical on-station and on-farm advice and field support in identifying and controlling pest and diseases, improved production technologies like IPM, INM is extended to the farmer groups during the entire cropping season.

Farmers are advised by SRI on timely harvesting (physiological maturity) and drying of grain to keep up the quality of the produce. The farmers will be guided for grading and bulking of the produce as per requirement of alcohol industry. The systems of bulking and grading for better quality of grain were introduced to the farmers and the importance, advantages and the requirements of grading, bulking and storing were explained through training programs.

Storage in the villages is one of the major constraints that exert pressure on the farmers to sell the produce soon after the harvest of the crops. Farmers seldom in these villages used the storage facilities of the private sector as they are far away and the transaction cost of storing and selling small quantities are high. On the other hand, industrial users demand bulk quantities of grain in a single transaction. To overcome these constraints, under the project dialogues with the private sector, the storage structure was developed jointly by the company and the farmers association.

Apart from the storage structure, a drier for the sorghum ear head drying has been installed in the central village to help the farmer

to dry the sorghum ear heads after the harvest to reduce the moisture content of the grain upto 10-12% to hamper the growth of mold fungi.

Price commitment

The company at the time of entering into the contract with the farmers will also quote a minimum price for procuring the sorghum grain from the farmers. Interesting point to note here is that if the market prices of sorghum go up in the market at the time of the sale of the produce by the farmer, the company will pay the increased price to the farmers as per market price and not the pre agreed price. On the contrary, if the market prices for sorghum fall below that of the agreed price, the company will pay the pre agreed price to the farmers. This is one reason why the farmers were interested in entering into the contract agreement with the company.

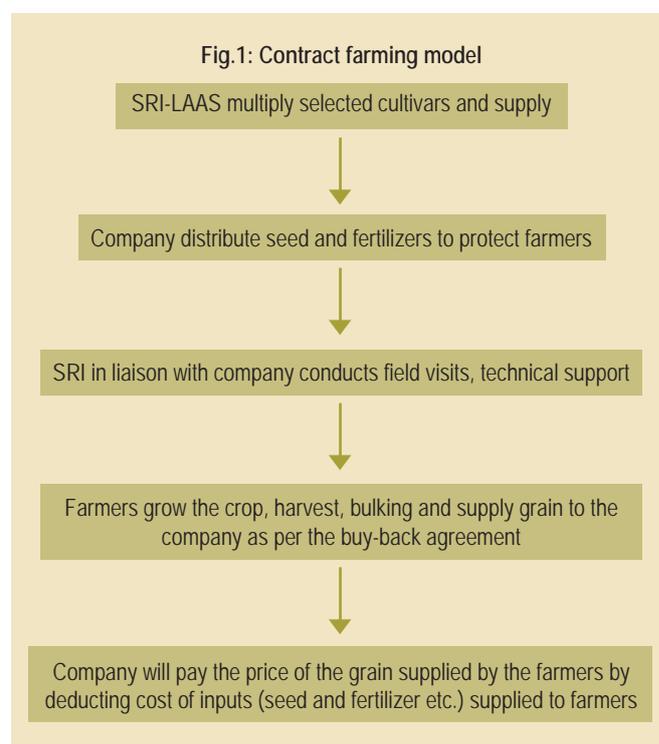


Table 1: Details of grain production, quantity marketed and price realized

Year	Total production (tons)	Quantity of grain Sold in Free marketing (tons)	Quantity of grain sold in Contract marketing (tons)	Average price per kg grain (USD/kg)		Percent price increase over market
				Market price	Project farmers	
2005	874.5	567.5	232.0	0.146	0.175	19.9
2006	990.0	661.0	254.0	0.161	0.182	13.0
2007	3900.0	2741.5	1050.0	0.204	0.226	10.8
2008	4177.0	1412.0	2661.0	0.199	0.219	10.1

Note: 1 US Dollar = 6.85 RMB

The company organizes for the bulk purchase of the grain from the farmers at the mutually agreed price at the village.

Results

The efforts under the project for contract farming have yielded good results. These communities have seen an increase in the productivity at the farm level due to adoption of best cultivars and cultivation practices and are also related to the development of new markets for the sorghum farmers. The remote communities in low-potential areas, or households lacking adequate levels of assets and organization, technical know-how have been benefited by the project interventions.

The farmers and partners have gained practical experience in adopting the farming model with the small scale farmers groups. The lessons learnt in the project in assisting poor rural producers in accessing markets more effectively through farmers groups and contract farming have yielded results in addressing production and market constraints by the small scale farmers and helped the farmers in enabling them to respond to new opportunities and increase their production and income levels through better markets (Table 1 on p. 22) apart from helping them to confront and respond to the unpredictable and inequitable markets.

Farmers realized several other benefits. Farmers got an extra income of about 58 USD/ha from selling glumes to Sorghum pigment industry. They also got 5-10% discount on seed price and 5% of discount on fertilizer price. There was less seed usage per hectare (17% decrease) and reduction in fertilizer usage by 20-25% owing to improved production technologies. All these together have reduced their production costs. On the other hand,

farmers got higher price (13-20%) for grain as compared to open market price.

Conclusion

The project directly assisted smallholder producers in understanding better how the contract farming model works, how to gear their production to the demands of potential buyers and how to access such markets. Key to achieving this is the support provided to them to form commercially oriented organizations (farmers associations) and training them so as to enable them to develop the understanding and skills required to interact effectively with markets. The innovative contract farming model was a holistic approach encompassing production enhancement aspects, capacity building and assured market linkage. This helped in overcoming fragmented production system, improve the quality and competitiveness and raise the income of rural households.

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Call for Articles

SRI: A scaling up success

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The System of Rice Intensification (SRI) is a simple, low cost approach that is quietly transforming rice production around the world. It is now practiced by farmers in many countries. SRI is a set of practices based on single, widely-spaced, early transplants grown under an alternate wet-and-dry water regime, and preferably with organic fertilizers. Together, these practices lead to stronger plants and to systems which are much more water-efficient, especially when compared to rice grown under conventional methods. It is claimed to lead to a doubling of yields and to halving the use of water. Even though many scientists question it, SRI has spread rapidly among farmers, and many more are enjoying higher yields every year.

The March 2013 issue of LEISA India will look at this evident success, and explore the ways in which these practices have spread, from farmer to farmer, from country to country, and also from rice to other crops. We welcome contributions that unravel the "mystery" behind SRI. What extension or communication approaches are followed? How are

farmers adapting it to their local context and conditions? What is the role of civil societies, scientists, researchers and the government in the promotion and scaling up of SRI? Building on the SRI example, we will also look at the political and institutional support which is needed to ensure that farmers' innovations, and success, receive the global recognition they deserve.

Send us your contributions! Please visit our website and leave your suggestions, comments or ideas for this issue. Articles for the March 2013 issue of LEISA India should be sent to the Editor, LEISA India at leisaindia@yahoo.co.in before 15 January, 2013.

Producer groups

Building blocks of democratic institutions

Sanat Mishra and Burton E. Swanson

Agricultural extension systems in both developed and developing countries have successfully increased the technical, economic, social, leadership skills and knowledge of farmers by helping them organize into producer and farmer groups. A new agricultural extension model in India which followed such a decentralized, bottom-up group approach, not only improved the quality of extension services being provided to the rural poor, but also encouraged full accountability and transparency within the extension system.

Orissa is the second poorest state in India, with over 45% of its 37 million people living in poverty (i.e. < \$1/day). Orissa is a very rural state with about 85% of the population still living in rural areas and only about 25% of rural households have access to electricity.

The extension model used to organize producer group in four districts (Khurda, Koraput, Ganjam and Sambalpur) in the State of Orissa was introduced and pilot tested through the Innovations in Technology Dissemination (ITD) component of the World Bank financed National Agricultural Technology Project (NATP) funded by the World Bank during 1998-2005. First, an Agricultural Technology Management Agency (ATMA) was established as an autonomous registered society in each district to serve as the focal institution for integrating and coordinating agricultural research and extension activities across the Krishi Vigyan Kendra (KVKs or Farm Science Centers) and line departments (agriculture, horticulture, livestock, fisheries, and so forth) within each district.

One key operational innovation used by each ATMA was the organization and use of “farmer interest and self-help groups” to both organize and target extension programs around the specific needs and economic opportunities of the different categories of farm households. Prior to the process of institutionalizing ATMAs at district level, the agriculture extension system in India primarily focused on technology transfer for the major staple food crops (i.e. cereals) to increase the productivity (yields) of these crops. Other issues relating to the intensification and/or diversification of the farming systems to increase farm household income (i.e. market-driven extension) were not considered their responsibility. The rationale for introducing the ATMA model was to 1) organize

different categories of farmers into groups, 2) determine their interests and emerging market opportunities for different high-value crops, livestock or other products, and then 3) to integrate the knowledge and skills of the different line departments (agriculture, horticulture, animal husbandry, etc.) and research, to enable these groups in pursuing promising new enterprises that would increase farm household income, especially among the rural poor.

The complexity of this process was not simple, given the low literacy rates among small scale farm households, especially rural women (< 25%), as well as the dominant role of “traders” in controlling local agricultural markets. Therefore, the problem being addressed was whether agricultural extension workers could successfully organize small-scale farmers into groups, help them start up new production systems or enterprises and, thereby, increase their farm income.

The objective of this paper is to explain how the agricultural extension system in Orissa successfully organized different types of farmer organizations (both men and women) to teach the necessary technical, economic and social skills needed to enable these poor farm households to increase farm income, reduce malnutrition, and increase their access to education.

Framework and methods

Starting in 1998, the first Agricultural Technology Management Agency (ATMA) was registered in Khurda district, followed by the introduction of ATMAs into three other districts. All four ATMAs continued to operate until June 2005, after which donor funding ended.

Institutionally, ATMAs were established as *registered societies* but they were staffed by a senior extension official from the Department of Agriculture (either as the ATMA Director or Deputy Director) and from a State Agricultural University (also, as either the ATMA Director or Deputy Director). The purpose was to combine the *flexibility* of a Nongovernment Organization (NGO), since ATMAs were officially a registered society with the *credibility* of government agencies.

This new *bottom-up* management structure formally institutionalized farmer participation in the decision-making process within the ATMA Governing Board (GB) at district level and through Farmer Advisory Committee (FAC) at block level. Initially, these FAC members were selected by the block extension staff. However, after the FIGs and SHGs were organized at village level, these emerging leaders began representing these commodity groups and other enterprises at both the block and district levels.

This new management structure began the process of empowering otherwise small and marginal farmers, including rural women, ethnic minorities and tribal groups.

These FIGs and SHGs were voluntary, self-governing, unregistered societies of farmers and/or farmwomen, formed at the village level for the purpose of economic cooperation to improve and sustain their resource base (social, economic and natural). Each group consisted of 15-20 members, mostly from same village with both harmonious (likeminded/social parity) and homogeneous (economic parity) backgrounds.

Methods and stages of group formation

The extension system in Orissa began pilot-testing this new decentralized, participatory, market-driven extension strategy in four districts to determine if small-scale farm households, including farm women, could diversify into different types of high-value crops and products and, thereby, increase farm income. It was determined that farmers must organize into different types of producer groups to improve their access to urban markets and to eliminate the need for local traders.

The procedures carried out by the local extension staff, working in collaboration with NGOs, in developing these FIGs and SHGs is outlined in Table 1 on p. 26. This framework shows the steps, timeframe, how these activities were implemented and the performance indicators that were used to measure progress in organizing each group. Initially, this strategy was first implemented by local (NGOs) who helped organize interested farmers and farm women into different types of FIGs or SHGs. Once organized, then the local extension staff began working with these different FIGs or SHGs to determine the most suitable high-value crops or products that could be produced locally, given local agro-ecological conditions (e.g. irrigated or rainfed), proximity to markets, transportation (most rural roads are unpaved and are impassable during monsoons) and gender (men and women traditionally prefer different products).

After the initial FIGs and SHGs were organized and were working with the local extension staff, then many of these emerging farm leaders began networking with other farm households, especially in other communities, thus, increasing the total number of FIGs and SHGs. As a result, these expanding producer groups began working together to form new producer associations (PAs) at the sub-district level, so they could further expand their access to markets into larger towns and cities; thereby, securing higher prices and further increasing farm income.

Experiences in the four ATMA districts demonstrated that resource poor farmers can pool their labor and other resources to pursue common objectives. These groups were formed around a commonality of interest as they undertook specific agro-enterprises; thereby, increasing access to inputs, technologies, credit and markets. Initially, prospective group members would meet formally on a scheduled day (mostly on a fortnightly or monthly basis) and they would contribute a nominal sum towards group membership activities. With support and encouragement from Block Technology Team (BTT) and Farmers' Advisory Committee

The sense of full farmer engagement in this newly integrated extension system gave a clear indication of the benefit of restructuring the extension system.

(FAC), these groups would soon begin developing their own procedures to gain access to needed technical and management skills, as well as in gaining access to inputs, credit and marketing services for a particular commodity. The BTTs would begin by introducing a suitable or manageable technological package that reflected several key factors, such as the size of farms, soil and water conditions, level of income and access to markets. Effective backward and forward linkages were worked out before initiating these activities. Also, the groups were strongly encouraged to liaise with banks, cooperatives and other agencies to increase their access to micro-credit, inputs, subsidies and so forth. The GB of each ATMA took the lead in helping establish these linkages.

Operational procedures used to identify and address farmer problems and priorities

A major objective of the NATP project was to increase farm income and improve rural livelihoods, especially among small-scale and women farmers. Therefore, establishment of the ATMAs at district level, using a bottom-up planning process and integrating both research and the line departments was designed to help refocus extension activities on those program areas of direct interest to small-scale and women farmers at both the block and district levels.

The first step in shifting the focus of the extension system towards increasing farm incomes and improving rural livelihoods involved having senior research and extension personnel at the district level carry out a Participatory Rural Appraisal (PRA) in each district. Once the PRA was completed, then these research-extension teams prepared a preliminary Strategic Research & Extension Plan (SREP). These SREPs were prepared at the beginning of the project and were based on a) different agro-ecological conditions within each district, b) possible market opportunities for different high value crop and livestock products, c) the identification of innovative farmers who were already successfully producing and marketing different high-value products, and d) an assessment of the different types of crops or other enterprises that were of direct interest to different categories of farmers, including rural women. The goal was to prepare a preliminary plan or blue print that would outline how the district level agricultural research and extension system would work together in serving the needs of smallscale and women farmers during the next 3-5 years. During the 3rd year of project implementation, this SREP was revised and fine-tuned to reflect what had been learned during the first two years of operations.

Similarly, at block or sub-division level, prior to each season (i.e. Kharif, which runs from April to September and Rabi which runs from October to March), Block Action Plans were prepared for each block and then these BAPs were collated at the district level in developing a comprehensive Annual Action Plan for the district.

These BAPs were reviewed and approved by the FAC members, representing the different FIGs and SHGs at the block level and then submitted to ATMA GB for review, approval and funding.

This process led to emergence of overarching issues affecting small and marginal farmers, including rural women, which were prevalent in each of the four districts. For example, the lack of bargaining capacity among small-scale and women farmers; lack of market accessibility, especially with small levels of production; lack of access to new technologies for specific high-value crops/products; and their lack of capacity to intensify and/or diversify their farming systems, and so forth. Therefore, the BAPs became fundamental documents that outlined the problems and priorities that the different FIGs wished to pursue and this process defined the agenda to be carried out by this more integrated agricultural extension system.

How farmer group leaders were engaged in setting extension priorities

There were 7 or more farmer representatives on each ATMA Governing Board (GB), including at least 30% (i.e. 2-3 representatives) from the major scheduled castes, tribal groups and rural women from within each district. These farmer representatives were selected to institutionalize farmer participation in setting extension priorities, including how program resources should be allocated across the different crop and livestock systems. The ATMA GB provided a platform for all stakeholders within the farming community to participate and to share the ownership over this decision-making process. Similarly at block level, there were generally 8-12 farmer members included on each block-level FAC, who represented the major producer groups in that particular

block. During the first year, some committee members dropped out due to lack of motivation, lack of personal benefit, not being representative of their farming community and/or not being real farm leaders.

Subsequently, a decision was taken by each ATMA GB to drop inactive or uninterested members of these GBs and FACs. For example, if a member failed to attend three consecutive meetings in a row or expressed their lack of interest to continue, then a notice was sent to them terminating their membership from these decision-making bodies. Hence, during the second half of the project, procedures were established to nominate the presidents from these FACs to the ATMA GB on a rotation basis. Similarly, the leaders of village-level producer groups were nominated to serve on these FACs on a rotation basis. Thus, a democratic method of replacing inactive members of these GBs and FACs was established, whereby an active FIG leader had a fair chance to being nominated to serve on a FAC and, subsequently, on the ATMA GB. This facilitated the development of strong farmer organizations with genuine members and it helped reduce political-administrative intrusion into this bottom-up extension management system.

Capacity building support to farmer groups

The provision of effective capacity-building activities to support the development of FIGs and SHGs was a primary factor in bringing about the sustainability of these producer groups. Substantial resources were spent, in terms of manpower, time and funding, to build the capacities of these FIGs during the first year of their development. These different extension activities included awareness campaigns, exposure visits to innovative farmers,

Table 1: Steps in Forming Groups, including Time, Role and Performance Indicators

S.No	Steps in Forming FIG/SHGs	Time Frame	Role of Extension	Performance Indicators
1	Start Up	2 months	Conduct awareness campaigns; village meetings; identify leaders; and mobilize farmer groups	Leader usually takes the initiatives; prospective members meet with each other
2	Firming Up	2-3 months	Exposure visits; interaction within groups; decide on commonality of group interests; develop future course of action; provide information in assessing different agroenterprises	Members contribute a monthly fee; group norms finalized; decide upon agro-enterprise(s) to be undertaken; plan extension programs; determine the availability of micro-credit
3	Setting Up	2 months	Conduct training programs to help groups develop an agroenterprise management plan	Adequacy of knowledge and skills to undertake group activities; selection of work site, develop production plan, a resource mobilisation, determine input needs and a marketing plan.
4	Acting Upon	6 months	Provision of demonstration support; linkages with banks and other developmental programs; handholding during implementation; and conflict resolution	Implementation of Agro-enterprise management plan; refinement of the plan during implementation; and resolve operational bottlenecks
5	Spreading Up	1 year after start up	Revisit the agro-enterprise management plan and suggest changes; extension provides support for one more season	Strengthening of existing agroenterprise and/or to attempt new enterprises and/or to pursue a new implementation strategy
6	Stabilize	2 years after start up	Provide only techno-managerial guidance during BTT-FAC meetings and through routine field visits.	Agro-enterprise(s) emerge as sustainable producer groups at village level and associations at the block/district level

training courses, farmer-scientist interactions, as well as field demonstrations that were carried out by the block extension staff. With support from the ATMA, these FIGs graduated from one level to another, maturing over time as the member gained experience and confidence. Both technological knowledge and managerial skills were key extension inputs. Along with need-based technical backstopping and managerial training courses, like team building, leadership development, conflict resolution, record keeping, training on post-harvest handling and marketing, depending on the product being produced. Within each FIG/SHG group, leaders were identified and provided with the necessary capacity building skills. They, in turn, guided their respective groups in taking up key activities. This approach strengthened the farmer to-farmer linkage and helped multiply the outreach programs of the extension staff.

In addition to these extension interventions, at the state level, 127 additional training courses and 22 workshops were organized to support capacity building activities for FIGs and SHGs in other districts. It should be noted that many of the innovations that were shared with FIG leaders during exposure visits to innovative farmers both within and in other states were subsequently replicated in these project districts. This process helped build the conviction among the participating farmers in this new, bottom-up, participatory, market driven extension system.

Results

A critical factor for diversification, in different parts of each district, is the transition of women's SHGs into FIGs or new producer groups on specific high-value commodities. The range of agroenterprises taken up by both men and women farmers were: paddy seed production, oilseeds (sunflower & groundnut), mushroom cultivation, both broiler and backyard poultry production, dairy, goater, honeybee rearing, floriculture, both in-season and off-season vegetable cultivation, freshwater fish farming and other enterprises, such as vermicomposting. During this 6 year project, nearly 1,400 producer groups were successfully organized in these four districts, covering a wide range of high-value crops and products.

Some of the major high-value crops and other products that were taken up by these small scale and women farmers included dairy (4%), horticulture (27%), fisheries (6%), small ruminants (3%), poultry (3.5%), and beekeeping (1%). As a result of this diversification, these participating farm households increased their average farm income by an average of 6% per year, in comparison to only 1% increase by farmers in non-project districts.

In addition, these farmer groups realised many intangible benefits, such as: risk minimization, community recognition, enhanced social-political status, improved accessibility to new technologies and markets, as well as enhanced bargaining capacity. One of the most significant statements made by one small-scale farmer during interaction with World Bank Mission to the Khurda ATMA on 3-5 May 2004 was the following: *"this endeavour (group formation) has given value and recognition to the otherwise faceless farmers in the milieu"*.

In addition, the delivery of targeted extension programs by the field staff at both the district and block level improved considerably. In addition, FIG/SHG leaders started acting as an "extended arm" of the agricultural extension system, as farmers in other villages were shown how to take on new agro-enterprises by themselves. This innovation in technology dissemination not only improved the quality of extension services being provided to the rural poor, but it also encouraged full accountability and transparency within the extension system.

Conclusions and recommendations

The sense of full farmer engagement in this newly integrated extension system, plus the hundreds of new FIGs and SHGs that were established during this project, gave a clear indication of the benefit of restructuring the extension system. By moving towards a group approach, with farmers being trained and empowered to take on new agro-enterprises generated considerable pride in their achievements. Hence, role of agriculture extension in identifying, developing and promoting new agro-enterprises among these producer groups has been unequivocally confirmed.

It should be noted that agricultural extension systems in both developed (e.g. U.S., Netherlands, France, etc.) and developing countries (China, Ghana, India, Indonesia, etc.) have successfully increased the technical, economic, social and leadership skills and knowledge of farmers by helping them organize into producer and farmer groups. In the process, these farmers share technical and economic information about these different types of crop, livestock and other agro-enterprises. In addition, these farmer organizations become the building blocks of democratic institutions. Therefore, it is recommended that agricultural extension organizations worldwide give priority to helping small-scale and women farmers get organized into producer groups, both to reduce rural poverty and malnutrition, as well as to facilitate the development of democratic institutions.

This is an edited version of the original article "Extension's Role in Organizing Producer Groups: a Case Study from Orissa, India" published in 2009 AIAEE Proceedings of the 25th Annual Meeting, InterContinental San Juan Resort, Puerto Rico.

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Members of a pastoralist organisation in Alwar

Networking for their rights

Aman Singh

Alienation of local communities from the forests and their management has resulted in resource degradation and loss of livelihoods. *Rajasthan Charwaha Vikas Sanghathan*, a people's network is a platform to help tribal communities regain their traditional rights over the forest resources.

Rajasthan has rich pastoralists' heritage and its contribution to the society is immense. They not only rear but maintain excellent indigenous animal genetic resources that adapt very well to drought conditions. These include different breeds of cows, camels and sheep. Communities like the *Raikas*, *Rebaris* and the *Gujjars* are the pastoralists in Rajasthan. While the *Gujjars* are famous for rearing cows and buffaloes, the *Raikas*, *Rebaris* and *Dewasis* are known for raising camels. All these groups in varying degree are directly dependent on local community forests for feed, fuel wood, leaves, honey etc.

The Sariska Tiger Reserve, in Alwar district of Rajasthan is surrounded by more than 300 villages. The reserve is a collection of *Orans* that together has formed a substantial forest tract. Also known as *Devbanis*, these *Orans* or local forests vary in size, from

a hundred to five hundred bighas (about hundred hectares). *Orans* are community conserved forests. Many of these forests have been managed successfully through traditional, religious and cultural practices, safeguarding collective access to a common resource base. The practice of nature conservation as an ancient religious tradition evolved in order to sustain the lives and livelihoods of rural people of Rajasthan.

Increasingly, the local communities have been excluded from the management of their resources. At will, the Forest Department has been enclosing it for plantation, or declaring it as a reserve. In recent years, *Orans* have suffered widespread degeneration. Most importantly, this has also resulted in alienation of local people from the forests.

Rajasthan Charwaha Vikas Sanghathan

The Genesis

KRAPAVIS (Krishi Avam Parishitiki Vikas Sansthan), an NGO in the region piloted a partnership with pastoralists to assist them in legitimising and securing their pastoralist rights in and around Sariska Tiger Reserve.

On 12–13 June 2005, about 40 pastoralists met at the KRAPAVIS centre in Bakhtpura near Alwar to discuss their situation and how to make their voice heard. The meeting can be called historical: it was probably the first ever such meeting to transgress the traditional social boundaries of caste and gender, and was attended by both men and women from different pastoralists groups from Rajasthan. Throughout the meeting, there were calls for unity among Rajasthan's diverse pastoralists communities, and the need for creating a state-level *Sanghathan* (Association). Such a *Sanghathan* would have multiple functions: raising the voice of pastoralists, pressurizing the government to consult pastoralists in policy development, marketing products, protecting local livestock breeds, saving the pastoralists' culture, fighting corruption, developing leadership, saving the environment, and gaining self-confidence.

The meeting culminated in the emergence of a network of the pastoralist community known as the "*Rajasthan Charwaha Vikas Sanghathan*". It is a network, which is primarily owned by the pastoralists for their own development and strengthening of their livelihood systems. Under the guidance of pastoralist leaders, a detailed roadmap was also chalked out for building the association.

Process

The membership to the network is open to all pastoralists. A membership fee of Rs. 20 is collected from each member. There is

Restoring traditional rights of tribal communities will help regulate the forest resources. Involving local people and institutions can form the basis of more 'people-led' forest management systems.

an advisory board at state level that includes voluntary organisations. Presently, there are more than 1000 pastoralists as members of the Association. *Rajasthan Charwaha Vikas Sanghathan* is still an unregistered association and has its district level chapters. Each Chapter has different set of activities to deal with their very local concerns, agendas and issues.

Bringing about a change

The focus of the *Sanghathan* has been on restoration of traditional rights of the pastoralists. These include access to grazing rights and access to water resources on village commons and forest lands. Their main agenda has been promoting sustainable pastoralism in Sariska, through conservation of forest ecosystem by local communities.

The members have been actively raising and reaffirming consciousness of other pastoralists on the fact that there are no more frontier areas to move on. Community discussion on carrying capacity of the forests have been facilitated. They have been building a movement and facilitating exchange of experiences to enhance sustainable use in around the 300 villages of Sariska Tiger Reserve.

Most of the members of the *Sanghathan* are aware of forest plants used for treating various ailments. To safeguard this age-old wisdom for future generations of Gujjar communities, ethno-veterinary practices and indigenous healing techniques are being recorded and preserved.

The members are actively participating in lobbying with the government. These include pressurizing the government to consult pastoralists in policy development, organising *dharna* (non-violently sitting at the entrance) and organising meetings to bring about multi-village coalition. Meetings with concerned government officials (forest, livestock and agriculture departments) are also organised for helping them understand the communities' problems and rights. Frequent meetings are conducted involving other civil society supporters, NGOs and members from the district chapters of the *Sanghathan*.

The members also utilize *melas and dharnas* as a means to disseminate information and mobilise other communities. In one of the *dharnas* by *Gujjars* at the entry gate of Sariska Reserve, entry of tourists' into the Reserve was restricted. Even the entrance to prominent hotels in Sariska were blocked as a means to make the government take notice of their demands – one of them being suspension of relocation process. The pastoralist leaders were successful in getting the attention of the government on some of the issues.

An annual 'unity day' is organised. Pastoralists and forest dwelling communities from different districts in Rajasthan come together and plan how to move in a coordinated way. Also, current high profile discussions on Gujjar issue is being used as a means to raise the pastoralist agenda, including tapping political force to advocate pastoralist rights. Recently, members of the *Sanghathan* filed a petition under section 7, 8 of the Scheduled Tribes and Other Traditional Forest Dwellers Act, 2006. This petition was

National pastoralists exchange

A three day pastoralist meeting was organised at Alwar by KRPAVIS (Krishi Avam Paristhitiki Vikas Sansthan) during 16 - 18 December 2011. Pastoralists from various states including Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and Andhra Pradesh were present. Communities represented here were *Gujjars, Raikas, Kurmas, Gollas, Dalits, Maldharis and Dhangars*. NGOs working with these pastoral communities like Anthra, LPPS, MARAG, and KRPAVIS also were part of the discussion.

The three day meeting highlighted some key points. It was unanimously stated that:

- The grazing land has been shrinking, and in many cases access has been denied due to diversion of common and grazing lands for various purposes by the Government.
- Traditional grazing lands used by the pastoralists are still out of bounds for pastoralists, despite the existence of the Forest Rights Act (FRA).
- The governmental livestock policies and programmes promoting cross-breeding for local animals for higher milk yield and stall-feeding are not in sync with the traditional way of pastoralism. Traditional breeds that are suitable to local environment have to be conserved.

- The relocation procedures mentioned in the FRA have been flouted by the Government. The *Gujjars* in the Sariska Tiger Reserve have been denied their rights at every step, in the name of tiger conservation. The demand for basic amenities like schools and electricity supplies and hospitals should be provided in the Reserve Forest.
- The pastoralists, who have been traditionally using the forests, are being constantly harassed by the field staff in the Forest Department.

The pastoralist communities sat together to discuss strategies towards collective action. Some of the suggestions that came up in this session were a consensus on marking a day as 'Pastoralists Day' which would be a forum to discuss issues of concern. It was also suggested that frequent meetings should be conducted at the national level. Women from Andhra Pradesh strongly felt the need for women to take the lead and a necessity was felt for each pastoralist community to come out in support of the other, in times of need.

filed for Umri village in Sariska which was recently relocated to Maujpur roudh without giving due recognition to the rights of pastoralists.

All these measures have finally succeeded in bringing about policy amendments that saw pastoralists included in the Scheduled Tribe and Forest Dwellers Act 2006. The *Sanghathan's* passionate lobbying effort has been crucial in achieving this.

Challenges

The Sanghathan has been able to develop sufficient and good linkages between the various pastoral groups. Also, it has been able to influence some policy level decisions of the Government. Government also recognizes the relevance and importance of pastoralists' organizations. Lately, through the Department of Animal Husbandry and the Department of Social Welfare, the "Rajasthan State Pashu Palak Kalyan Board" has been set-up as a first step towards promoting the interests of the pastoralist community.

However, there are certain challenges and limitations that need to be overcome. Firstly, the association still remains as an unregistered group. Linkages with government departments and agencies are limited. Financial sustainability is yet another challenge.

NGOs will continue to play an important advisory and organisational role in these networks. In fact, their involvement remains essential in the near future to nurture and strengthen these marginal and multi-lingual groups, to facilitate their interaction

with each other, and build their capacity to negotiate with the government and make use of the legal system to fight for their rights. Till then, dependency on NGOs cannot be wished away.

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United we attain *Individually we lose*

From a joint family to the United Nations we have a good experience of the benefits derived of being organized. There are organized unions for every sector all over the world. In India, we have farmers unions right from the district level to the national level. But to my utter desperation, the benefits the farmers had ever got are too less, when compared to other industrial trade unions. Based on my experience, I feel that one of the reasons could be the inability of a farmer to spend his/her time in protests and agitations owing to many responsibilities which he/she has towards managing their farm and farm animals. If they are not maintained properly for a single day, they have to face irreparable losses or damages. This problem has become more acute in the last 50 years as joint family systems no longer exist. In the year 1954, I lived in a joint family which had 94 persons. I also know of a family near Dharwad which has 187 people living together.

In nuclear family systems, many times we do not find time to meet our parents or friends. Therefore, it is very important that farmers organize themselves at the family level, at the village level and at the national level. This is to plan, avail benefits from the government for production, procurement, processing and marketing, and thereby get better income for the produce. One thing I cannot understand with our unions in the country as to why they join together and mount pressure on the administration. It could be more due to their personal interest than the welfare of fellow farmers. In my opinion, it is better that 15-20 farmers from one or two villages organise themselves into producer societies, share their technologies and experiences to produce, procure, process and market directly to consumers regularly, at a better price. Further, we can pool resources like seed banks, agricultural implements, prepare inputs together like plant protection preparations from locally available herbs and seek financial support as a group. Already many third sector institutions are engaged in promotion of farmer's organizations to empower them with all necessary requirements.

Farming is facing acute labour scarcity all over the country after the commencement of Rural Employment Assurance Scheme. Contrary to the views of the local politicians and government officials, the scheme has benefitted neither the poor labourers nor the farming community. If the funds are spent through the farmers organizations, the poor farmer will be benefitted and the nation's agriculture production shall improve, which is fast dwindling from year to year.

Another major problem facing Indian agriculture is the loss of seed biodiversity, the seed being controlled by a few multinational companies. Crop diversity is the most important factor in providing food security for humanity and all the creatures in the nature. Farmers organizations' can play a major role in creating seed banks to preserve, produce, share and distribute many species of seeds locally available at an affordable price, and save the country from the clutches of multinational companies.

Shri Narayana Reddy is a legendary organic farmer and is one of the most sought after resource persons on ecological agriculture.

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Members of Farmers Collective

Collective farming, collective benefits

A case of Women Farmers Collective

Suresh Kanna

Access to land is the greatest limitation, especially for the poor women. The problem becomes more acute when these women are single and neglected by families, often leading to hunger and starvation. The Tamil Nadu Women's Collective has succeeded in enabling such women to come together, pursue collective farming, produce food for the family and lead a life with dignity.

In almost all the villages in India, there are about 20-30% of women who remain single, either as widows or abandoned by their families and society, who individually shoulder the burden of caring children and elders in their families. These women are either landless or have very small pieces of fragmented rain fed lands. Owing to lack of resources to invest on their own land and lack of capacities to manage their farms, these women end up doing low skilled tasks in agriculture and cattle rearing, mostly as wage labourers.

Tamil Nadu Women's Collective is a network of 35 women headed non profit organisations in Tamil Nadu working for the empowerment of the rural and marginalized communities. The Collective started in 1994 as a registered society and covers around 20 districts in Tamil Nadu.

The Collective conducted a study in 13 villages to understand the status of single women, widows and landless women farmers in these villages. This was done with the help of Women Farmers

Sangam of Tamil Nadu Women's Collectives, already established and functioning in the villages. The sangam also studied the availability of unutilized and uncultivable lands in that area. The details of the study were discussed at the Sangam meetings on how to engage the landless women in agriculture activity with the available unutilized land. During the discussion, the idea of collective farming emerged. The prime objective of this collective farming is not only to ensure food security but also to ensure the safe food through adaptation of organic farming methods.

After a series of discussions, certain criteria were identified for promoting collective farming initiative based on following principles - The farmers' collective should have maximum 10 members consisting of women who are either widows, landless or single. The group should decide on the size of land to be farmed under collective farming and lease the land for three years. One-third of the crop yield should be shared with the land owner. The members should agree to grow local food crops of daily use such as grains, vegetables, pulses. The group should maintain a bank account, records and registers bringing transparency in accounting.

Presently, collective farming is being promoted with 15 farmer groups in 13 villages of Tuticoin, Virudhu Nagar, Madurai, Salem, Thiruvannamalai, Vellore, Kancheepuram, and Thiruvallur districts in Tamil Nadu.

Farming together

Training programmes were organized for the farmers' collective on participatory planning, decision making, crop choice, method of farming with the help of eminent resource persons like Dr. G. Nammalvar. The training programmes helped women learn some practical skills like preparation of different bio inputs. With continuous support and guidance, the women farmer's collectives have gained necessary skills on agriculture, improved their decision making capacities and leadership qualities. Tamil Nadu Women's Collective supports each farmers' collective with an amount of Rs.10000 as seed money for meeting expenses like buying seeds, bio inputs etc.

The allotment of the work is decided in the weekly meetings during the cultivation period. All the farm works are shared equally by all members using a revolving system of labour so that all the members are engaged in all type of farm activities.

As the focus of collective farming is primarily on meeting family food needs, right now, they are not marketing their produce. The produce from the collective farming provides food for the family for atleast 15 days in a month. Weeds harvested in collective farms is also being used as fodder for the livestock.

The farmers collectives are also getting support from their neighbouring landholding farmers. The landed farmers help and encourage these women by providing the raw materials such as cow dung, cow urine which are required for bio input preparation. This relationship has also led to a process of learning and sharing between landless women farmers and the landholding farmers.

There are challenges too, like the delays in monsoon and frequent power cuts. Also the soil of the collective land is of very low quality



Members harvesting groundnut crop from a collective farm

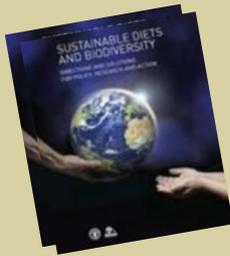
and almost dead. It needs more organic inputs to regenerate. Not being disheartened with these challenges, these women discuss alternative farming methods to overcome them. They are confident that continuous application of bio inputs will help in improving the soil health which will result in better incomes in future. Considering the high cost involved in purchase of seeds for their farming activities, the women's groups are planning to develop seed producers in their group and establish a seed bank in their village.

"We are happy to have a piece of land where we are able cultivate and gain experience in organic farming methods. We are happy and proud to be a farmer to produce, eat and feed our families with poison-free food and thus ensuring better health", says a woman farmer.

For more details, contact Ms. Ponnuthayee, Tamil Nadu Women's Collective, No. 79, Senbaga Vinayagar Koil Street, Keezha Bazaar, 7th Ward, Vasudevanallur, Sivagiri taluk, Virudhunagar - 627 758. Ph: 94448-32021

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Sustainable diets and biodiversity Directions and solutions for policy, research and action

Burlingame, B.; Dernini, S (eds.), 2012, *Food and Agriculture Organization of the United Nations (FAO), Rome (Italy); Bioversity International, Rome (Italy)*, 309 p, ISBN-13: 978-92-5-107288-2.

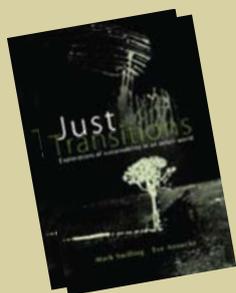
This book presents the current state of thought on the common path of sustainable diets and biodiversity. It consists of 4 chapters which look at sustainable diets and biodiversity through sustainable food production and consumption which is illustrated with ten cases studies. The final chapter deals more specifically with the example of the Mediterranean diet. The book resulted from an International Scientific Symposium “Biodiversity and Sustainable Diets: United Against Hunger” organized jointly by FAO and Bioversity International, held at FAO, in Rome, from 3 to 5 November 2010, within the World Food Day/Week programme, on the occasion of the 2010 International Year of Biodiversity.



Only One Earth The Long Road via Rio to Sustainable Development

Felix Dodds, Michael Strauss, Maurice F. Strong, 2012, *Routledge*, 336 p, £24.99, ISBN 978-0-415-54025-4.

Forty years after the United Nations Conference on the Human Environment in Stockholm, the goal of sustainable development continues via the Rio+20 conference in 2012. This book will enable a broad readership to understand what has been achieved in the past forty years and what hasn't. It shows the continuing threat of our present way of living to the planet. It looks to the challenges that we face twenty years from the United Nations Conference on Environment and Development, “The Earth Summit,” in Rio, in particular in the areas of economics and governance and the role of stakeholders. It puts forward a set of recommendations that the international community must address now and in the future. It reminds us of the planetary boundaries we must all live within and what needs to be addressed in the next twenty years for democracy, equity and fairness to survive. Finally it proposes through the survival agenda a bare minimum of what needs to be done, arguing for a series of absolute minimum policy changes we need to move forward.

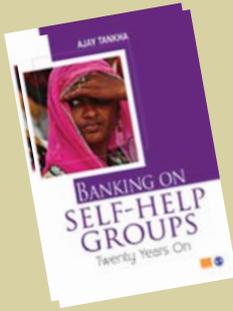


Just Transitions: Explorations of Sustainability in an Unfair World

Mark Swilling and Eve Annecke, 2012, *United Nations University Press*, 448 p., US\$ 42.00, ISBN-10: 92-808-1203-3, ISBN-13: 978-92-808-1203-9.

Current economic growth strategies around the world are rapidly depleting the natural resources and eco-system services that we depend on. Just Transitions gives a comprehensive overview of these global challenges from a global South perspective. How do developing countries eradicate poverty via economic development, while at the same time encountering the consequences of global warming and dwindling levels of cheap oil, productive soils, metals, clean water supplies and forest products? How do they address widening inequalities in income as well as the need to rebuild eco-system services and natural resources?

This book considers the theme of a just transition, which reconciles the sustainable use of natural resources with a pervasive commitment to sufficiency (where over-consumers are satisfied with less so that under-consumers can secure enough). It explores the perplexing logics of a range of different literatures and synthesises them to illuminate new ways of thinking from a sustainability perspective. It rethinks development with special reference to the greening of the developmental state, explores the key role that cities could play in the transition to a more sustainably urbanized world, and highlights the neglect of soils in the global discussions around the potential of sustainable agriculture to feed the world. Case studies drawn from the African continent detail the challenges, but they are set in the context of global trends. The authors conclude with their experience of building a community that aspires to live sustainably.



Banking on self-help groups Twenty Years On

Ajay Tankha, *July 2012, SAGE India*, 328 p., Rs 595, ISBN 9788132109648

The book reviews the existing state of affairs in respect of the SHG (Self-help Group) movement and addresses the question of what should be the next phase of development of the SHGs. It identifies the policy gaps and opportunities that exist for the SHGs to be mainstreamed further into the formal financial system.

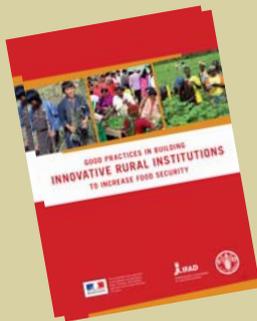
The author examines elements of strategy and design being adopted by the National Rural Livelihoods Mission as also the potential role of NABARD in the development of SHGs in the future. The study focuses on three core issues pertaining to SHGs. These relate to (i) cost-effectiveness, (ii) sustainability, and (iii) impact, i.e., the development cost of SHGs and SHG-based institutions, the sustainability of SHG models and community institutions fostered by them, and the economic and social impact on SHG members.

The book concludes with a discussion of proposals and institutional arrangements that provide the way forward for the continued and uninterrupted growth of SHGs as an agency for change in the rural sector of India.

Good practices in building innovative rural institutions to increase food security

Denis Herbel, Eve Crowley, Nora Ourabah Haddad, Maria Lee, 2012, *Food and Agriculture Organization of the United Nations (FAO), Rome (Italy) and the International Fund for Agricultural Development (IFAD)*, ISBN 978-92-5-106898-4

New forms of institutional innovations have emerged recently to provide a response to the numerous constraints that small producers face in rural areas. These innovative organizations and institutional arrangements can provide small producers an array of services including improving market access and strengthening small producers' negotiating power, enhancing access to and management of natural resources and improving access to information and knowledge. They are also an effective means to empower small producers by helping them build their capacity to formulate and express their needs and concerns within their organizations and vis-à-vis influential economic actors and policy-makers. There is a need to recognize the critical role of these innovative organizations and institutional arrangements in order to be more effective in poverty reduction and food security efforts. This case study-based publication presents a collection of thirty-five cases of successful small-scale producer innovative organizations and institutional arrangements, from different regions in the world.



Informal Institutions and Rural Development in China

Biliang Hu, *May 2012, Routledge*, 384 p., £26.00, ISBN 978-0-415-54285-2

Providing an account of the role of informal institutions in Chinese rural development, this book, based on a decade of fieldwork of village life in the Chinese countryside, puts forth a distinctive argument on a very important topic in Chinese economic and social affairs.

Focusing in particular on three major informal institutions: village trust and Rotating Savings and Credit Associations (ROSCAs), guanxi community and Integrating Village with Company (IVWC) governance, it argues that informal institutions, traditions and customs are all critical factors for facilitating modernization and social and economic development, promoting the integration of trust, reciprocity, responsibility and obligation into economic and social exchange processes and considerably lowering risks and transactions costs.

This detailed account is an invaluable resource for postgraduates and researching, studying and working in this area.



Harvesting herbs

A farmers forum shows the way

Rajendra Shirol

Farmers in North Karnataka region have organised themselves and have found solutions together in overcoming crop failures. Their initiative in including medicinal herbs in their cropping systems is paying rich dividends.

Gadag district in north Karnataka is a drought prone area receiving an average rainfall of 300-350 mm annually. Farmers in this region have traditionally been growing crops like jowar, sunflower, cotton and horsegram, exclusively under rainfed conditions. Due to erratic and unreliable rainfall pattern, farming was most uncertain and majority of the farmers migrated to places like Goa, Mangalore etc., to earn their livelihoods. Farming was also not viable due to high cost of inputs and dwindling net returns. Moreover, the farmers in villages located on the fringes of the forest areas have to face yet another problem – browsing by deers.

In 2006, about 65 farmers belonging to six villages in Gadag and Koppal districts (Belvanki, Kotumachigi, Mannapur, Itagi, Bannikoppa, Chikkahandigol) came together to address the issue of crop failure under dryland conditions. They tried including *Ashwagandha*, a medicinal crop, in their cropping system owing to its hardiness requiring less moisture and the absence of threat from deers as they are not preferred as feed. Also, the presence of fertile black cotton soils rich in organic matter and the fairly wide spread Kharif and Rabi rains made *Ashwagandha* a preferred crop under rainfed conditions.

The members of the group started growing *Ashwagandha* along with pulses and cereals, as a mixed crop. They followed low external input methods. They started benefitting, continued to grow and also motivated other farmers to grow medicinal plants.

The farmers then formed a society called “*Ashwagandha Belegarara Okkuta*” (Ashwagandha Farmers Forum – AFF) under the Karnataka Society Registration Act 1960. Membership to the group is open to any farmer, willing to grow herbs, paying a nominal fee. The members of the group are supported with a financial assistance from the Department of Horticulture under National Medicinal Plants Mission.



AFF member showing Ashwagandha plants

To gain from collective marketing, AFF has arranged buyback arrangements with noted pharmaceutical companies.

AFF started promoting medicinal species like Ashwagandha (*Withania somnifera*), Kalmegh (*Andrographis paniculata*) and Nelanelli (*Phyllanthus amarus*) among farmers of neighbouring villages. Since these species require minimum moisture and can be grown successfully in drought prone areas, small farmers started showing great interest. The forum also trained interested farmers in growing these crops under organic conditions. Farmers were also trained to integrate the cultivation of medicinal plants in the normal cropping systems being followed in the area. Experts from Agriculture Universities and Research Institutions were invited to train the farmers on technical matters. Exposure visits to neighbouring states where herbs are being grown were organised.

Also, AFF has been guiding farmers at every stage - from selection of species, developing organic farming systems, integration of cereals and pulses with medicinal plants to meet nutritional requirements, good agricultural practices, harvesting procedures and storage principles. Group certification is also being organized and farmers are in the first year of conversion to organic methods. To gain from collective marketing, AFF has also arranged buyback arrangements with noted pharmaceutical companies.

Today, *Ashwagandha* is grown over an area of 500 acres by these farmers. Farmers are convinced in this sustainable organic farming system which has also improved their net incomes.

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