India
Moving from subsistence farming to commercial agriculture

In this issue

This issue highlights how eight IFAD-supported projects are helping to reduce rural poverty by enabling small producers to adopt commercial enterprises. These stories start on page 4, but before this we have some news of IFAD events for India over the last six months, including a number of national and international events attended by staff from projects, the launching of a new project in Uttarakhand, and the approval of another new project for Jharkhand.

Latest News

Launching of New IFAD Project for Uttarakhand

The Integrated Livelihood Support Project (ILSP) was formally launched on 30 October 2012, with a start-up workshop in Dehradun. The Hon'able Chief Minister of Uttarakhand, Shri Vijay Bahuguna, inaugurated the project saying that it would be a milestone in inclusive development. Guests at the workshop included Chief Secretary, Mr Alok Kumar Jain, Rural Development Secretary, Mr Vinod Fonia, Watershed Management Secretary, Mr Jalagam Bhaskavanand, and IFAD Country Programme Manager, Mr Nigel Brett.

The goal of ILSP is to reduce poverty in hill districts of Uttarakhand. To do this the project will “enable rural households to take up sustainable livelihood opportunities integrated with the wider economy”. The project has three main components: (i) food security and livelihood enhancement; (ii) participatory watershed development; and (iii) livelihood financing.

The total cost of the project is US$258 million. This is being funded by an IFAD loan of US$ 90 million (the largest loan IFAD has provided for any project), along with the Government of Uttarakhand, banks and beneficiary groups. The project is being implemented by UGVS (Uttarakhand Gramya Vikas Samiti), the Watershed Management Directorate, and UPASAC (Uttarakhand Parvthiya Ajeevika Samvardhan Company).

New Director for IFAD’s Asia-Pacific Division

On 3 December, Ms Hoonae Kim joined IFAD as Director of the Asia and the Pacific Division. Prior to joining IFAD, Ms. Kim, a Korean national, was a Sector Manager in the World Bank, managing the Agriculture and Environment Program in the Middle East and North Africa Region.
New IFAD-supported project approved for Jharkhand

The Jharkhand Tribal Empowerment and Livelihoods Project (JTELP) was approved by IFAD’s Executive Board on 21 September. This project, which follows on from the recently completed Jharkhand Tribal Development Project, aims to improve the living conditions of tribal communities across the tribal scheduled area districts of Jharkhand. The project will enable 136,000 tribal households to take up livelihood options based on sustainable and equitable use of natural resources. The total cost of the project is US$ 116 million, which will be funded by an IFAD loan of US$ 51 million, a grant from the Government of Jharkhand of US$ 7.9 million, beneficiary contributions of US$ 0.9 million, and US$ 56 million through convergence with other government programmes.

Supporting knowledge management to empower tribal communities

IFAD’s India Country Office, using resources from a Canadian grant (the Legal Empowerment of Women Programme), organised a number of events to support women from tribal communities. These include the following:

- Toolkits have been developed with the aim of informing tribal communities on the various laws concerning tribal development, and about programmes and assistance available to them from the government.
- Two Training of Trainers events on the use of the toolkit were held in Jharkhand and Meghalaya for a total of 40 people. Participants included project and NGO staff, community mobilisers, and village elders.
- A National Conference on “Tribal People, Natural Resources and Human Well-Being: Emerging Tribal Development Paradigms in a Period of Rapid Changes in India”, was held at Puri, Odisha between 12 and 14 October at which 24 papers were presented. The conference was attended by 90 stakeholders, including policy makers, academics and development professionals.
- A learning event was held in Jharkhand on Tribal Women and Empowerment. This event was in partnership with the Gender Community of the UN Solutions Exchange and the IFAD supported Jharkhand Tribal Development Society. This was the first event of its kind in Jharkhand and included experts from different parts of the country who shared their knowledge. Apart from development practitioners from within the state, participants included DFID partners and UNDP. The Development Commissioner of Jharkhand, and a number of senior State Government officials also attended the event.

Experiences on micro-irrigation shared at World Water Week

"Scaling up Micro-Irrigation Systems" (SCAMPIS), an IFAD grant project in India, Guatemala and Madagascar, has recently been completed. A description of some of the results from this project is on page 6. In addition, the grant enabled two staff from the implementing NGO for India, International Development Enterprises India, to attend World Water Week in Stockholm in August 2012. This was organised by the Stockholm International Water Institute, with the theme “water and food security”. IFAD organised a half day seminar to highlight the SCAMPIS project with the topic “Micro-irrigation for food security: the untold stories of forgotten stakeholders”. This sharing of experiences from five organisations in the three countries, identified good practices and pitfalls, and showed the role that micro-irrigation systems could play in fighting poverty and improving livelihoods.
Bhutan+10: gender and mountain development in a changing world

Ten years after the conference “Celebrating Mountain Women”, the International Centre for Integrated Mountain Development (ICIMOD) organised a conference in October 2012 to bring together mountain women and men, researchers, policy makers, and development practitioners from mountain region in a post-Rio+20 world for a comprehensive update, stock-taking, and new agenda setting. The event in Bhutan was attended by Project Directors from two projects supported by IFAD in India – the Uttarakhand Livelihood Improvement Project for the Himalayas and the North Eastern Region Community Resource Management Project II.

IFAD supports and participates in the 2012 Micro-Finance India Summit and the 2012 Livelihoods India Conference

IFAD was a co-sponsor of the 2012 Micro-Finance India Summit, held in Delhi on 27 and 28 November. This event, organised by ACCESS Development Services, is a national advocacy platform to engage sector stakeholders and develop a comprehensive vision for future development. The theme this year was “Reconstructing the Sector: Brick by Brick”. The Hon’ble Union Minister for Finance, Shri P Chidambaram, opened the summit and delivered the inaugural address, highlighting the important place of microfinance for financial inclusion in India. IFAD’s Senior Rural Finance Advisor, Michael Hamp, made a presentation on the leverage of cooperation infrastructure. The Hon’able Union Minister for Rural Development, Shri Jairam Ramesh made the valedictory address.

The summit was followed by the 2012 Livelihoods India Conference, an annual two day event where the issues related to sustainable livelihoods of the poor are discussed by sector experts, academics, innovators, and practitioners as well as policy advocacy leaders and policy makers. The theme this year was “Role of Civil Society in Livelihoods Promotion: A Paradigm Shift”. Both these events were attended by staff from nearly all the IFAD assisted projects in India as well as the IFAD India Country Office.

Water conservation award in Jharkhand

The Jharkhand Tribal Development Society (JTDS), the agency that has been implementing the IFAD-supported Jharkhand Tribal Development Project, has been given the 2012 “Groundwater Recharge through Rainwater Harvesting Award”. This award is given each year by the Water & Sanitation Department of the State Government for contributions in the areas of groundwater recharge, efficient water use and irrigation, rainwater harvesting, and recycling of water. JTDS won the award for promoting efficient water use for irrigation.

IFAD reviews and supports India portfolio

In addition to the events described above, between July and December 2012, IFAD staff and consultants, along with project staff, participated in the following missions and other events:

- Joint Review Mission of the Post Tsunami Sustainable Livelihoods Programme
- Joint Review Mission of the Odisha Tribal Empowerment and Livelihoods Project
- Implementation Support Mission for the Meghalaya Livelihood Improvement Project for the Himalayas
- Joint Review Mission for the Tejaswini Rural Women’s Empowerment Project – Madhya Pradesh
- Project Completion Review of the Jharkhand Tribal Development Project
- Mid Term Review of the Mitigating Poverty in Western Rajasthan Project

List of projects in India supported by IFAD grants:

- Crop-based Production Systems for Raising Agricultural Productivity in Rainfed Areas
- Lead implementing agency: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- Asia and the Pacific Region Project Management Support (APMAS)
- Agency: Asian Institute of Technology (AIT)
- Rewards for Use of and Shared Investment in Pro-poor Environmental Services (RUPES II)
- Agency: World Agroforestry Centre (ICRAF)
- Consortium for Unfavourable Rice Environments (CURE)
- Agency: International Rice Research Institute (IRRI)
- Cooperation with Farmers’ Organizations
- Agency: Food and Agriculture Organization of the United Nations/Self Employed Women’s Association (FAO/SEWA)
- Enhancing Adaptation Capacity and Resilience of the Poor to Climate and Socio-Economic Changes
- Agency: International Centre for Integrated Mountain Development (ICIMOD)
- Root and Tuber Crops Research & Development Programme for Food Security
- Agency: International Potato Centre (CIP)
- Enhancing dairy-based livelihoods through feed innovation and value chain approaches (MilkIT)
- Agency: International Livestock Research Institute (ILRI)
- Small ruminant value chains (imGoats)
- Agency: ILRI
- Sending Money Home to Asia and the Pacific
- Agency: World Bank
- Strengthening processes to raise legal literacy and issues of women and tribal communities
- Agency: IFAD India Country Office (funded by Canada)
• Tripartite Performance Review Meeting with Department of Economic Affairs and all IFAD projects
• A loan and grant partners meeting for promoting better synergies between the loan projects and IFAD grants working in India.
• Gender and Knowledge Management Training Workshop for project staff in Chennai
• Monitoring and Evaluation Training Workshop for project staff in Pune
• Joint Review Mission for the Women’s Empowerment Project in the Mid-Gangetic Plains
• Implementation Support Mission for the Mitigating Poverty in Western Rajasthan Project

How poor families move from subsistence to commercial production

Introduction
Experience has shown that if poor rural households are to lift themselves out of poverty, they need a significant improvement in their livelihoods. Many poor rural families at the moment are primarily subsistence food producers, selling little or nothing in the market. They rely on other work to earn a little cash, such as daily labour on other people’s farms, or seasonal migration to other states. For these households agricultural interventions can increase the productivity and reliability of food crops. This can help improve food security, and so reduce malnutrition. Although this is important, it is not enough to lift a household out of poverty and keep it there. Households need money to pay for clothes, food, fuel and light, mobile phones, medicines and other necessities; build better houses, and invest for the future, including education of their children.

The potential for significantly increasing off-farm earnings may be limited – there is great competition in the local job market, and people lack the skills to get better paid jobs (and are not educated enough to acquire these skills). With only a limited area of often poor quality land, there is little potential to increase production of traditional food crops to such an extent that there is a significant surplus available for sale.

What farmers need to do is to adopt new types of crop and other farm enterprises (including livestock and fish), that can generate a significant income from a small area of land. This newsletter describes how eight IFAD-supported projects are doing this, and gives some examples of the resulting outcomes.

In Madhya Pradesh, Self-Help Groups set up by the Tejaswini Rural Women’s Empowerment Project have started growing vegetables, and are creating clusters which are becoming known as sources of supply to local markets. Farmers in the Odisha Tribal Empowerment and Livelihood Project (OTELP), are taking advantage of the programme’s watershed development to take up vegetable and fruit production. Linked to OTELP, an IFAD grant project, Scaling-up Micro-Irrigation Systems (SCAMPIS) is promoting the adoption of new irrigation technology, which farmers are using for vegetable production.

Some projects are combining high value crops with other interventions to improve market access and so get better prices for producers. Farmers in the Mitigation of Poverty in Western Rajasthan (MPOWER) project, have been shown how to produce tomatoes in wet season, and are getting higher prices as a result. The Convergence of Agricultural Interventions in Maharashtra (CAIM) project has facilitated a tripartite agreement between a bank, milk producer groups and a dairy processing company to finance cows, produce milk and access the market. The Post-Tsunami Sustainable Livelihoods Project in Tamil Nadu has supported a fish drying enterprise. By adding value and moving up the market chain members of this group are able to earn more income.

In Meghalaya honey producers, with help from the North Eastern Region Community Resource Management Project, have formed a collective marketing organisation which is branding and selling their honey in new markets. Producers of fresh peas supported by the Uttarakhand Livelihood Improvement Project for the Himalayas have been able to double the price they receive through collective marketing.

Lastly an IFAD grant to Bioversity International is showing how poor households in fragile environments can both increase their own food security and generate valuable income from the production, processing and marketing of small millets. This group of cereals are often neglected by development initiatives, but are highly nutritious. The project, implemented by the M.S. Swaminathan Research Foundation, has found that they are cost-effective means of providing nutritious meals for school children, and one project group is already contracted to provide grains for this purpose.
Women earning money by growing vegetables for the market

Intensification of agriculture leads to self-sufficiency in rice and generates income from vegetables.

Small farmers in the districts of Balaghat, Dindori and Mandla in the southern part of Madhya Pradesh mainly produce food for subsistence needs and earn very little from their farms. Moreover most them can only grow a part of their family's annual requirement of rice, and so have to buy food for the rest of the year. They supplement this limited supply of field crops, with wild plants gathered foods from the fields and forests, and with some vegetables grown in their homesteads (badis). Lacking irrigation, most farmers grow crops for only one season each year.

The IFAD-supported Tejaswini (women's empowerment) project saw an opportunity to invest in increasing food production by intensifying farming in order to increase the availability of food for family consumption, as well as to create a marketable surplus. Paddy, wheat and vegetables were chosen for intensification. Selected women farmers (women do most of the farming in these districts), who were members of project self-help groups (SHGs), were chosen to pilot Systems of Rice Intensification (SRI) and intensive vegetable cultivation in the summer season. In some places, the project also promoted Systems of Wheat Intensification (SWI).

For SRI, the project's resource NGO (RNGO), PRADAN, supported a number of facilitating NGOs (FNGOs) to train and advise farmers. The project also sought cooperation from the Department of Agriculture to obtain "cono-weeders" (a hand-propeller rotary weeder) for farmers.

Despite initial doubts of farmers regarding the new production practices in SRI (such as transplanting single seedlings in widely spaced rows, and using the cono-weeder), the enthusiasm of women to follow these practices resulted in an increase in paddy yields by 50% to 100% over traditional methods.

In some areas the project also supported the digging of open wells and some homestead ponds. Water collected in these small ponds (‘jalkunds’) can be used to raise fish and to irrigate nearby vegetable plots. It is also possible to grow a crop on the pond bed when it dries out.

Vegetable cultivation has been intensified by using raised beds, wider spacing between seedlings, promotion of homemade fermented plant extracts, vermicompost units and liquid fertilisers, and promotion of shade-net vegetable nurseries. Vegetable production using these new practices has increased production to the extent that SHG members report that they now are able to sell surplus vegetables. The three districts now show great promise as vegetable growing clusters.

Replication of these new practices has been almost tenfold across the region, prompting the NGOs to submit livelihood proposals for vegetable cultivation. They predict that the three districts could become major producers of vegetables. The integrated nature of this intervention has made significant positive changes in the SHG members’ livelihoods within a single growing season. For example, in Lamta village of Balaghat district, the FNGO estimates that SHG members have earned between Rs.7,000 and Rs.15,000 from vegetable cultivation alone. Many families have also grown sufficient rice to last a whole year, and aspects of SRI are being practiced by other households who are not members of project SHGs. The Chief Executive of the local government of Mandla district has reported that, with the increase in rice production in the district, there would soon be a shortage of storage space.

The agriculture intensification processes have been supported by the formation of Village Level Committees (VLCs), which have provided a forum for learning and dissemination. Much agriculture extension takes place in SHGs and VLCs, and with the Agriculture Service Provider - a local person trained by the RNGO to provide timely extension support, and who is being paid by villagers (Rs.30 per season per farmer). This service provider is placed with the emerging SHG Federation and paid through the Federation. The project intervention is similar to an initiative of the Department of Agriculture, which has mobilised equipments and other resources. Some groups also organise joint collection and transport of vegetables to the market. In addition to intensification of paddy and vegetable production, one of the FNGOs, NIWCYD, reported that SWI, combined with a pulse crop, which has not yet received as much attention from agriculture research and extension bodies as SRI, holds great promise in the area for the winter cropping season.

A good quality cauliflower grown by an SHG member

Contributors: Mr. M.K. Chaturvedi, Acting Deputy Project Director and Mr. Arvind Bhal, Manager, Mahila Vittaevam Vikas Nigam, Tejaswini Madhya Pradesh Rural Women's Empowerment Programme.
Farmers in Odisha start generating a cash income from farming

Soil and water conservation enables farmers to increase food production and grow high value crops.

Tribal communities in Odisha live in areas where farming is difficult - infertile upland soils, soil erosion, lack of irrigation and uncertain rainfall mean that crop yields are low and some farmers practice shifting cultivation. The Odisha Tribal Empowerment and Livelihoods Programme (OTELP) has been supported by IFAD, DFID and WFP along with the Government of Odisha.

One of OTELPs interventions has been a comprehensive programme of soil and water conservation, including small-scale irrigation works. This has increased production of food crops - rice, other cereals and pulses, and farmers have also started growing a significant amount of vegetables. Fruit trees have also been planted, and farming is beginning to generate some useful cash income in addition to being a source of food for home consumption.

Case study: irrigation of paddy and development of fruit orchards

Daud Bhuyan, of Saralapadar village in Nuagad block, farms three acres of wet land along with another acre of shifting cultivation on the hillside. With low yields, he was unable to feed his six person household. Fortunately the programme of soil and water conservation undertaken by OTELPS means that he is now able to irrigate two acres. On this land he grows rice in the kharif (summer) season producing about four tons of paddy, while in the rabi (winter) season he grows one acre of sunflower and one acre of vegetables. On his other acre of land he has planted bananas along with mango and cashew nut trees, which are already generating an income of Rs20,000 per year.

Daud has invested some of his increased farm income in a grocery shop with is earning him a profit of Rs250 per day. The overall result of these initiatives is that his family now has a much better quality of life, he has been able to improve the condition of his home, and has also been putting Rs10,000 per year into a savings-linked life insurance policy.

Based on OTELPS report “Impact Assessment of Land and Water Management Interventions in OTELPS; Overseas Projects and Services Ltd. 2012.

A little water for big gains

Micro-irrigation systems allow poor farmers to grow vegetables for sale and home use.

The limited land area on small farms often means that crop production can, at best, barely meet subsistence needs for farm households. Irrigation can dramatically increase production, but in many locations it is not possible to obtain a large supply of irrigation water. However limited supplies of water may be available from open wells and ponds. Although this may not be sufficient to irrigate a significant area of crops, it could make a worthwhile contribution to farm livelihoods if used for high value vegetable crops, especially if water-saving micro-irrigation systems are used.

Some farmers participating in the IFAD-supported Odisha Tribal Empowerment & Livelihoods Programme (OTELP) have received additional help to develop micro-irrigation systems along with liquid organic fertilisers. This assistance have come from an IFAD grant project “Scaling up Micro-Irrigation Systems” (SCAMPIS) which has been implemented in India, Guatemala and Madagascar and is funded by the Coopernic Sustainability Fund (Coopernic is an alliance of European retailers). In India SCAMPIS has been implemented in two districts of Odisha by IDE-India, an NGO which focuses on micro-irrigation systems, in partnership with local NGOs and community groups set up by OLELP.

Three micro-irrigation technologies were promoted by SCAMPIS: (i) bucket kit (BK): a small drip system supplied by a bucket covering 20 m²; (ii) drum kit (DK): a larger drip system supplied by a 200 litre drum covering 100 m²; and (iii) surface treadle pump (STP) - a manually operated pump to lift water from ponds, rivers and wells.
The business model adopted by SCAMPIS, based on that established by IDE-India, involves a market-driven distribution system for this equipment, with a network of 12 equipment dealers and 38 Village-Based Mechanics who have been set up to promote and support the use of micro-irrigation systems (MIS). SCAMPIS started operation in April 2009 and will be completed in December 2012. Project monitoring data indicates that MIS have been adopted by 11,905 households, exceeding the project target of 10,000 households. Data in Table 1 from a survey of a sample of 240 farmers shows that operation of MIS resulted in a substantial increase in production, sales and home consumption of vegetables.

Data in Table 2 shows that the overall income per household has increased about five times from use of drip systems, and almost three times by use of treadle pumps. Farmers have also found that treadle pumps are very useful to lift water into the drum to supply the 100 m² drip systems. The efficiency of water use has improved through the use of drip irrigation systems. Treadle pumps also make better use of limited water resources as less water is wasted compared to engine driven pumps. Although the smallest systems (the 20m² bucket kits) generate relatively little cash income, they are popular with women and have resulted in a dramatic increase (over 17 times) in home consumption of vegetables, which have important nutritional benefits.

Farmers also found that liquid organic fertiliser was both effective and low-cost, and it was adopted by 9,108 households. There is potential for these technologies to be further disseminated in the districts and spread to other districts. As vegetable production becomes more of a commercial business, producers would benefit from better links with markets and to providers of credit and other inputs.

**Small farmers in Rajasthan earn income from vegetables**

Poor farmers have been able to adopt the technology required to grow out-of-season vegetables that can be sold at premium prices.

The MPOWER (Mitigating Poverty in Western Rajasthan) project, supported by IFAD and the Sir Ratan Tata Trust (SRTT), is being implemented by the Government's Department of Rural Development in the poorest blocks.
of western Rajasthan. Farming in the region is primarily for subsistence, with farmers struggling to feed their families in a difficult environment with low and uncertain rainfall. At Abu Road block, Pradan (the project Facilitating NGO) has introduced off-season tomato production. By planting tomatoes during the monsoon season, and by controlling insects and fungal diseases with agro-chemicals, farmers are able to get good prices. In 2011 a total of 350 SHG member households each grew tomatoes on small plots – typically 0.02 ha (200 m²). Sales of tomatoes generated income ranging from Rs4,000 to Rs80,000, averaging around Rs10,000 per household. This is a significant amount of income for a poor family. Many more households now want to take up tomato production, and farmers are also trying other types of vegetables, such as brinjal (aubergine).

Tomato production transforms the life of a poor family

Sakri Bai, wife of Makna Ram, lives in a hamlet of Nichalagarh village. The family owns approximately 1.5 bighas (0.38 ha) of land which is divided in two patches on which they grow maize and wheat for their own consumption. For many years the household had very little cash income and struggled to cover their expenses. Sakri’s husband had to migrate seasonally to Gujarat to work as a labourer. Their house was in a poor condition, with the roof constantly leaking in the rains, and being very cold in winter.

In 2010 Sakri joined the Sundha Mata self-help group set up by Pradan under the MPOWER project. Loans from the group provided her some means of getting credit without going to the moneylender. However their income remained very low until, in June 2011 she decided to participate in the vegetable cultivation intervention introduced by MPOWER. Sakri decided to use 12 decimals (0.05 ha) of her land to grow tomatoes, and was given seeds, pesticides and other inputs by the project. She followed the practices recommended by the Pradan field staff, and transplanted 850 seedlings from her nursery, of which 700 survived to each produce 10-15 kgs of tomatoes.

Total production from the small patch of land was 6,300 kg, which earned a total of Rs 75,000. These earnings have brought the family new hope and opportunities. They have purchased an electric pump-set for Rs18,000 to lift irrigation water from their well, along with a motorcycle. They are also sending their son to a private school, and are planning to repair their house and build a solid structure to protect them from rain and cold. Sakri is now growing tomatoes again, and the photograph shows her with some of the first tomatoes from her 2012 crop.

Story from Pradan, Abu Road

The success of this venture has come about by Pradan transferring the technology from its project in Jharkhand, where it was shown to work well. The technology package includes selection of the right variety, seedling production in a nursery protected by plastic sheet and netting, protection from insects (especially white fly) and fungal diseases, and staking the plants. Tomatoes have been sold in local markets where there is sufficient demand to absorb current production, but if production greatly increases farmers may need linkages with more distant markets. Tomato plants continue to produce into the dry season and so require irrigation. This limits the crop to those with access to irrigation (usually from a well). The project has already built some rainwater collection ponds, and farmers who lack wells could use such ponds for irrigation – if they also used drip irrigation systems, the amount of water needed would not be large. The technology is now being introduced to another MPOWER block.

A new partnership for dairy development

Poor households in Maharashtra get support to produce and sell milk.

Farming in the Vidarbha region of western Maharashtra has been under considerable stress. There is little irrigation, and rainfed cotton is the main source of farm income. This crop has suffered from unreliable rainfall and sharp price fluctuations, and the region has become known as a distressed area. One solution is to develop alternative sources of farm income, such as livestock production.

The Convergence of Agricultural Interventions in Maharashtra (CAIM) is being implemented in the region by the Maharashtra State Agricultural Marketing Board with support from IFAD and SRTL (Sir Ratan Tata Trust). In Amravati district, the project has facilitated a tripartite agreement between Joint Liability Groups (JLG) of project farmers, a dairy processing company (Neelay Dairy), and a bank (Central Bank). This agreement has enabled farmers to get better access to the market for milk, animal health care services and bank loans. Neelay Dairy has a more reliable supply of milk from an area close to its processing plant, which has reduced its milk transport costs, and Central Bank is able to provide loans to poor farmers with a guarantee of repayment.

In April 2012 the scheme had been operating for three months, and a total 106 farmers, both men and women, were involved in two villages (Nimla and Saloram). They had been organized into JLGs each of 4 or 5 members by the project’s Implementing Agency for the cluster, Action For Agriculture Renewal in Maharashtra (AFARM), an NGO. The plan is to supply two milk animals per household, the second being purchased three or four months after the first. This will help ensure continuous production of milk. The cost per animal is Rs30,000 to Rs40,000 and most people have preferred to buy buffalo.

Each JLG has a bank account, and farmers buy cows with a cash deposit of 25% and a loan from Central Bank for the remaining 75%. The interest rate is 12.75% with monthly repayments over three years. If repayment is satisfactory, NABARD will provide a subsidy to repay 25% of the cost (one third of the loan) after 18 months, so the farmers end up repaying only 50% of the value of the...
Project funds are being used to pay for the insurance of cows, with a premium (for three years) of 4.8% of the cost of the animal. The insurance cover is for the amount of the outstanding loan. The project also funded the transport of the cows after purchase.

In Nimla village each farmer takes his or her milk 8 km to the collection centre. When the volume increases to about 200 litres per day Neelay Dairy will establish a collection centre in the village, but the current volume (in April 2012) was only 50 litres per day. Total production in the village is about 100 litres, with the rest consumed at home or sold locally in the village.

In Salorum village Neelay Dairy has a collection centre which was currently purchasing about 200 litres per day, although earlier, before the hot weather, they were getting 300 litres. About 25 to 30 litres are also being sold in the village, and each milk producer retains one or two litres for household consumption. Previously in Saloram there was no milk in the village, and people were compelled to drink black tea with no milk. Now it is said that if somebody is producing 10 litres per day, they will consume 1 or 2 litres and the rest will be sold. Many people used to migrate out of the village to find work, but now, if they have cows, they have enough income so do not need to migrate. Alcohol consumption has also declined because people are busier.

The quality of milk is tested at the collection centre and the price paid is based on the butterfat content. Prices range from Rs22 to Rs24 per litre for buffalo milk, and Rs15 to Rs16 for cow milk. Typically each month a household would sell milk worth Rs3,000, from which Rs1,000 is deducted by Neelay Dairy for loan repayment.

Neelay Dairy employs a veterinary doctor who provides free veterinary advice to members of project groups, with farmers paying for the cost of medicines (although Neelay may provide these on credit and recover the money via the milk payment). The cost of employing a vet is between Rs15,000 and Rs20,000 per month, and he covers about 19 villages (106 CAIM farmers). The cows are regularly de-wormed and vaccinated for six different diseases.

The project, through convergence with the Agriculture and Animal Husbandry Departments, has also supported fodder (sorghum and maize) production on 100 ha. The project is planning demonstrations on lucerne and also for dry season grasses and stylo fodder.

The processing plant of Nelay Dairy produces pasteurized milk in plastic pouches. The plant has a capacity of 35,000 litres per day. This amount can easily be sold as Amravati town itself needs 40,000 litres per day. However sufficient raw milk is not available. Before the programme started, milk was being transported from an uneconomic distance. By getting milk from the CAIM groups, located near to the plant, the average transport cost for raw milk has gone down from Rs4 per litre to only Rs1.

Pouches of milk are sold by the dairy at Rs24 to Rs28, and about 50 grams of cream per litre of milk is extracted and sold for Rs180/kg. The average cost of milk is about Rs18 per litre and the processing cost is Rs2.75 making the total cost Rs21 per litre, so the margin to cover the investment is quite small. There is no scope to increase retail prices as these are controlled by the government.

The total investment in the dairy plant was Rs13.5 million including the cost of the land. The owner has other businesses, such as electrical circuit boards, which provide most of his income, but he wanted to make an investment in an enterprise that will benefit the people in the rural area where he was born.

Given the ready market for milk, and interest of farmers in taking up dairy farming, this approach could be scaled up – both with Neelay Dairy and with other processors. CAIM is also supporting other approaches to dairy development, including local cooperatives that both market milk and provide loans for farmers to buy cows, and groups that convert milk into paneer (soft cheese) for sale.

**Improved fish drying generates good returns for members of a women’s group**

Many women living in coastal Tamil Nadu make an income from drying fish. However this is a seasonal business with slender margins - typically dried small fish sell for twice the price of fresh fish, but half the weight is lost in the drying process, leaving little margin for the women who do this work. However there is potential to sell dried fish at a higher price by improving the quality, and adding value by moving up the market chain.

The Post-Tsunami Sustainable Livelihoods Project (PTSLP) is being implemented by the Government of Tamil Nadu with support from IFAD. The project is supporting groups of women to set up micro-enterprises, which have included a number of fish drying units.

One of these groups is at Akkaraipettai, a fishing village in Nagapattinam district. They are utilising a drying plant which was set up in 2006 by an NGO in response to the tsunami that hit the coast in this district in December 2004. The unit had a solar/electric drying system, with air being blown through a drying chamber where fish was...
placed on perforated metal racks. This failed due to high cost of electric power which, in any case, would be of most use during the monsoon season - but at this time of year less fish are being caught so there is less need to dry the surplus.

The PTSLP group took over the plant in October 2011. PTSLP provided the group Rs250,000 as an interest-free loan. Renovation of the building and a concrete drying area cost Rs 65,000, and the rest of the money was used for working capital. By July 2012 the group had repaid Rs138,000 of the loan.

Fish are now dried naturally outside in the sun, but using the metal drying racks which were provided when the unit was set up in 2006. The group started with 10 members, and had grown to 14 women by July 2012.

In the peak season (which lasts four months) the group produces 50 kg of small dry fish per day (using 100 kg of wet fish) plus 10 kg of large dry fish (using 40 kg of wet fish). Small dried fish are packed in 50 gm plastic packs, which retail for Rs10 each under the brand name “Best Dried Fish”. The group sells retailers a card with 12 packs attached, allowing them two packs free - so 600 grams are sold for Rs1000 - or Rs167 per kg.

Wet small fish cost about Rs30 per kg and ordinary dried fish sell in bulk for Rs60 per kg. The group therefore get a premium of almost 2.8 times the ordinary dried fish price by producing a high quality product (drying on metal racks helps to keep out dirt) in retail packaging. The group also produces dried fish coated with chilli powder, but so far demand for this product is limited.

The group can dry between 1000 kg and 1500 kg in two days with 10 of their women members, each being paid a wage of Rs150 per day. The group also buys fish that has already been dried for cleaning and packing, which is more profitable than drying their own fish.

**Success for honey producers in north-east India**

Small-scale bee keepers in the Mawkyrwat region of West Khasi Hills District in the state of Meghalaya have come together to market their honey. The Joint Federation & Association Farmers’ Marketing & Consumers Society (JFAMCS) was registered in 2006 with help from the West Khasi Hills District Support Team of the North Eastern Region Community Resource Management Project (NERCORMP), a project of the Government of India supported by IFAD.

JFAMCS now has 400 individual bee-hive owners (including 80 women), and a total of 105 Self Help Groups (SHGs), 32 Natural Resource Management Groups (NaRMGs) and 1,000 households in 32 villages are currently associated with the society. NERCOMP has provided producers with 2,500 bee hive boxes and equipment for a processing unit, along with specialised training. The group is located in an orange growing belt, so bees are vital to pollinate this fruit, while orange blossom honey is a premium product with consistent quality, which gives the group an edge over other honey producing companies.

In the last three years, the production of the ‘Orange Honey’ has increased to 500 kg per annum. With an average selling price of Rs. 550 per kg (at least Rs.25 more than the open market price), producers make a net profit of Rs 75 per kg. Hives are kept on private land or in the forest, and honey is collected once or twice a year. Initial processing is done in the unit located at Mawkyrwat, and honey is then sold in local markets and in retail shops located at Nongstoin and Shillong, as well as at the project office. JFAMCS has also started to sell honey via the internet under the brand name of “NEAT Honey” (NEAT stands for North East Agro-business Trade which is the trademark used for the branding of products in the NERCORM project).

Members of JFAMCS are pleased with the progress that they have made. “It was the continuous effort of the communities that helped them to come together and work”, says Ms. F. Syiemlieh, Secretary of JFAMCS. However some obstacles remain. As apiculture is taken mainly as a part time income generation activity, there is lack of full time skilled beekeepers, and the volume of production is still limited. Other issues that need to be addressed are the scientific management of bees, quality
testing, and value addition (mainly in packaging). The District Support Team is planning more advanced training on scientific management of bees and to improve the honey processing unit. The project office at Shillong is working on value-added packaging with standardised bottling and labelling, which will help strengthen the ‘NEAT Orange Honey’ brand.

Contributor: Abhijeet Sarkar, Marketing Coordinator, NERCORMP

Collective Marketing increases returns for small farmers

Off-season vegetables provide a cash income for hill farmers in Uttarakhand.

Farmers in Uttarakhand work in a difficult mountain environment. Land holdings are small and fragmented in tiny terraced plots on steep hill sides. Shallow and immature soils mean yields are low, and there is little use of modern crop varieties, mineral fertilisers, irrigation and other inputs. Agriculture is largely for subsistence, and people rely on non-farm earnings, especially migrating to jobs outside of the state. Lack of labour, low productivity and wild animal damage are all contributing to land being abandoned.

Despite the disadvantages that agriculture faces in the hill areas, Uttarakhand does have the advantage of cooler temperatures at higher altitudes, allowing production of out of season vegetables and temperate fruits. These can be sold at premium prices in the cities of northern India. But small farms and scattered production pockets located far from markets are barriers to adoption of these remunerative cash crops.

The Uttarakhand Livelihoods Improvement Project for the Himalayas (ULIPH), is being implemented by the Government of Uttarakhand, with financial support from IFAD. The project has been helping farmers interested in vegetable production come together for collective marketing. In 2010-11 a Federation of Self-Help Groups (SHG), Saptrishi Swayat Sahkarita, of Gangtari village in Uttarkashi district, started marketing peas from 122 producers from nine project villages, along with peas from another 38 farmers in four villages outside the project area.

Last season (2011-12), pea marketing by this federation expanded to a total of 600 producers from 21 villages, and the value of sales increased from Rs454,000 to Rs1,066,000, with the volume going up from 35.7 tons to 66.5 tons. Two other Federations in the same district started marketing peas, involving a total of 113 producers from nine villages handling 25.5 tons of peas worth Rs494,000. These Federations are all registered as cooperatives.

According to farmers, collective marketing of peas has doubled the average price they receive from Rs8-10 per kg to Rs16-21 per kg. The Federation is able to contact a number of commission agents in the main wholesale markets, so cutting out local middlemen and aggregators, and making transport more economic. Producers no longer need to go to markets to collect payments for vegetables that they sell, with all transactions now taking place through a local bank branch.

Contributor: Pawan Kumar, Project Manager, ULIPH
A better life for poor households in disadvantaged areas

A project shows how millet crops can be used to both improve household food security and generate useful income and employment

Although more than 7,000 edible plant species have been identified, over half the global requirement for proteins and calories are met by just three grains: maize, wheat and rice. This narrow base of global food security is not only impoverishing our diets, but it is also limiting livelihood options for the rural poor, particularly those marginal areas who grow other types of food crops adapted to high risk and fragile environments. Such neglected and underutilised species (NUS) have been selected by farmers for their resilience and low input requirements. However these locally important species are often overlooked by development programmes.

In the Asia-Pacific region small millets are one such cereal crop. These include species such as finger millet, little millet, foxtail millet, barnyard millet, Proso and Kodo millet. In India, about two million hectares of small millets are grown, with finger millet accounting for 70% of this area. Millets are very hardy and can grow in areas where the main cereal species would fail, so their role in areas affected by climate change cannot be overemphasized. Nutritionally, they are high in micronutrients, particularly calcium, iron, vitamin B, potassium and magnesium. They have also high dietary fibre content and a low glycemic index.

Relatively simple and inexpensive changes in the cultivation of millet (and also other NUS), processing, marketing and use can trigger significant livelihood benefits for poor people in marginalised areas. Furthermore, they also draw on rich indigenous knowledge, making them also ideal instruments for promoting the maintenance of the knowledge, identity and self-esteem of local communities.

For the past 10 years, IFAD has been supporting a Bioversity International programme to enhance the contribution of NUS to food security and incomes for the rural poor in India, Nepal and Bolivia. The M.S. Swaminathan Research Foundation (MSSRF) is responsible for implementation in India. Currently in its third phase, the grant title is “Reinforcing the Resilience of Poor Rural Communities in the Face of Food Insecurity, Poverty and Climate Change Through On-Farm Conservation of Local Agro-biodiversity” – better known as “IFAD NUS III.” In India it is being implemented in three villages in the Kolli Hills (Tamil Nadu) and Jeypore (Odisha), in 17 villages of the Kolar district (South Karnataka), and in eight villages of Dharwad, Bellary and Haveri districts (Northern Karnataka). The focus is finger millet, little millet and foxtail millet.

Improved cultivation techniques, including the rescuing of traditional knowledge, has meant that 200 millet growers increased their yields by 70% and their income by 30%. Another major intervention is the improvement of post-harvest processing, value addition, market linkage, which also aims to reduce drudgery for women. The project introduced micro-mills in project villages and organized

56 self-help groups (SHGs) to manage these mills. Many of these groups are now actively marketing traditional crops and products.

In Jeypore and Kolli Hills, value addition for a ton of millet, on average, adds an income ranging from Rs1,050 to Rs19,250, depending on the product. It also generated additional employment, particularly for women, to the tune of 40 to 300 person-days per ton of grain. The removal of drudgery by easy-to-operate village-scale mechanical grain mills is an important step to promote both household consumption and a grain value chain. Training provided includes variety selection, seed production, production technologies, soil and water conservation, organic farming, product packaging and marketing, and account keeping.

A brand for marketing finger millet (and other millets as well) has been introduced. A study to assess the nutritional role of millet-based foods and their cost for school meals showed that some recipes had the lowest cost per serving while providing the highest level of calories and proteins, as well as being nearly totally acceptable for children. One of the SHGs in Jekinkatti now has a contract to supply millet for the school feeding programme. Thanks also to the lobbying of the Project, the Indian Government is now considering including nutritious millets in the public distribution system (PDS) in regions where these crops are popular. IDRC, a Canadian development agency, is to contribute USD 4 million to MSSRF for a new project that will allow the scaling up of the IFAD NUS work.

For further information see the video from MSSRF: http://www.youtube.com/watch?v=BekHn7g8HyO

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Photographs in this newsletter were provided by the respective projects and by IFAD missions.