Women and food sovereignty
Dear Readers

Together, we have made a good beginning. We are extremely grateful to all those readers who have made voluntary contributions for the magazine for the year 2010. Some of you have contributed a bit more than the production costs to be able to reach those who cannot afford to pay. In this issue, we are circulating names of all those who have contributed! As of now, 225 readers have contributed voluntarily, an amount of Rupees 1.25 lakhs. In the coming months, we expect this number to grow. We look forward to more generous contributions from institutions.

The global network of LEISA magazines is now called the AgriCultures network. The network serves the readers all over the world through one global edition and seven regional editions of the magazine, in different languages. The network is striving to promote commonality as well as diversity of approaches to make the message of LEISA heard, practiced and followed – louder, clearer and stronger.

The global magazine has been renamed as Farming Matters to reflect the relevance and importance of family farming and small holder agriculture. While the global edition would focus on projecting the ‘bigger picture’, the regional editions continue to focus on sharing relevant experiences to strengthen ‘practice’ as well as ‘practice based advocacy’.

The Editors
Women and food sovereignty
Michel Pimbert

Most of the world’s food is grown, collected and harvested by over 2.5 billion small-scale farmers, pastoralists, forest dwellers and fisherfolk – more than half of whom are women. Women’s knowledge and labour play a key role in sustaining the many diverse, local food systems that still exist today throughout the world, particularly in developing countries.

Gendering Agriculture
Putting women first
P V Satheesh

By gaining critical control over seeds rural women have recovered traditional landraces and biodiversity in agriculture. Initiatives such as Alternative PDS and Food Sovereignty Trust by Deccan Development Society have not only ensured heightened access to food and nutrition but have also empowered women by strengthening their leadership abilities.

Unleashing Entrepreneurship
A woman shows the way
G S Unnikrishnan Nair

Mushroom production is an untapped potential source of employment and income in Kerala. Janaki who has established herself as an enterprising entrepreneur in mushroom production is now a role model for several unemployed youth.

Bihanaa Maa
The ‘seed mothers’
Biswa Mohanty

‘Seed mothers’ of Orissa have played a crucial role in the revival of millet based farming systems. Being store houses of knowledge on local seeds and biodiversity, they have been instrumental in identifying, conserving and spreading local and traditional seed varieties.
Women and food sovereignty

Traditionally women have been playing an equal and an important role as men in farming and continue to do so. Subsistence farming was primarily nature friendly and was tended and nurtured by women. While men performed the arduous tasks of ploughing the land, women were more into activities like sowing, weeding and harvesting. Food was grown primarily for home consumption and the cropping pattern reflected this need. The households were food secure for most of the period, with women ensuring nutritional security through their choice of crops.

Intrusion of modern farming techniques made a large imbalance in the roles of men and women in agriculture. Externalization of agriculture resulted in more dependence on outside inputs and knowledge. While machines replaced human labour, particularly the female labour, monocropping systems and introduction of cash crops no longer depended on the traditional wisdom. Women who were the custodians of traditional knowledge on seeds and repositories of knowledge on biodiversity, gradually found themselves marginalised in the new farming systems. Gender insensitive programmes and policies of the government further pushed them to the periphery.

It is being increasingly recognized that modern system of agriculture is not sustainable. The natural resources are degrading and food production declining. With the negative influences of green revolution making farm based livelihoods unsustainable, men are in search of remunerative livelihoods in the urban areas. Women, therefore are becoming increasingly the main cultivators and there is rather very little recognition of this fact. Today 40% of agricultural workers in India are women and this percentage is rising. Also, around 85% of all rural female workers are in agriculture. An estimated 20% of rural households are defacto female headed households.

Women as food providers

Women continue to play a major role in providing the food security to households. Their role in agriculture has become all the more important as farming is increasingly becoming a responsibility of women to feed their households. Farming is once again in the hands of women, though not with recognition and respect to them, but as the only means of survival for the households. Nevertheless, women left with degraded resources, are finding ways of making a sustainable living on these lands. They are shifting to ecological ways of farming providing the food and nutritional security for the family members.

Women farmers look at the entire farming process as a cycle of life. Food is produced in a cyclical and nurturing process of birth, growth, maturity and regeneration. This vision is radically different from the vision of the Green Revolution agriculture. This is the paradigm that women in Medak in Andhra Pradesh are presenting to the outside world (P V Satheesh, p.10). Women are going back to cultivation of millets, the traditional food of the region, thus making an invaluable contribution to the food security.

Women as preservers of biodiversity

Women are often the preservers of traditional knowledge of indigenous plants and seeds. They have a special knowledge of the value and diverse uses of plants for nutrition, health and income. They grow traditional varieties of vegetables, herbs and spices in their home gardens. They carefully preserve the seeds and hence the plant genetic resources. Their knowledge on seeds and seed storage contribute to the viability of the agricultural diversity and production.

Groups of women are managing and conserving this precious resource through collective seed banks. They are involved in the exchange and saving of seeds. Women’s groups in Baran district of Rajasthan have set up 49 seed banks in 50 villages. Traditional seed storage techniques are being used and around 10,223 kg of seeds of different crops such as maize, bajra, black gram, pigeon pea, coriander, groundnut, sesame, and rice are collected (Veena and Tiwari, p.13).

A women’s federation in Gujarat State set up fodder banks along with seed banks to overcome the shortage of fodder to their livestock. Besides conservation, setting up of banks has helped empowering women by strengthening their confidence in managing their assets (Naresh and Pallavi, p.21).

Women have a wealth of knowledge on biodiversity. Their knowledge includes understanding of wild ancestors of food, medicinal plants; symbiotic relations with ecosystems and so on. In order to further preserve biodiversity and limit its degradation, local people, particularly women can and are playing a lead role in biodiversity conservation. For instance, the seed mothers in Orissa, called Bihanaa Maa, have played a crucial role in the revival of millet based farming systems (Mohanty, p.39). Being store houses of knowledge on local seeds and biodiversity, they have been instrumental in identifying, conserving and spreading local and traditional seed varieties. Unfortunately, the importance of women’s knowledge and expertise on biodiversity is often overlooked or ignored by development planners.

Women as stewards of natural resources

Rural women play a key role in natural resource management and in achieving food security. They often grow, process, manage and market food and other natural resources. They are generally responsible for small livestock, vegetable gardens and collecting fuel, fodder and water, as well as carrying out their traditional reproductive roles. Owing to migration, more and more women are assuming the primary responsibility of farming. And most often the lands managed by women are degraded and are in the most fragile areas, like the drylands.

Women being nurturers, tend to take care of their lands without harming them and the surrounding environment. They rely on
processes that are self-reliant and recycle the limited resources on the farm for their optimal utilisation. They protect and conserve natural resources like soil and water, so that agriculture becomes sustainable. Also, the lack of access to credit and less mobility makes them depend on internal resources. They rather depend on applying organic manure than go out in search of expensive chemical fertilizers.

Factors like delayed monsoons and rising temperatures are making agriculture more challenging in these fragile ecosystems. Under such changing climatic conditions, women are the most vulnerable as they are dependent on the natural resources not only for food but also for fuel, water and fodder for livestock. However, they are also effective actors or agents of change in mitigating and adapting to changing climatic conditions. Women often embody traditional knowledge and expertise on climate change mitigation, disaster reduction and adaptation strategies. Their responsibilities in households and communities, as stewards of natural and household resources, positions them well to contribute to livelihood strategies adapted to changing environmental realities.

Women as entrepreneurs

There are several successful examples where women have emerged as successful entrepreneurs. Many examples have been illustrated in our earlier issue, *Farmers as Entrepreneurs, Vol.11, No.2*. We have included one more example of an enterprising entrepreneur, Janaki (p.25) who is now a role model in mushroom production.

Strong local level groups with strong external support and a supportive environment can help women bring out their innate potential. Around 41 women in Mehasana district in Gujarat, collectively took up tree plantation and crop rearing on unused lands. With the support of SEWA, an NGO, they have also converted their villages into eco tourist destinations providing services for interested urbanites fond of rural life, cultures, landscapes and environment (Pandya and Senma, p.30).

Women in development

Rural communities are changing, and the role of women must be seen in the context of their role in community development. Failure to recognize their roles results in misguided policies and programs, forgone agricultural output and associated income flows, higher levels of poverty, and food and nutrition insecurity. Exclusion of women’s perspectives, knowledge systems, specific interests, and particular skills is likely to carry an economic cost that the country can ill afford.

Women, as producers, still remain largely invisible and unsupported. Mainstream investments and development interventions tend to focus elsewhere and as a result, they are often ineffective. Women farmers receive less than 5% of extension services worldwide. The priorities of the woman farmer are rarely reflected in agricultural research or national policies, and when they are, this is often not translated into practice in agricultural development planning. This year’s IFPRI report, "The Challenge of Hunger 2009," looks at global hunger through two specific lenses: the current financial crisis and gender. IFPRI also found indisputable links between high rates of hunger and gender inequity. Together, the Global Hunger Index and Gender Gap Index demonstrate that addressing gender inequalities is crucial to reducing hunger. At the national level in 2008, The National Commission for Women has prepared a draft policy on women in agriculture, with women in the center of agriculture development. However, their impacts can be visible only when these policies are put into practice.

The articles in this issue brings out one fact clearly that women are primary providers of food security as well as nutritional security to the communities. The social health of the community depends on their inclusion in the development processes.
Theme overview

Women and food sovereignty

Most of the world’s food is grown, collected and harvested by over 2.5 billion small-scale farmers, pastoralists, forest dwellers and fisherfolk – more than half of whom are women. Women’s knowledge and labour play a key role in sustaining the many diverse, local food systems that still exist today throughout the world, particularly in developing countries.

Michel Pimbert

Many people derive their incomes and livelihoods from selling, processing and exchanging local food. Think of all the small food industries in every quarter of cities in countries in the South, and women serving lunch and dinner in their food stalls on every street corner. Localised food systems provide the foundations of people’s nutrition, incomes, economies and culture throughout the world. They start at the household level and expand to neighbourhood, municipality and regions. Such food systems constitute a whole network of local organisations, each active in different sectors of the food chain: production, storage and distribution. Women make up most of the workforce of local food systems. They contribute decisively to food security and local economy.

Global developments at local level

Governments and global food industries make us believe that a new era is coming, in which big companies will produce food for everyone. The current political agenda is so dominant that the press, universities, schools and extension services all implicitly promote “free markets” as the only and best way for development. This implies that small-scale farming is outdated: small farmers will leave their villages and settle in cities, where they will find employment in industry or services, and they will buy their food from the local supermarket that sells food from all the continents. If a harvest fails in one global region, then another supplier will step in. This “food security” agenda promises bulk food production so that there will be enough food for all on the planet.

It is an interesting vision. But, do free markets provide the best food security? Free trade has been promoted in the past decades, and yet, last year, markets showed that they are not the stable food suppliers we were made to believe. In early 2008, investors started hoarding food, the price of rice peaked, and importing countries were hardest hit. Local food prices doubled and the number of hungry people increased by almost 200 million worldwide.

Food prices in such a system may go up or down dramatically, pushing more and more people into poverty. These developments are out of the control of rural people and even of governments. This is more a threat to women than to men, for in most rural households, it is women who are responsible for putting food on the table every day.

Women and food: Some facts and figures

- Rural women are the main producers of the world’s staple crops—rice, wheat, maize, sorghum and millets—which provide up to 90 percent of the rural poor’s food intake.
- In Southeast Asia, women provide up to 90 percent of labour for rice cultivation.
- In sub-Saharan Africa, women produce up to 80 percent of basic foodstuffs both for household consumption and for sale.
- Women perform from 25 to 45 percent of agricultural field tasks in Colombia and Peru.
- Women constitute 53 percent of the agricultural labour in Egypt.
- Fewer than 10 percent of women farmers in India, Nepal and Thailand own land.
- An analysis of credit schemes in five African countries found that women received less than 10 percent of the credit awarded to male smallholders.
- Only 15 percent of the world’s agricultural extension agents are women.

(Source: www.fao.org/gender/en/agrib4-e.htm)
The right to food and sustainable food production

Fortunately, free market development is not the only development option. There are other development models for the future of food and farming. Farmers, food workers, nomadic pastoralists and indigenous peoples have a role to play in a more reliable global food system. Especially if they are women.

The food sovereignty model is such an option. The concept of food sovereignty had already been under discussion for a few years when it was released at the International Conference of La Via Campesina in Tlaxcala, Mexico, in April 1996. In the words of La Via Campesina:

“Food sovereignty is the right of peoples to define their own food and agriculture: to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self reliant; to restrict the dumping of products in their markets (...). Food sovereignty does not negate trade, but rather it promotes the formulation of trade policies and practices that serve the rights of peoples to food and to safe, healthy and ecologically sustainable production.”

During the 1996 World Food Summit, held in Rome, Italy, La Via Campesina presented a set of mutually supportive principles that offered an alternative to the world trade policies and would realize the human right to food. Food sovereignty thus implies the right of individuals, peoples, communities and countries to:

- safe, nutritious and culturally appropriate food and to food-producing resources;
- define their own agricultural, labour, fishing, food, land and water management policies which are ecologically, economically and socio-culturally appropriate to their unique circumstances;
- manage, use and control life-sustaining natural resources: land, waters, seeds, livestock breeds and wider agricultural biodiversity, unrestricted by intellectual property rights and free from genetically manipulated organisms;
- safe, nutritious and culturally appropriate food and to food-producing resources;
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produce and harvest food in an ecologically sustainable manner, principally through low-external input and organic production as well as artisanal fisheries;

- choose their own level of self-reliance in food and develop autonomous food systems that reduce dependence on global markets and corporations; and
- protect and regulate domestic production and trade and prevent the dumping of food and unnecessary food aid in domestic markets.

The food sovereignty policy framework is elaborated by a global network of social movements and civil society organisations. These organisations aim to bring together indigenous people, pastoralists and other rural groups from both South and North and to give them a voice and influence in global developments. It is a citizens’ response to the multiple social and environmental crises induced by modern food systems (McIntyre et al., 2008; Pimbert, 2009).

Food security, food sovereignty and political choices

The food sovereignty concept was developed as a reaction to the increasing (mis)use of “food security”. Still, the two concepts are often confused.

The mainstream definition of food security, endorsed at food summits and other high level conferences, is concerned with everyone having enough good food to eat each day. But it does not talk about where the food comes from, who produces it, or the conditions under which it is grown. This allows food exporters to argue that the best way for poor countries to achieve food security is to subsidise and import cheap food or to receive it free as “food aid”, rather than to produce it themselves. This makes countries more dependent on the international market, drives small-scale farmers, pastoralists and fisherfolk off their land and into cities, and ultimately worsens people’s food security.

Food sovereignty promotes community autonomy, i.e., women and men determining for themselves just what seeds they plant, what animals they raise, what type of farming they carry out, what economic exchanges they engage in, and what they will ultimately eat for dinner. A political dimension comes in here: contrary to the rather technical concept of food security, food sovereignty points to the responsibilities of people and governments. They have to take into consideration the local consequences of macro political and economic processes.

The link between women and food sovereignty is evident. Women do the bulk of the labour in agricultural food production and commerce, as they are mostly responsible for providing their family with food. Their husbands may be more concerned with cash crops, as every household has its expenses (taxes, school fees, investments, etc.). Because of their close relation with subsistence farming, women have specific, but unrecognised, traditional knowledge of seeds, harvesting and storage techniques and traditional products. Most have no rights to access land and water and have little decision-making power.

Women speak up in the food sovereignty movement

Women have decisively shaped the concept of food sovereignty (Desmarais, 2007). They have established new spaces in male-dominated structures such as through La Via Campesina’s Women’s Commission. Women have also influenced global policy debates. Just a few examples:

- **On the right to produce.** Women insist that farming peoples everywhere “have the right to produce our own food in our own country” and had a strong voice in La Via Campesina’s “Declaration of Rights of Peasants – Women and Men” (2009).
- **On agro-ecology.** Women emphasise the need to reduce the use of health-endangering chemicals (e.g., pesticides, antibiotics, growth hormones).
- **On property rights.** Women have systematically highlighted the inequitable control of land and other resources between men and women.
- **On democracy and citizens’ voice in policy making.** Women stress that this is needed to realise equal access to land and ensure the positive impact of agricultural policies on their lives.

Readers of LEISA Magazine see that issues emphasised by women are of tremendous relevance for all food producers and consumers, not just for women.
How to promote women’s roles and food sovereignty?
The food sovereignty agenda stipulates that it is not the market that should control food systems, but people and their democratic organisations and institutions. Food policy is too important to be left to corporate monopolies, agricultural professionals and economists alone. It must also be the domain of ordinary women and men. Food sovereignty implies greater citizen participation and more direct forms of democracy in the governance of food systems. Citizens, and especially women, must nurture the skills and processes needed for active civic engagement in public affairs. This is not an easy task. For example, local organisations play key roles in the reforms for food sovereignty; yet local organisations do not always create enough space for women. To reverse existing gender biases and discriminations, women will need to further strengthen their capacity for collective action and to be heard.

The food sovereignty movement is confronted with a well-organised network of people in science, business and mainstream politics. The network of family farmers, local food processors and women leaders needs to become politically stronger. It can form a movement interlinking villages, towns, neighbourhoods and ecological units, and function as a counter-power to promote deep systemic change in society. Such a movement can both oppose and link up with local government and state organisations as well as with large food companies – as long as they act on behalf of ordinary citizens. It can organise and co-ordinate new forms of citizen-controlled economic exchanges that combine both subsistence and market-oriented activities. The movement also needs to find ways to develop and share knowledge that is ecologically literate, gender sensitive, socially just and relevant to context. The whole process should lead to the democratisation of research and farmer-centred innovation systems, in which women play a key role in defining research priorities. Similarly, food sovereignty implies the implementation of radical agrarian reform and gender equitable redistribution of right of access to and use over resources, including land, water, forests, seeds and means of production. The notion of territory, collective rights and self-determination must be at the heart of more gender-equitable agrarian reforms (Pimbert, 2009).

Many women and their networks are now engaged in these processes of transformation. They, and the men they work with, are generating hope and new solidarity as they globalise the struggle for food sovereignty.

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Food security and food sovereignty in Niger
In Niger, West Africa, 65 percent of the rural population regularly faces hunger. International organisations provide food aid and have established a system of food banks. Food is stored in poor villages, where people can sell their crops just after the harvest, and buy food at reasonable prices at the time of food shortages. In this way, people save a lot of money because food prices on local markets triple during the famine season. They have “food security” but remain dependent on foreign support – both to buy food from elsewhere, and to maintain the food-bank system.

When asking people what they would need to secure the production of their own food, the answer is clear. They need regular, reliable access to the same plot of land. Under the present system, traditional Chiefs rotate their plots so that farmers cannot invest in the land they cultivate; therefore they cannot nurture the land. Some plots seem to be productive, but similar land next door seems to be less productive – so some land is underutilised.

Elsewhere in Niger, farmers planted 5 million hectares of trees because they were given the rights to plant, harvest and sell. In agro-forested areas, the land is shadier, more fertile, and as a result, children are better nourished. People can produce their own food and they can engage in the market if they wish to. People now rely on a more autonomous and locally controlled food system.
Gendering Agriculture

Putting women first

By gaining critical control over seeds rural women have recovered traditional landraces and biodiversity in agriculture. Initiatives such as Alternative PDS and Food Sovereignty Trust by Deccan Development Society have not only ensured heightened access to food and nutrition but have also empowered women by strengthening their leadership abilities.

P V Satheesh

Having worked for over two decades with small and marginal women farmers from low income dalit families in the Medak District of Andhra Pradesh, the Deccan Development Society has been privileged to acquire a range of exciting perspectives offered by the women on their agriculture. This paper presents some of those perspectives which turn the arguments by the formal agricultural economists and scientists on their head and present a unique vision of food and farming born in and nurtured from the ground.

The issues raised here confront us with the question whether gendered vision of agriculture is an exercise in cloning men’s concerns on to women or creating and nurturing the authentic women’s paradigm in agriculture especially that of the small and marginal women farmers from ecologically challenged areas. This is the issue that we have been raising for a long time. Since our own work with over 5000 dalit women farmers has spawned rich decades-long dialogues with them, we are in a position to mirror many of their thoughts on the subject.

The women’s agricultural paradigm is marked by a process of humanisation of all things related to farming. Let me illustrate this with the epistemology of the women farmers of DDS:

- Let us start with the Earth. She is invariably referred to as Bhootalli [Mother Earth] by them. She is not a piece of real estate or a lifeless piece of grain producing machine. She is the Mother of life.
- From this point onwards the entire process of crop growth is seen by women in the same manner as the growth of a human child from the embryo stage.
  - When the crops are in the podding stage, Bhootalli Pottatoni Undi [Mother Earth is pregnant]
  - When the grains are filling Paalu taagutindi [they are being breastfed]
  - When they are mature, they are Pottakochindi [ready for delivery]

The examples are umpteen. But they all point to one thing. Women farmers look at the entire farming process as a cycle of life. Food is produced in a cyclical and nurturing process of birth, growth, maturity and regeneration. This vision is as different from the vision of the Green Revolution agriculture as chalk is from cheese. This is the paradigm that women are presenting to us.

Through their initiatives, the women’s sanghams of the Deccan Development Society have assured their full control over their agriculture, continuous access to food and nutrition for them and the children in their families and have heralded community sovereignty over food and seeds. In the following paragraphs, I will try to trace the course which the DDS sanghams charted for themselves over the years.

Heightening the access

Almost from the beginning of its existence, Deccan Development Society has worked towards the issue of access to food for its members. In the early years, this access was aimed at providing them interest-free consumption loans that would enable the women to purchase grains regularly from the PDS (Public Distribution System) [which many of them were unable to do since they would not have cash when their ration would arrive at the village and therefore they would forego the ration] as well as from the market at advantageous moments such as harvest time when prices would be at their lowest.

But, soon DDS realised that this was not the best of the strategies to make them gain food autonomy. Therefore in the second phase...
we started helping them to reclaim the infertile lands that they owned but due to their incapacity to invest on enhancing their fertility, had left them untended. Over a period of ten or more years, a programme called “Eco employment” brought over 5000 acres of marginal lands owned by the members of DDS and created nearly one million person days of employment. Most of all, it increased food availability to each of the participating families by over 400%. The lands that were addressed through this programme had been semi abandoned by the women and yielded less than 50 kg per acre per year. Through the eco employment, women bunded, destoned and at times added top soil to it. This rejuvenated the soils and with the hard work that women put in, the fields started yielding between 200-300 kg of a variety of grains per acre. Since the women brought into their lands their traditional practice of farming millets, legumes and oilseeds simultaneously, it was not only cereals that were coming into the family but also nutritionally rich pulses and oilseeds. Thus, alongside extra food, extra nutrition also entered the family kitchen. This meant that, over 2000-3000 women were able to feed themselves and their families and increase their food and nutritional security four to five times.

Another significant aspect of both these programmes was that the women practiced their own traditional millet based farming on these lands. Therefore, the food that was coming into their family was not rice which is a grain at the lowest rung of the nutritional table. They were now raising and eating a variety of millets that included sorghum [jowar], pearl millet [bajra], foxtail millet, proso millet, kodo millet and barnyard millet.

Community controlled food sovereignty

The third and the most seminal initiative called the Alternative PDS through Community Grain Bank was initiated by DDS in 1994. The basic objective of this jowar [the local millet which is nutritionally very rich] based PDS programme was to ensure local production, local storage and local distribution. This was operationalised by advancing financial assistance to the marginal farmers in 30 villages in the first phase to reclaim their fallow lands through timely cultivation, application of farmyard manure and carrying out other timely farming practices. The agreement was that the money advanced will be returned in the form of grains which are stored in their own village and sold at a cheap price to the poorest families in the villages. All the decisions related to this programme were made by the community. In each village, a committee of dalit women was elected to lead and manage this programme. Thus, the women had taken over the food leadership of their village communities, an extraordinary achievement for them.

In the first phase, this programme was piloted in 32 villages in 1994 involving about 1600 families. This has given DDS a range of experience.

- Through this alternative PDS, the women brought over 2600 acres of fallows under the plough.
- They produced an extra 800,000 kilograms of sorghum in their villages in the very first year of the project. This meant that they were able to produce nearly three million extra meals in 30 villages. Or 1000 extra meals for each participating family.
- Through this act they were able to explode the myth that it is only Green Revolution model of agriculture in high potential areas that can bring food security into this country.
- The programme also generated a massive additional employment in every village that it was implemented. The extent was about 75 person days of employment per acre which roughly worked out to about 8000 person days of employment per village.

Such a massive and sustainable employment generation also has a direct impact on the purchasing power of the poor. The oft-repeated problem with the mainstream PDS is that even when there is enough food in ration shops, there is no offtake because people do not have the purchasing power. The Alternative PDS of the Deccan Development Society has also found a solution for this vexed problem.

- The fodder provided by the newly cultivated fields sustained over 6000 heads of cattle in 30 villages every year.

Over the last five years the DDS has expanded this programme to over 7000 acres in 134 villages in eight districts of AP benefiting nearly one lakh persons. Through this programme the access to food and nutrition by women and children, especially from the vulnerable ranks of the Society has been steadily ensured.

Community Gene Fund

The next major step for DDS Sanghams was the Community Gene Fund programme, which had as its aim, Seed Sovereignty for all the women in DDS communities. This programme has restored critical control over seeds in the hands of the rural women in general and dalit women in particular. In tune with the paradigm of women’s agriculture, this initiative has laid heavy emphasis on
biodiversity in agriculture and recovery of traditional landraces. Within a span of five years about 900 women who participated in this programme recovered over 85 traditional landraces and have set up banks of traditional seeds in 50 villages.

Ten years later, the situation has completely reversed the gender and caste relations within their societies. Every DDS woman now has 10-15 varieties of seeds at her home. Once upon a time, she would have eaten these seeds when she had no food grains at home. But with her food sovereignty assured now, she has moved towards seed sovereignty. Even as every single woman was achieving her seed sovereignty, 55 villages now have ten year old Community Gene Banks managed by one or two women seedkeepers selected by the village sanghams. Each of these Community Gene Banks store between 50-80 varieties of seeds. Anyone can borrow seeds from this bank and return the quantity in the form of seeds. The higher castes and men come to these banks to borrow seeds, thus completely reversing the gender and caste based power relations. Twenty years earlier, it was dalit women who used to go for begging seeds from high caste men. With the reversal of their status from seed seekers to seed providers, dalit women have actually portended a gender revolution in agriculture.

Childcare and nutrition
Apart from the consistent growth in the household nutritional status for women and children, DDS communities have institutionalised some of these efforts. Since 1988, DDS sanghams have run their own Balwadis -- day care centres for their children. In 1996, they redesigned the menu for their children which was predominantly millet based. This has ensured that the children from the low income families in the villages of DDS have access to good food on a regular basis. Many studies done by the Society on the children in the DDS balwadies has pointed to at least 30% to 50% higher nutritional status for them in comparison to the children outside of the balwadies.

Hunger mapping and community kitchens
As if to cap all the other achievements of theirs, the women started doing a hunger map of their communities in 2006 and identified the destitutes and people unable to do any work. In 2007, they had started community kitchens for these people with their own grain and labour contributions. For people who are typically under $2 a day earning, this was indeed remarkable from any angle.

All these interventions that focused on retrieving women’s food and farming systems had irrefutably established their health and nutritional advantages to their families.

In 2006, the DDS took another seminal step by establishing its Food Sovereignty Trust composed completely of nine rural dalit women. The Trust has its own corpus fund to look after the agricultural and food sovereignty initiatives of the Society. The DDS Food Sovereignty Trust has the basic aim of restoring the dignity of the poor by helping them to establish total autonomy over their food production, storage and distribution systems at the community levels.

In the final analysis, by tailoring its agriculture, food and nutritional initiatives to the paradigm of women, the Deccan Development Society has not only ensured their basic needs such as food, nutritional and health security is met but also addressed their strategic needs such as leadership and political roles, articulation space and visibility in the public domain. Many of them are today seen as a unique dalit women group which travels all over the world, as far as Canada, and articulate their vision of food and farming. Thus, by recognising and implementing the women’s vision of agriculture, DDS has completely altered the discourse on Women and Agriculture.

(Extracted from the paper presented in the International Food Policy Research Institute Workshop on Women in Agriculture in South Asia, Organized by Aga Khan Foundation (12th to 14th August 2008).

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Shahbad block of the Baran District is one of the most underdeveloped regions of Rajasthan. It is a tribal block with entire population living in rural areas. The most prominent communities among the Scheduled Tribes are Saharia and Bheels. Their staple food is wheat, corn and pearl millet. The Sahariyas primarily depend upon forest for their livelihood; agriculture is of secondary importance. In Kharif maize, pearl millet, sesame, urad, soybean, arhar and ground nut are cultivated. Chick pea, mustard and wheat are the major crops grown during winter. Owing to disguised unemployment and lack of livelihood opportunities, large scale migration takes place in this region. Low purchasing power accompanied by low productivity of livestock and land, lack of access to natural and economic resources, the rising cost of agricultural inputs, low price of farm output and vulnerability to erratic climate conditions have greatly increased the level of food insecurity in the region. The situation worsened at times of drought when people were forced to eat grains of Sawan (Echinocloa frumentacea).

Since agriculture is of secondary concern, people of Sahariya community have not been in the habit of saving seeds for future use. Some villagers stored their seeds at individual level and others purchased from shop keepers or other villagers at the time of sowing at a higher price. Often the ‘seed’ saved for future use would be used as ‘grain’ at times of famine and they may not have seed to sow. Lack of good quality seed was another problem that resulted in low productivity. Moreover, the advent of genetically modified crops have brought the seed market in the clutches of multinational companies. In this context, preservation of indigenous seeds and varieties seems to be a promising approach to conserve the biodiversity as well as to retain the access to productive inputs like seeds.

To help the tribal communities to tide over the problem of seed and enable them to regain their seed as well as food security, CECOEDECON, an NGO started promoting the concept of seed banks with the communities. CECOEDECON (Centre for Community Economics Development Consultants Society) supported the communities under the project “Peoples Initiatives for Food Sovereignty in Rajasthan” supported by OCAA for the period from January to June 2006.

Setting the seed banks

Since women are associated with the selection of seeds, storage and management, they were organised into SHGs to manage the seed banks. The organization also equipped and motivated the people to handle the responsibilities to run the seed bank in an efficient manner. A few selected members were trained in storing and managing the seed banks and were taken on an exposure visit to the seed banks in Banswara.

Seed bank committees are formed. All the decisions and actions are noted in the SHG records and maintained by them in their Dhani/ village. Terms and conditions are decided by SHGs for sustainable development of the community-based organization.

The committee is authorized to take decisions regarding seed storage- whether to store more seeds or to distribute the seed to the needy people of the village. The collected seeds are distributed to the SHG members based on their requirements. Surplus seeds, if any, would be distributed to the other needy farmers with the permission of SHG members. In this whole process, SHG members are responsible to collect the seed again and sustain their seed banks properly. A system of documentation of seed transactions has been developed and the groups have been trained on recording the transactions.

Tribal women attain food sovereignty through seed banks

Tribal communities of Baran district have been able to regain their food sovereignty by preserving local seeds. The women groups have revived their traditional seed storage techniques to preserve seeds in the seed banks. Seed banks have provided assured access to seeds even during the times of drought.

Veena Vidyadharan and Manoj Kumar Tiwari
income. Increased the area under cropping and thereby the production and now assured they would get seed. Timely availability of seeds has area. Presently, all the farmers are able to because farmers are seed bank, only 15 out of 20 farmers could sow in the command major impacts of seedbanks. Before the establishment of the seed bank, only 15 out of 20 farmers could sow in the command area. Presently, all the farmers are able to because farmers are now assured they would get seed. Timely availability of seeds has increased the area under cropping and thereby the production and income.

**Table 1: Traditional practices**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Indigenous methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>➢ Selection of good quality of cobs.</td>
</tr>
<tr>
<td>Pearl millet</td>
<td>➢ Keep the cobs in sunlight to 8-10 per cent moisture.</td>
</tr>
<tr>
<td>Sorghum</td>
<td>➢ Mix the dried cobs with leaves of Neem and Ash.</td>
</tr>
<tr>
<td>Sesame Koda, Mustard, Tara Mira</td>
<td>➢ Store in locally prepared storage bins (Pohari).</td>
</tr>
<tr>
<td>Gram Soybean</td>
<td>➢ Selection of big/good quality of grain and dried.</td>
</tr>
<tr>
<td>Paddy</td>
<td>➢ Mix the dried grain with leaves of Neem and Ash.</td>
</tr>
<tr>
<td>Kali (type of paddy)</td>
<td>➢ Store in locally prepared storage bins (Pohari).</td>
</tr>
<tr>
<td>Black gram</td>
<td>➢ Selection of big/good quality of grain and dried.</td>
</tr>
<tr>
<td>Green gram</td>
<td>➢ Mixed the dried grain with paste of red soil.</td>
</tr>
<tr>
<td>Pigeon pea</td>
<td>➢ Store in locally prepared storage bins (Pohari).</td>
</tr>
</tbody>
</table>

The income from sale of seeds is added to the SHG’s account. The committees follow the system of ‘dana’ in which 1 kg of seed is replaced by 1.5 kg. Seeds of pearl millet and maize are stored mostly; the committees also plan to keep seeds of other crops like pulses.

**Seed storage techniques**

Women are been reviving their traditional ways of storage. For example, in Amkho, SHG members decided the best way to preserve white maize seed was to save the entire cob. Villagers used *Siyari* wood and make a pot. This is coated with a paste of clay, soil, cow dung and straw, both inside and outside. Some villagers mix goat urine to the paste, as it acts as a pest repellant. Within 15-20 days, storage bin is ready for use. The storage capacity of the bins varied according to the seed availability as well as requirement. Seed storage bins are fumigated with neem leaves.

The materials used for seed treatment included locally available resources like neem leaves, wood of Bamboo, ash etc. (Some of the traditional practices being followed are presented in the Table1).

A total of 49 seed banks were established in the targeted 50 villages up to June 2006. These were established at individual level in the house of selected members who had the facility of seed storage. About 750 women from 63 SHGs benefited through this intervention and 10,223 kg of seeds of different crops were collected. In these banks, seeds of different crops such as maize, pearl millet, black gram, pigeon pea, coriander, groundnut, sesame, and rice were collected, in order to meet the demand of SHG members in the existing cropping patterns.

**Impacts**

Control over the time of sowing and dramatic increase in crop area owing to availability of good quality seeds has been one of the major impacts of seedbanks. Before the establishment of the seed bank, only 15 out of 20 farmers could sow in the command area. Presently, all the farmers are able to because farmers are now assured they would get seed. Timely availability of seeds has increased the area under cropping and thereby the production and income.

The banks also serve as an insurance against drought. Even during times of drought, the farmers are assured of seeds to sow, which was not the case earlier.

Before the establishment of the seed bank, Shahpur farmers were buying black rice from market or borrowing from others, which was not as nutritious or productive as the white rice they store now in the bank. The white rice variety is also less water intensive.

Currently all farmers in the village use the seeds from the bank. Individual farmers created their own wheat seed banks after seeing the community rice bank leading to even greater seed security for the village. Seeing the success of the SHG seed bank in Shahpur, four seed banks were started by groups of two to three farmers in the village. There is also a significant increase in animal fodder.

With increased confidence of seed selection and storage; the Nihal Devi SHG for instance, is planning to grow soybean next year-new to the area.

SHGs are also aware of the challenges in managing these seed banks. Frequent droughts leading to crop failure and poor recovery of seeds and maintaining genetic purity of seeds are the important ones among them.

**Acknowledgement – OXFAM**

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In Mozambique, farmers as well as farming organisations are becoming more aware of the strength of their local food production systems, and the fact that these help them reduce risks. At the beginning of this decade, some farmers tried to improve their incomes by participating in cotton and sweet pepper “market outgrower schemes”: they obtained packages of seeds and chemical inputs from extension agents of big companies, who then bought up the harvests at the end of the season. Farmers were paid for their production, minus the cost of inputs. But this experience left many farmers in debt because of high investment costs, and in the process of specialising in a particular crop, they became vulnerable to an uncertain climate and volatile markets.

Margarita Amisse from Natikiri participated for the third time. She brought groundnuts to the market and returned with sesame, cowpeas and rice. She also bought maize seeds for a neighbour. According to Margarita, the benefit of the fairs is that the seeds are less expensive than in the shops, and the variety is much greater as well.

At the same time, food culture has been changing. Local crops such as cassava and sweet potato, as well as cereals such as sorghum and millet, are being increasingly substituted in the people’s diet by crops that are not locally produced, such as potato and wheat.

With these challenges in mind, the Union of Agricultural Cooperatives of Nampula (UGCAN) organised its first seed fair in 2002 in the province of Nampula in northeast Mozambique. UGCAN’s objectives were to: 1) create an opportunity for family farmers to exchange genetic material which was adapted to local conditions and customs; 2) promote the diversity of seeds used by farmers; 3) exchange experiences on the production of varieties adapted to local conditions; and 4) make farmers aware of the importance of controlling their own seed.

Since then, membership of UGCAN has grown to 2000 farmers. It was therefore decided in 2008 to replace the single central fair with five simultaneous regional fairs, in order to help farmers participate more easily, closer to home. On average, about 140 farmer members (of which 40 percent were women) participated in each fair – and 700 members in total. Even more people benefited from the fairs as other, non-member farmers from the areas visited them and brought back materials for their neighbours as well. Practically all of the material (over 95 percent) at the five fairs was exchanged.

Adelaide Mesquita from M’puto participated for the fourth time. She brought groundnuts of the fast-growing Virginia variety and returned with cashew tree seeds and jugo nuts. The variety of cashew she acquired is known for growing fast and for having larger nuts. The jugo nut variety she obtained matures quickly (in two instead of three months). What she likes about the fairs is the diversity and the possibility to recover seeds that are lost when production is low. At the end of the fairs, non-member farmers from the area always come by to try to get seeds too – which can attract new members to the farmers’ organisations.

Diversity is growing due to seed fairs
Genetic material is crucial for all agricultural production systems and its management determines to a large extent the food sovereignty of a given community. In principle, all family farmers in Mozambique save their seeds because, as they say, “if you don’t
save seed, you are not a real farmer”. Managing seed is, however, a dynamic process. It is normal for farmers to exchange seeds with their neighbours and in this way create small differences in seed stocks between neighbouring farms. Seed fairs give farmers a greater opportunity to increase seed diversity, as they can exchange with colleagues further away.

This is certainly the case in Nampula, as the fairs have come to offer more and more diversity over the years. In 2008, each of the regional fairs had more than 20 different varieties on display, and the following produce was represented:

- **Cereals**: maize, rice, millet, sorghum, marupi (type of wild amaranth grain)

### Why farmers value seed fairs

- In general, farmers value the diversity available at the fairs, which is greater than that in the shops or from local distributors. In Nampula, the fairs offer more and more varieties over the years. Two examples are the supply of ‘Virginia’ groundnuts as well as the brown-streak-resistant variety of cassava: in the beginning, these were only brought by farmers from a particular area, but in recent years, more farmers from other zones also bring them to the fairs.

- Participating farmers do not look for “high-yielding” varieties but rather seek out varieties that increase the probability of a yield (crops that have a short cycle and are early maturing or pest resistant). Fast-maturing crops found at the fairs, such as groundnuts, maize, beans, sorghum, cassava and millet, attract much interest from farmers. This material helps to reduce the four-month wait for staple crops to mature once the rainy season begins, and so reduces the period of food scarcity. Resistance to disease and pests is another important factor – for example, a variety of cassava that is more resistant to brown-streak and certain varieties of millet and sorghum with long and flexible heads, making it difficult for birds to get at them.

- Farmers also value culinary qualities such as shorter cooking time and sweet taste, as in certain varieties of cassava, for example.

- Fairs provide an opportunity to recover “lost” varieties. Varieties become lost because of poor production, which obliges the family to eat or sell what they have saved. In Mozambique, this is often the case with maize and groundnuts as they are both cash and food crops and relatively easy to sell in times of crisis. Marupi, a wild cereal traditionally used in porridge, is another example. The reason it appears at the fairs might be that it no longer easily reproduces naturally.

- Farmers are curious and have a drive for innovation, and are therefore eager to get to know new varieties.

- Farmers appreciate the easy access to seeds. At the Nampula fairs, seed is exchanged or otherwise sold at a symbolic price.

- Seed fairs allow farmers to actively look for and exchange knowledge regarding seed.

- Finally, the farmers appreciate having a space of their own.

### Ana Leite from Murrupula participated for the first time and obtained a variety of light-skinned cassava. This variety is not bitter and can be eaten raw, which made it a much sought-after product at the fair. Ana Leite took home maize seeds and a cutting of a kind of sugarcane she had never seen before, so she was also given information on how to cultivate it. For Ana, the fairs offer diversity and an opportunity to discover new varieties.

At one fair, participants identified three varieties each for maize, groundnuts, cassava, sorghum and rice and two varieties each for fava and jugo nuts, sugarcane, pumpkin, sweet potato, and millet.

In addition to the direct aspects of farming, seed fairs offer a way to appreciate and strengthen farmers’ knowledge and local culture. They also provide an instrument for farmers to mobilise members, strengthen self-organisation, increase visibility, and show a novel approach for local organisations.

### Further reading

The FAO (Food and Agriculture Organization) produced a useful handbook in 2006, based on its LINK project (Gender, biodiversity and local knowledge systems for food security) in Tanzania. Following two studies and four seed fairs, FAO prepared simple guidelines for rural local knowledge systems for food security) in Tanzania. Following two studies and four seed fairs, FAO prepared simple guidelines for rural organisations.

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#### Further reading

The FAO (Food and Agriculture Organization) produced a useful handbook in 2006, based on its LINK project (Gender, biodiversity and local knowledge systems for food security) in Tanzania. Following two studies and four seed fairs, FAO prepared simple guidelines for rural communities on how to organise a community diversity seed fair: FAO, 2006. **Community diversity seed fairs in Tanzania: Guidelines for seed fairs.** Report no 51, Rome, Italy. Downloadable at: www.fao.org/sd/dim_pe1/pe1_060701_en.htm
In Focus

GM contamination

Devinder Sharma

Farmers have been fighting the menace of weeds, but the newly emerging superweeds pose a much bigger threat.

Several years back, the late P N Haksar said in an interview that all the estimates of silt deposition in the big dams that the engineers have time and again projected have gone wrong. I recall vividly that he pointed to a report of the Central Water Commission, which found that the silt deposition rate was 500 times more on an average than what was initially projected.

The life of the big dams therefore turned out to be much shorter than expected, and all projections of irrigated area also went awry.

This is not only true of the big dams and hydel projects. Agricultural scientists too have made projections, which have time and again turned out to be a gross underestimate. I am not only talking of the crop estimates that are made before the harvest, but invariably you find that the projections for crop yield and productivity too fail. More recently, most studies estimating the distance the pollen of genetically modified (GM) crops flows, and which leads to cross-pollination with related species, have proved to be wrong.

Genetically modified crops like Bt cotton, for instance, have a gene from a soil bacteria taken out and inserted in the cotton plant. This gene produces poison within the cotton plant, and when the insect feeds on the plant it dies. This gene can however flow with wind or can be carried by insects like honey bees and can cross with the related or native varieties of cotton being cultivated in the neighbourhood.

Contamination of wild species assumes importance in the wake of the commercial approval pending for Bt brinjal — India’s first GM food crop. Brinjal is normally a cross-pollinated crop, the extent of cross-pollination varying between 5 to 48 per cent, and therefore poses more threat of contamination. Such contamination of normal plants with GM plants can create weeds that cannot be controlled with herbicides. These are called superweeds. Let me first explain what are these superweeds, and why farmers should be concerned. Farmers have traditionally been fighting the menace of weeds, but the newly emerging superweeds pose a much bigger threat because they cannot be controlled with any chemical pesticide. In wheat, for example, farmers encountered mandusi (technically called phalaris minor) weeds, but these could be kept under control by spraying herbicides. Even though these herbicides are expensive and add to the farmers cost of cultivation, still farmers do have a way to eliminate mandusi. Imagine if the wheat field had weeds, which could not be controlled with any chemical. Such weeds would turn the crop fields into a wasteland. This is exactly what is happening in many parts of America. And this is what farmers in India need to be worried about. Scientists will tell you that GM crops do not cause contamination, but that is not true.

Pigweed

In southern America, more than 1,00,000 acre in the province of Georgia is seriously afflicted by a new evil superweed, called pigweed. This weed has also appeared alarmingly in other provinces like South Carolina, North Carolina, Arkansas, Tennessee, Kentucky and Missouri. Such was the devastation that more than 10,000 acre in the Macon county of Georgia province had to be abandoned by farmers.

In other words, Georgia province is fast turning in an unmanageable wasteland. “Last year, we hand-weeded 45 per cent of our severely infested fields,” said Stanley Culpepper from the University of Georgia. These superweeds emerged after farmers had undertaken intensive cultivation of Monsanto’s GM soyabean and cotton.

In India too, scientists are denying any threat from superweed invasion. Ironically, the US Department of Agriculture too had ruled out any possibility of large scale contamination from GM crops. And yet, the US faces a major problem turning farmlands into weed battlefields.

Superweeds have now appeared in 28 countries where GM crops are cultivated. At least, more than 30 known weeds, which were earlier manageable, have now turned into superweeds. So much so that a US federal court has ordered the seed multinational Bayer Crop Sciences to pay $2 million to two farmers in Missouri province whose rice crop has been contamination by a GM rice variety under research trials. There are more than 1,000 lawsuits by farmers pending in the US courts against GM seed companies.

Estimates of total cost incurred due to contamination of normal crops with genes from GM crops, range from $741 million to $1.28 billion. Bayer Crop Science has admitted that it has failed to check contamination of normal crops despite following strict regulations and best practices. In India, unfortunately there is no liability clause that fixes the cost for contamination that companies must pay. It is only recently that the supreme court, which is hearing a PIL seeking a moratorium on GM crops, has asked the government to respond as to why the field research trials cannot be held under controlled conditions. But this measure itself is not enough, as the US experience shows. There has to be a financial liability that must be ascribed on GM seed companies.

Source: Deccan Herald, 31.01.2010
Livestock projects in southwest China

Women participate, everybody benefits

Women play an essential role in animal production in the rural northwestern region of Yunnan province, China. However, women are often left out of extension activities and training opportunities. A recent project has found various ways to better target women farmers. By increasing their participation, as well as the professional training of women field workers, risks in livestock production were reduced and household economies improved. Women farmers also became more confident and aware of their rights as decision-makers on the farm.

Shen Shicai and Qian Jie

Livestock production serves various crucial roles in the livelihoods of marginalised and poor people. It contributes to local diets, provides cash, draught power, organic fertilizer, and is a means of transportation of heavy equipment. Those whose livelihoods are most dependent on animal husbandry are the poor, especially women, in remote mountainous areas that have little access to information, infrastructure and employment opportunities.

Gongshan county is just such a region, situated in the northwest of the province of Yunnan, China. To the west, Gongshan borders Burma and to the north, Tibet. Gongshan is a typical agro-pastoralist region and is home to a great variety of cultures and considerable biodiversity. In 2008, 32 percent of farmers’ incomes came from crop products and 29 percent from animal husbandry. Crops include maize, rice, vegetables, potato and cash crops. Livestock consist of yaks, cattle, sheep, goats, pigs, horses and poultry. Crop cultivation and livestock production are strongly linked. Livestock also has a social function in this area, such as for gift-giving (exchange), and in wedding, funeral and religious ceremonies.
Women’s agricultural roles in Gongshan county

Women and men have different roles and decision-making responsibilities in their agricultural activities. In general, women farmers are mainly responsible for subsistence crops such as maize, rice, vegetables and potato, whereas the men mainly carry responsibility for cash crop production. Subsistence crops are cultivated near the home, mostly for food for the family and livestock fodder. Cash crops grow relatively further away from the village and are usually sold on the market. Men make more of the decisions regarding purchase and sale issues for both cash and subsistence crops.

In livestock production, women mostly raise pigs and chickens, whereas men are usually responsible for feeding and grazing of cattle, goats, sheep and horses. Both men and women are responsible for the care of their respective animals, preparing fodder, cleaning the stable, disease treatment, and buying and selling. Male farmers are also responsible for heavy projects such as building fences, pens and silos for silage, while female farmers work on tasks such as making barrel silage fodder and grass production. In the summer months, men accompany the cattle, goats and sheep to grazing grounds in the mountain grasslands, while women stay close to home, where the pigs and chickens are kept. In the winter, however, the animals are brought back, and men and women share the responsibility of carrying manure and preparing fodder. This division of roles indicates that men have decision-making rights over the higher (monetary) value animals, while women care for the livestock having less value. More recently, however, there has been an increase in the number of young men travelling long distances to engage in labour, leaving more and more young and old women in charge of all agricultural production and other activities.

There are certain limiting factors restricting the development of animal husbandry in Gongshan, including disease, lack of green fodder sources in winter and spring, alpine grassland degradation and low local extension services. The project “Enhancing agro-pastoralist livelihoods in NW Yunnan province” was therefore initiated in 2003 by the Center for Biodiversity and Indigenous Knowledge (CBIK) to identify and try to solve these problems. An important part of the project was a study carried out in the following year to clarify social factors and gender issues in this country. The results of this research were useful for determining how new policies could be implemented.

Men targeted, but for women’s activities

From conversations with village leaders, government officials and women’s groups, it emerged that men often have access to more opportunities for receiving information, training and extension services in the community than do women. Government extension programmes, however, are usually focused on the most common agricultural products produced by women (i.e., pigs, chickens and subsistence crops), and less on larger livestock and commercial crops. But because women do not participate in these programmes,
extension has had little impact on the capacities, social relationships and economic status of women. As a result, household economy and food security (which depends to a large extent on the contribution of livestock, in the form of meat, oil and milk) have not improved.

**Targeting women in the office and in the village**

One way to improve services to women farmers is to strengthen the capacity and role of female staff at extension agencies, such as the Gongshan Animal Husbandry Bureau, as well as local veterinary stations. Field technicians carry out field inspections, on-the-spot training, and disease treatment, as well as organising farmers’ meetings in villager experimentation groups (VEGs). Following the participatory technology development (PTD) approach, male and female workers were divided into single-sex or mixed groups, which were responsible for extension work in the VEGs. The extension staff, both men and women, visited and interviewed villagers’ groups each month to learn what developments had taken place, how villagers understood and interpreted the information they received, and what the impacts of introduced technologies were, and then shared their findings at VEG meetings. Besides participating in research, the women technicians also received training in special topics, such as ethnomedicinal and traditional knowledge, livestock marketing and fodder resources. So far, 13 women have been trained successfully at four agencies (76 percent of the total female staff).

Another way to enhance the capacity of women farmers to solve their farming problems was to establish women-only villager experimentation groups. Through these groups, women farmers gained more opportunities to work together, share their experiences, express their opinions and also train new groups.

**Different strategies for targeting poor farmers**

Due to economic and social constraints, poor farmers in the community were only rarely able to participate in the project’s activities. This was a special concern for the staff, who assessed the current situation and issues of poor farmers. To encourage their participation, the project offered more economic, social and institutional support to them than to wealthier farmers. The most important strategy for targeting poor farmers turned out to be the establishment of a “technology innovation fund”. The fund was managed by a committee composed of only poor farmers, with at least half of them being women. The committee was responsible for establishing regulations for the fund, such as allocation of loans, repayment, and monitoring. In addition to this financial support, the project offered free training to poor farmers and gave them more opportunities to speak out at monthly and seasonal meetings. According to interviews with poor farmers, these strategies and activities played an important role in their lives, solving their immediate financial needs and developing community cohesion. In fact, some of the regulations and approaches developed by the farmers’ committee were subsequently applied by the local government on a larger scale.

“We can do anything now!”

After four years, all villages now have more female than male villager experimentation groups, with 67 percent more female groups in total. Women farmers now have easier access to new information, training and extension assistance at the community and county level. According to the 2008 assessment, 95 percent of villagers interviewed (men and women) reported that women played important roles in the project’s activities. According to many, few women liked to attend community and extension activities prior to the project, and even when attending the meetings, they said nothing. Four years after implementing the VEGs, many villagers confirmed that the women had improved their capabilities, social position and economic benefits. For example, animal death rates were reduced by organising the livestock medical fund and establishing village veterinary monitoring and vaccination supply systems. Also, growing green fodder through bio-fencing and implementing silage-making were instrumental in solving fodder problems. As some of the women villagers said: “We can do anything now – even the men’s work; we should have the same rights and opportunities in community activities as men. We have more confidence and greater awareness than before”.

Each year, several (monthly, half-year and annual) village meetings are held in different parts of Gongshan. At these meetings, VEGs and female and male extension workers participate actively, sharing their experiences and new knowledge and designing plans together. Good relationships and a broad network have been established through these meetings, and have resulted in women farmers being more visible and being asked to help teach new participants in other villages.

Although CBIK held very few formal gender training events for farmers and field workers, the organisation of VEGs, the innovation fund and the various meetings, all helped to increase the participation of poor and women farmers, and the capacity of women extension workers. This experience shows that the more women who participate in the development process, the greater will become the capacity of women farmers, resulting in stronger livestock production, improved household economy – and ultimately, the achievement of food sovereignty.

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**Shen Shicai and Qian Jie**

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CBIK is a member of the global LEISA Network. This centre publishes a Chinese edition of LEISA Magazine. For more information, please see www.leisa.info.

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Women take control of their food security and sovereignty

Understanding the issues and perspectives of the community, giving voice to their ideas and facilitating institutional building are key in bringing about a sustainable and equitable change. Bringing a ‘positive change in gender and power relations’ remained central to the efforts made by Utthan in influencing change.

Naresh Jadav and Pallavi Sobti-Rajpal

Consisting nearly 70% tribal population, the Dhanpur block in Dahod district was once a self-sufficient unit. Since the mid 90’s, use of chemical pesticides, fertilizers, and hybrid seeds has increased water usage, reduced soil fertility and increased input expenditure rendering agriculture unsustainable. Declining agricultural production, degraded natural resources and reduced forest cover, has led to indebtedness and forced migration for food and livelihood. Today, Dhanpur block presents a picture of degeneration and drudgery. With external forces playing a significant role, agriculture production is no longer based on local communities’ decisions of production and consumption patterns. Moreover, the degeneration of traditional culture, wisdom and practices supplemented by inappropriate government policies has made agriculture more external oriented.

Under such changing situations, women are the most affected. They have over time borne the double brunt of degeneration of natural resources and decline of traditional culture. Work drudgery of tribal women increased due to water, fodder and fuel wood collection. Women had to travel to distant places and spend long hours in search of fodder, fuel wood and water, which had a direct impact on their health. Feminization of poverty and erosion of traditional tribal culture diminished the status of women. The perpetuation of stereotyped gender roles and work resulted in denial of opportunities to participate in the processes of empowerment leading to low self esteem and confidence.

Consisting of a large number of tribal women, one of the important initiatives taken up by Vanita Shakti Mahila Sangathan (VSMS) has been to improve the livelihood security of women with a biodiversity approach. This group is being supported by Utthan, an NGO. The objective was to improve incomes, reduce drudgery and enhance productivity by creating women owned and managed productive assets and creating support mechanisms. The strategy was designed to integrate government programmes and ensure quality and timely access, through local institutions like the Federation, responsive to gender and livelihood needs of the area.

Three biodiversity working groups were formed to take leadership in managing assets towards food security. The biodiversity groups and the federation leaders were thoroughly trained on various aspects. This significantly contributed to the strengthening of the federation members as leaders and the federation as an institution. Exposure visits were organized to areas where such initiatives have been taken up viably. These efforts increased women’s skills, confidence and information base. Alongside, an institutional set up of biodiversity groups was established within the federation to regularly plan, execute and discuss the working of the biodiversity banks, strategies and actions around access to seed/fodder/fuel; accountable to the Representative Council and the Executive Committee of the federation, which monitor their work. This led to improved managerial skills and values of good governance. The biodiversity working groups, active women leaders and the

Using traditional method for storage of traditional seeds
Executive Committee of the women’s federations took ahead the entire process.

**Women owned and managed assets-fodder banks and seed banks**

The federation has been able to provide affordable, quality fodder (local varieties like bhatthori and daanang) to nearly 300 families. 37500 kg. of local and less water intensive Bhatthori and Bajri fodder was organically produced through 65 demonstrations on farm bund and in between crops. This banking initiative increased women’s scope of access to fodder locally. They confidently linked up with Government cattle schemes to augment their incomes/use at home. VSMS and Utthan successfully influenced commercial fodder crop growers in 3 villages to shift to organic cultivation. This reduced drudgery and conflicts in fodder collection from the forest, reduced indebtedness, augmented income/disposable income and improved nutritional status of livestock.

Over the last three years, 3 seed and 3 fodder banks were set up in 3 clusters amongst 42 villages in Dahod district. Site selection, suitability, risk assessment, identification of traditional and sustainable storage methods were discussed and selected by the women members before finalising these spaces. These banks were aimed at helping people who did not have the purchasing power to access fodder and seed particularly during the times of emergency.

Traditional seeds like black gram (*thuthiya urad*), wheat (*lokvan gehu, sharbati and tuuki gehu*), gram (*dahod peela channa*), maize (*saathi, kathori*) and mag were provided to nearly 400 families. This yielded an output of seed, nearly 70% of which is organic since it was purchased mostly by members of women’s federation who were involved in the vermi composting, herbal pesticide preparation demonstrations. *Kala mag*, an extinct variety of seed was sourced at a slightly higher price from interior villages. Four demonstration plots yielded 40 kg. of *Kala mag* which were bought into the bank for further sale. This reduced indebtedness, demonstrated shift from hybrid to traditional seed varieties and led to the preservation of 6 local varieties of seed, thus conserving local biodiversity.

The setting up of banks has helped in conserving traditional storage practices and has empowered women by strengthening their confidence in managing their assets. Also, communities were able to differentiate a poor grain of high yielding variety from a rich grain from traditional farming system.

**Promotion of sustainable agricultural practices**

Shifting to sustainable farming is a better alternative, although slow. This could be possible by shifting from hybrids to traditional seed varieties. Also, women became aware that excess withdrawal of ground water eventually leads to drought and desertification pushing them to depend on un-sustainable migration. Women also evolved alternatives to improve productivity in traditional seed varieties as well as its market.

Over the years, 225 families have shifted to organic cultivation, either partially or completely. 240 leaders were trained in vermi compost production and herbal pesticide preparation. The first output of the 180 vermi compost demonstrations provided nutrient support to 270 acres, and this pattern would continue for another 10-15 years. The prevention of use of chemical fertilizers on the 270 acres of land on which vermi compost was used also contributed to the conservation of environment. It prevented the use of 40,500 kg. - 1,08,000 kg. of DAP and 67500 kg. of urea which would have otherwise been used on this expanse of land. The economic equivalent of this means a total expenditure reduction of Rs. 13,63,500. This helped to reduce the input cost of agriculture, increasing disposable income, reducing indebtedness. This also led to decrease in greenhouse gases (not directly measured) due to reduction in fertilizer application in the area to a small extent.

**Access to fuel wood**

Women raised 38,000 saplings in the nursery and helped in reintroduction and preservation of 5 varieties of medicinal plants (*ashwagandha, amla, kanski, shatatavi, sahijan*). In return for their labour, the federation provided women with an equivalent amount of fuel wood. By linking up with Government schemes, the women groups planted 1,00,000 fuel wood varieties covering 50 hectares in 10 villages. This plantation is expected to yield 5,58,000 kg. of fuel wood per year, supporting requirement of 1,24,000 families for 10-15 yrs. Afforestation in 4 villages with local varieties of grass (*jjiyo, dhamaan, hamata*) were taken up. This contributed to the reintroduction and preservation of 5 varieties of medicinal plants, increase in green cover, reduced drudgery, conflicts and health impacts in fuel wood collection from the forest.

**Influencing the Government**

The federation established links with local Forest Department, District Administration, Departments of Agriculture, Tribal Development, Women and Child Development. Resources
amounting to Rs.10,00,000 were mobilised for vermi composting, medicinal nurseries and fruit raising through existing government schemes. The local administration visited the work of the federation and advised scale up through linkages with the Government. This is being followed up by the Federation and Utthan. Federation leaders influenced local government to fulfill fodder requirements during acute fodder shortage in the last two years after the stock was exhausted in the fodder banks owing to increased demand. This entire process led to the opening of the Block level Fodder Depot. Nearly 2,500 people were able to access fodder at an economical cost. The Federation prevailed upon the officials and ensured that it is disbursed at a reasonable rate. These efforts helped to ensure and monitor fulfillment of State’s responsibility in times of crisis. Linkages with Government Departments also helped to disburse information on various Government schemes in the community. Resource mobilization for various activities provided a fillip to sustainable agriculture, augmented incomes, preventing out migration to a small extent. The federation thus became a conduit for resources to marginalised people and provided additional forward/backward linkages like training, technical expertise, perspective building.

Scaling up

With support from the Small Grants Programme - Global Environment Facility and linkages with available Government schemes under the Tribal Sub Plan, the women’s federation has been able to influence considerably the lives of people, especially the women. The success of the first phase showcased the economic viability of the initiative, sustainability mechanisms and collective management skills of the federation. Owing to the demand for similar activities from other villages and with the support of Utthan, the initiative was scaled up based on the lessons learnt from the previous phase. This work was scaled up from 24 villages in the first phase to 18 new villages which showed readiness to set up similar livelihood institutions and related activities. Effective tools like the pamphlet on methods of preparing organic pesticides to control pests, screening of Samasya aapni, ukel aapno were used for increasing awareness.

The Federation influenced local Village Panchayats as well. Around 10 village Panchayats passed resolutions to support these activities proactively and micro planning for up scaling work was taken up.

The results of the various demonstrations done by women and men leaders in implementing sustainable agricultural practices in local farming and fruit raising through use of vermicomposting, organic manure, herbal pesticides has showed a shift towards sustainability and food security to an extent. To strengthen the overall initiatives of sustainable farming, conservation of forest ecology and biodiversity and to secure livelihoods of marginalised communities, the federation is in the process of forming an Area Resource Group (ARG) which can take these initiatives ahead, identify and support people in implementation and monitoring and link their product to the market.

Today, the Vanita Shakti Mahila Sangathan continues to strengthen its understanding on the issue through experiential learning. With the advent of threatening environment of climate change and increased use of genetically modified seed varieties and pesticides, women strongly feel the need to continuously resist these moves by promoting conservation of traditional agricultural and life patterns. This, they believe, will enhance their ability for sustaining livelihoods. This has been and will continue to be a challenging process wherein women are constantly renegotiating ‘social contracts’ with their family, community and the State.

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LEISA India readers are not just readers – many of them are promoters and practitioners of LEISA. While practitioners seldom share, our reader practitioners have been patient as well as enthusiastic in sharing how they have used the content of the magazine.

Inspiring cases is a collection of cases indicating the diversity of influence of LEISA India magazine on the minds of readers. We have included the narration of experiences by the readers themselves as well as three interviews. We earnestly believe that they in turn would inspire many more to promote and practice LEISA.

To view the cases please visit: http://india.leisa.info
Building self sustenance
A small farmer’s success story

Earth Trust, an NGO in Nilgiris has helped a number of small holder farmers realize the potential of organic farming and collective marketing. Here is a case of a woman farmer who benefited in terms of crop quality, crop diversity and better income.

Vanya Orr, Arun Kumar, Gita Kreneck, Siva Kumar and Mohan Kumar

Shanti, a shy woman with a warm smile, lives in Kollimalai Oran, a small village in the hilly area of Nilgiris in South India. She owns a small plot of land (0.2 acres) which generates stable income for the family. She has been growing vegetables like beetroot, carrots, brussels sprouts, spinach, cabbage and broccoli with the support of her husband, Mohanasundaram.

All this has started only a few years ago, during 2006. Till then, Shanthi was following the conventional chemical farming which she had seen her parents doing for the last three decades. In fact, she did not know that there were other ways of farming. They practiced monocultures of carrots, potatoes and broad beans. These were in turn sold to unreliable middle men at wildly fluctuating prices.

Turning point
In 2006, The Earth Trust, an NGO based in the Nilgiris and working in the surrounding areas had discussions with Shanthi’s family about organic ways of farming. Mohana sundaram was motivated and wanted to give it a try as he recollected that his father was doing such farming 30 years ago. He realized that farming without chemicals would be economical as well as good for health.

With the support of The Earth Trust, the family sowed carrots over their whole plot. But, soon disaster struck. The carrots succumbed to fungal disease and the green tops died off. Natural remedies like Biodynamic Preparation 501, equisetum tea, turmeric tea were tried without success. Shanti was disillusioned and wanted to go back to chemical farming. To their astonishment, in a few days, the carrots began to sprout fresh leaves, giving a good harvest. There was no looking back after that.

Sovereignty through diversity
The carrot crop was the last time that Shanti and Mohanasundaram grew a monocrop. They switched to mixed cropping, growing many crops together. Their plot always had at least six different vegetables, rotated through a total of 16 different crops. The diversity of vegetables and staggered sowing times, ensured continuous supply of different types of vegetables to the family.

Innovative marketing strategy
Meanwhile, to develop an ethical marketing system which ensures a good return to the farmer and a quality product which is affordable to consumers, The Earth Trust facilitated the formation of organic farmers association called BiOGaIN (Biodynamic Organic Growers Association in Nilgiris). The membership to this association was open to all interested organic farmers.

The farmers meet monthly to plan what crops each farmer will grow during the coming period. The farmer members meet half yearly to fix a fair price for their produce, which remains stable for the next six months. That way, they can predict what they will receive and plan ahead accordingly. Twice a week farmers take their harvested produce to the central distributing centre in Ooty. The Earth Trust representative then sells the produce to locals and buyers in larger centres. If the market prices are low, the farmers nevertheless receive their agreed price. On the other hand, if the produce is sold for a higher price, the farmers receive the surplus as bonus during the year end. Thus, farmers have much more say, both in what they want to grow and the price they receive.

BiOGaIN operates on a fairly small scale at the moment, with eleven farmers supplying a total of 3-4 tons of organic produce each month to around 40 local buyers, as well as distributing to about 20 households (box scheme) and 8-10 larger buyers in surrounding districts. However, if more farmers joined the scheme, it would be possible to market up to 30-40 tons of produce monthly in 20 main locations.

Sharing the benefits
Having benefited immensely by practicing organic agriculture, Shanthi wants to see her entire village going organic. She relentlessly motivates people to go organic. Already there are signs of changes happening learning from Shanti’s experience. Many neighbors have started following few practices. For example, farmers now pile up their weeds for converting them into compost instead of burning them, and readily accept gifts of Panchagavya, traditional liquid manure made from cow products. Shanti is hopeful that her dream will be realized.

Acknowledgement
Authors are thankful to Mr. David Pople, Friends of Hope, U.K. for funding this project. They are also grateful for the farming communities who have made this project a success.

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Mushroom production is an untapped potential source of employment and income in Kerala. Janaki who has established herself as an enterprising entrepreneur in mushroom production is now a role model for several unemployed youth.

G S Unnikrishnan Nair

Janaki is one of the largest individual producers of mushrooms in the state of Kerala in South India. She was recently honored by the National Mushroom Research Center at Solan as one of the best mushroom farmers in the country. The success story of Janaki, residing in Trivandrum district of southern Kerala has motivated many youngsters who wanted to be on their own.

The journey of Janaki started in the year 1998, when she was looking for alternative income generation options after quitting her job in a private agency. Having a zeal to take up self employment, she toyed with idea of taking up mushroom production, which was just picking up in the state. She participated in the training programme of Kerala University on mushroom production.

In 1999, Janaki started mushroom cultivation on an experimental basis. She started off in a small room with 10 mushroom beds.

The mushrooms started growing and were ready for harvest by the twentieth day. She could harvest till one month and each bed yielded up to 800 grams. The harvest of the first year was used for the family and was also shared with relatives and friends.

Expanding the enterprise

Gradually, Janaki expanded the number of beds and tried to sell the harvested mushrooms. But, in Trivandrum mushroom was not a very popular dish. Only the upper class in the society enjoyed mushroom dishes. Common people were not used to eating mushrooms and were of the opinion that they were poisonous. Mushroom was more used by high-class hotels. These hotels were using button mushrooms (agaricus species). Oyster mushroom (pleurotus species) which is a very tasty mushroom and which grows well in tropical climate was unknown to them. They were of the presumption that button is the tastiest mushroom and good dishes can be made only with it. Janaki approached the hotel managers and explained the benefits of oyster.

Janaki went to Bangalore, a metro city in south India, and discussed with an executive chef of a five star hotel who was an expert in oyster mushroom dishes. She learnt several good recipes from him that could be made from oyster mushrooms. Back in her hometown,
she made some oyster dishes and supplied free samples of these dishes to two hotels. Convinced with the taste and cooking quality of oyster mushroom, the two hotels placed orders. Janaki supplied oyster mushrooms at rupees 100 a kilogram, while the button mushrooms were selling for rupees 200 a kilogram. Gradually 20 other hotels and clubs placed orders. With increased demand and by raising a bank loan, Janaki expanded mushroom production to 3000 beds. She rented a new building and employed 6 youth. She could supply 30 kilograms a day.

Janaki started to popularize mushroom among common people. With the help of residential associations, she conducted exhibitions in various residential colonies in the city. In these exhibitions she supplied mushroom dishes like mushroom soup, mushroom pickles, mushroom cutlets and raw packed mushroom at nominal cost. She also participated in state level flower shows and agricultural exhibitions. Her product name “Swadishta Mushroom” (Swadishta meaning tasty) became popular.

Janaki also expanded her enterprise to include mushroom seeds (spawn) production. She converted a room in her house into laboratory with the required equipment. 600 packets of mushroom spawn is being produced every month.

Finding low-cost local solutions

During summer month production of mushrooms reduced owing to the increased temperatures. Meeting client’s requirement became difficult. To overcome this problem, Janaki started growing plants on the roof to reduce the temperature effect on mushrooms. She erected a green house on the roof top and started growing about 1000 anthurium plants in pots. These plants were irrigated daily. This in turn reduced the radiation of heat from the roof. Besides reducing heat, anthurium flowers also fetched an additional income.

As the mushrooms were grown on paddy straw, there was a lot of waste generated. The mushroom bed waste was being made into compost by open aerobic method. As compost making by this method generated foul smell, Janaki started preparing vermicompost from the bed waste. By vermicomposting, the problem of smell and time for composting was reduced drastically. She also started treating the bed waste with Effective Microorganisms (EM), which proved to be very effective in hastening composting. The compost made by this process was of excellent quality and gained good demand. As vermicompost had good demand with urban farmers she could sell a packet of 2 kgs for rupees 10. She also sold earthworms for those in need of them for a price.

Spreading far and wide

Janaki became a known person among farmers. Two newspaper reports on her activities appeared in local dailies which made a tremendous impact. About 2000 persons, mostly un-employed youth, contacted her seeking self-employment potential in mushroom farming. Owing to the demand, Janaki started conducting training classes. Around 1000 of the trained persons took up mushroom production. Janaki also helped some of them in marketing their produce. She also formed a state level “Mushroomers Club”. Presently, around 2000 people are members of the club.

Today, Janaki is not only a self reliant successful woman, but is also helping many youth in making their living. She is a source of inspiration for many around her.

Janaki says, “I feel great satisfaction and happiness to be able to stand on my own feet and earn something for my family. Moreover, I could be of help to many unemployed youth in finding a livelihood. I could teach my two children the principles of entrepreneurship. Overall it is the wholehearted support of my husband and gods’ grace”.

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Themes for LEISA India

Volume 12 no. 2, June 2010
Finance and transition to sustainable farming

Farmers need timely access to finances to meet their farm needs. For small farmers, it continues to be difficult to access credit facilities through the formal banking system. They depend on informal forms of credit, for instance provided by local money lenders. Interest rates are generally high. We also know that, often, they are the only sources accessible in rural communities – even influencing the choices and decisions of farmers. Often, these farmers are caught in fragile eco-systems where the risk is high too.

Over the past decade, many innovative micro finance facilities have been emerging. Many groups of small farmers and landless people, notably women are reportedly benefiting, though not to the extent and scale desirable. But, it is always challenging to get the amount of credit they need at an affordable rate, also, at the time they need. However, we are coming across interesting examples of proactive efforts being made by financial institutions and Non-banking financial institutions to innovate with new models to address financial inclusion.

Farmers who are interested in making a transition from highly chemicalised agriculture to eco-friendly alternative agriculture need support. Also, they need the ‘transition’ financing too. The present mainstream systems are not geared up enough to meet these needs.

In this issue we would look forward to readers sharing their experience of alternative working models – involving both alternative institutional as well as mainstream financial institutions. These stories could be successes as well as challenges. We are also interested in experiences highlighting the transition efforts as well as realistic time frames.

Please send us your articles to the Editor at leisaindia@yahoo.co.in

Deadline for submission of articles - May 15, 2010
Statistics worldwide show that the world’s urban areas keep growing – in particular in the less industrialised countries. It was estimated that in 2005, half of the world’s population lived in cities, and that the total numbers will double by 2030. The production of vegetables in and around cities is therefore growing, in response to the urgent need to feed urban dwellers. The advantages of urban agriculture are being increasingly recognised: it contributes to community development and local organisation, as well as to the production of a great diversity of food, in large quantities.

Urban agriculture in Cuba
Cuba is one of the countries in which urban agriculture has developed the most. A severe food crisis hit the country after the collapse of the Soviet Union in 1991. The production of food in the cities was seen as one of the solutions to the problem (reducing transportation costs and as well as the need for machinery). Special emphasis was placed on production without external inputs (as these were not available), resulting in highly efficient organic systems. The problem of having many “new” producers was that they lacked experience in producing vegetables on small plots. Therefore an extensive network was built up for the provision of training courses and extension services, and the distribution of seeds and tools. As a result, urban agriculture has shown an impressive growth during the last 15 years. It is now estimated that at least 350 000 “urban farmers” grow crops on more than 70 000 hectares. Whereas in 1994 Cuban cities harvested 4 000 tonnes of vegetables, the Ministry of Agriculture recently reported that during the first three months of 2009, the total harvest of vegetables exceeded 400 000 tonnes; largely reducing the need to import food.

Cuba’s success story, further developed

The potential of urban agriculture for feeding a growing population is becoming increasingly visible. In Cuba, “urban farms” contribute to a large extent to the island’s food self-sufficiency. As in all food production systems, women play a very important role in urban agriculture. Recognising this role and the overall contribution of women, makes for even better results.

Francisco Dueñas, Dagmara Plana, Isis Salcines, Bárbara Benítez, Laura R Medina and María E Domíní
Located only a few kilometres east of Havana’s centre, Vivero Alamar is a co-operative of 170 producers working on 11 hectares, right in the middle of a highly-populated neighbourhood. It started in 1997, when a plot of 3.7 hectares of unused land was given by the government to a small group of producers. Today it is one of Cuba’s most famous “organopónicos”, as these agricultural enterprises are known. They all produce organic vegetables (even if most are not certified organic), which are sold either directly to consumers or through the local markets. Alamar shows high (and increasing) production levels throughout the year. Local schools and hospitals also benefit, as they receive at least 10 percent of the vegetables produced. All co-operative members receive a monthly salary which is much higher than the average wage of a civil servant.

Managers of the organopónicos have considered a series of incentives in order to attract both male and female members, such as a seven-hour workday and possibilities for formal education. But these efforts have never been separated from the traditional and widespread notion that men are responsible for working outside the home and earning money, while women are to take care of the family, with no financial remuneration. Even though Cuba’s political system ensures equality between all members of society, in most areas, women combine the responsibility of working and caring for the family, while men have only a marginal role in the latter.

We were not really equal…

Considering that objectives as self-esteem and respect to all producers have been top priority in Alamar since 1997, and the fact that almost one third of all members are women, we decided to look in detail at the roles of men and women. We started with a thorough appraisal, considering specific tools and also running open interviews. We organised a series of workshops with all co-operative members, highlighting what we hoped to achieve and inviting everybody to participate. Men and women were placed in separate teams and asked to make lists of all their daily activities (see Box 1) and then used the results as part of the discussions. In another workshop, also with separate teams, we asked the participants to state their needs and objectives, and to show if, according to them, these apply to both men and women (see Box 2).

The results were clear. They showed that in spite of the rhetoric, our successful organopónico was reproducing the traditional stereotypes of Cuban and Latin American societies, where women have more responsibilities, but less decision-making power. As expected in a machista society, our results showed that men are not much involved in household activities. Women take care of their children, but at the same time, they participate fully in all production activities.

The survey showed that men and women had different expectations. Men hardly recognised that women are also interested in higher yields for the co-operative, while women considered men and women to have similar needs and objectives in that respect. Women expressed a specific need for further training and interest in a more active participation in decision-making at all levels.

Starting in January 2009, all results were presented to the members of the co-operative. We had interesting discussions about the results – especially when looking at the inequities. But, more important, the management team took the results seriously. It was not possible to force men to simply play a more active role at home, so Vivero Alamar organised a series of internal seminars on gender issues, aiming at “institutionalising equity” within our co-operative and helping all members to reach their personal objectives. We offered additional training to women, especially on production issues.

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**Box 1. Daily activities**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00 – 7.00</td>
<td>Prepare breakfast</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed animals</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Get children ready</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>7.00 – 12.00</td>
<td>Go to work</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Daily activities in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vivero Alamar</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>13.00 – 18.00</td>
<td>Daily activities in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vivero Alamar</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Get children from school/</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>check homework</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>18.00 – 23.00</td>
<td>Prepare dinner</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eat dinner</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Watch TV/Rest</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

**Box 2. Needs and expectations**

<table>
<thead>
<tr>
<th>According to men…</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase production levels and yields</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Ensure an income</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Improve environmental aspects</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Improve worker’s own training options</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Increase work efficiency</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Improve irrigation systems and seed quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve working conditions</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Increase the number of recreational activities</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>According to women…</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase production levels and yields</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Ensure an income</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Protect the environment</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Have access to training options</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Health security</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Help more at home</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Have sufficient access to all resources</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Participate in all decision-making processes</td>
<td></td>
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<td>Increase their own communication with children</td>
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such as seed conservation or pest control. Special attention has been given since then to the participation of women on exchange visits, as trainees and also as trainers. Women have played a more important role as Alamar’s representatives in various “innovation festivals” or “agrobiodiversity fairs”, which are organised regularly throughout the country. This has been very useful for all those involved: some of our female workers were able to establish links with representatives of other organisations, exchanging seeds and ideas. But it has been very useful for Vivero Alamar as well, as women’s participation in internal discussions has increased dramatically. As Norma Romero, one of the most active participants in this project said, “this has helped us to combine training and an exchange of ideas; sustainability and empowerment”.

Our analysis also showed that many women in the co-operative are single mothers, with specific needs and concerns which we somehow had to meet. At the same time, we saw that there are certain roles and responsibilities for which women are better suited than men – and we could make good use of that. This was shown in a small survey we did among consumers (those who buy our products at the co-operative’s gate): they preferred women as salespersons as they are more friendly, much more alert and know more about the quality of the products. Paying attention to these issues gave us an opportunity to strengthen our links with the local population. We are now in a better position to fulfil our role as producers of food that is healthy and available to all.

Changes and continuity

Although women represent less than a third of our workforce (43 out of 170 co-operative members), we are proud that half of our managers are women (leading, for example, the commercialisation unit, the personnel office and the financial department). Their election to these positions was the result of a democratic process in which all members were involved. But it was certainly also the result of our own reflective process and of our recognition of the contribution made by women.

Acknowledging the positive results that have been achieved by small-scale production units, and recognising the need to further increase food production on the island (especially after the devastating impact of hurricanes Gustav and Ike in 2008), the Cuban government is now assigning land to individuals or groups, hoping that these units will be managed as efficiently as the urban organopónicos. Starting with peri-urban areas (at approximately 10 km distance from the cities), this will lead to many opportunities for increasing production levels. But it also presents new challenges, as, once again, few producers will have the expertise and knowledge for producing on small-scale plots. Recognising the current and potential role of women will only help us all to reach our objectives.

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Spreading local culture through eco-toursim center

A cooperative of landless women in Gujarat are making a successful living through collective farming. By converting their village into an eco tourism centre, they are conserving and promoting local cultures and cuisine.

Jignasa Pandya and Neeruben Senma

In the village of Ganeshpura, situated in Kadi block of Mehsana district, 41 women have an incredible story to share. These women belong to families who work for landowners and rich farmers. They neither own land nor have any other source of income. Working ten days a month, they used to earn Rs. 2000 a year. They are now earning the same amount in just a month. This is the story of a woman’s group, Shri Vanlaxmi Mahila Utpadan Sahakari Mandal.

SEWA, an NGO in Gujarat started working with the agriculture wage earning women in the Mehsana district in 1986. Various meetings were held with these women, to understand their way of living. The chief problems put forward by the women were sustaining the family, educating children and having a steady source of income. As these women were landless, they couldn’t even purchase and rear cattle. During the seasons of harvesting agricultural crop, they were employed for 10-15 days a month as wage labour by the rich farmers. For the rest of the month, they were forced to stay at home. This greatly affected their ability to take proper care of the children and family. They were unable to afford good education for their children.

During one of the meetings, SEWA planted the idea of leasing unused land and taking up cultivation on it by the women. The women were interested in the idea and also identified such land. SEWA approached the village panchayat and was successful in receiving 10 acres of land from the panchayat on a lease for 30 years.

Tending the land

The land received was completely barren and needed landscaping. The women took up the challenge, encountering several, including encounters with poisonous snakes. Undeterred obstacles, the members continued to work ceaselessly until the land was leveled. Trees were grown on the 10 acres of leveled land.

Soon they realized that the land had no source of water. As a result, the women had to walk nearly 1.5 kilometers everyday to the village to get water for their plants. To resolve this problem, they decided to build a pond to collect and store “rain water”. They were trained at the Indian Petroleum Company Limited (IPCL) to build plastic ponds and successfully built a 10 foot deep plastic pond on their land.

Once the land had abundant tree cover, the women members decided to grow seasonal crops. The land was divided into equal parts amongst themselves and a specific number was allotted for each plot. However, the members realized that they lacked the tools to carry out farming in their land. With assistance from Hindustan Petroleum Company Limited (HPCL), the required tools worth Rs. 165000 were procured by the co-operative. In the year 1988-89, SEWA helped the members by digging up a bore well on their land, which ensured sufficient water for the farmers to harvest two crops in an year. The basic agriculture expenses for the crop were borne by the co-operative group. Out of the total earnings, two parts are received by the group, and one part is kept by the member.

The Jagudan Centre of the Gujarat Agricultural University helped the women in providing knowledge about tree-plantation, dividing agricultural land and inter-cropping. The members have learnt new and scientific techniques through Indian Farmers Fertilizers Co-operative (IFFCO), Farmers Knowledge Center (FKC) and from the consultancy provided by SEWA.

The members realized the importance of acquiring additional skills for increasing their income. They underwent training on processing of vegetables and fruits from the SEWA Gram Haat. Here the women learnt to make mango and vegetable pickles, lemon pulp juices, lemon-ginger juice, lemon squash, lime squash, etc., which were sold at fairs. This led to an increase in their income. Since eight years they have been carrying out fully organic inter-cropping, using vermicompost and manure. The women members have realized that their organic produce had better quality and fetched better returns in the market. Lemons which were grown organically

Women of Shri Vanalaxmi Mahila Utpadan Sahakari Mandal welcoming guests at the eco-tourism centre.
had better quality and could be stored longer. This reflected in the quality of processed products as well, as they fetched them a good price and increased their income. This was the first step to self-sustainability and SEWA Sahkaari Vriksh Ucher Varalaxmi Mandal was created. The members learnt to manage the co-operative themselves and have in the true sense become the owners and managers of the land.

Developing into an eco-tourist destination

The village with the support of SEWA was developed into an eco-tourist center. The objective of setting the eco-tourist center was multifold – to provide a green and serene atmosphere for urbanites, to help the cooperative become self-sufficient; to provide full time employment to the women members and most importantly to preserve traditional culture and cuisine.

Initially this centre used to provide just the basic amenities such as food and boarding to the tourists. Later, the members underwent training in hospitality industry to hone their skills. The members were trained at Agashiya hotel, Ahmedabad. They were trained in basic etiquettes, housekeeping and also helped them improve their traditional culinary skills. The members of the co-operative have been specifically trained on how to welcome the tourists in a traditional way. Also, special care is taken to maintain cleanliness in preparation and serving of food.

In the eco-tourism centre, the importance of green cover is conveyed to the visitors. The botanical names, medicinal properties and uses of the plants and trees in the vicinity have been displayed on boards in English and Hindi. Trees have been grown on plots of lands in line with zodiac signs and Indian astrological formations such as ‘kundali’. This has been done to help the interested visitors who would like to meditate in the shade of the trees which match with their zodiac signs. The women co-operative add colour to this centre by creating beautiful rangoli patterns in the plots.

With the support of Ms. Kahiniben, cottages were created from bamboo and grass for the visitors to have their meals and take rest. A separate playground has been developed for children.

A kiosk of Rural Distribution Network (RUDI) has been set up at the eco-tourist center, where freshly grown vegetables are sold. At this kiosk, RUDI products along with the vegetables grown by the members are sold.

The uniqueness of the concept has attracted various groups like the Rotary and Lions club, senior citizen groups, school children and several others who want to experience traditional Gujarati food and serene environment. Till date around 6042 tourists have visited the centre. The co-operative has a wider support now, with people volunteering to help, gradually helping them progress towards self sustainability.

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“Organic Farming: The right choice for nature… you and me”

South Asia Farmers’ Conference 2010

The Sustainable Agriculture and Farmers Rights (SAFaR) Program aims at promoting sustainable agriculture to achieve the twin goals of empowering farmers in improving their quality of life and attaining environmental sustainability. The programme supported by Caritas Asia started in January 2008. One of the unique features of the programme is building capacities of farmers through exchange programmes. The Farmers’ Conference (FC) is a platform for farmers to share their experiences, learn from each other and be united to protect farmers’ rights. The whole programme is based on the concept of ‘travel and learn’.

The South Asia Farmers conference for the year 2010 was held in Bangalore during February 9-13, 2010. Two farmers and one staff from Caritas regions like Sri Lanka, Nepal, Bangladesh and India participated. The conference was launched on 9 February 2010 by Father Verghese Mattamana, Executive Director, Caritas India. For the next three days participants traveled to places like Mysore and Waynad in Kerala. They visited the farm of Mr. Chandrasekar in Mysore to know more about organic farming practices. Later the participants visited Waynad, to learn about the processing and value addition of organic products. The workshop concluded in Bangalore with participants sharing their learnings and preparing plans to implement their learnings.
The concept of food sovereignty gives visibility and recognition to the role of women in producing food and other agricultural goods. Getting food sovereignty onto the political agenda is very much related to the issue of women’s rights, particularly those of rural women. By organising political campaigns, the Brazilian Women Farmers’ Movement (Movimento de Mulheres Camponesas – MMC) is attempting to do just that. And in doing so, they demonstrate the important role of women farmers.

Laetitia Jalil

The discussion that is currently going on around the concept of food sovereignty in Brazil has many political and social shadings. It reflects a complexity of social, political, economic and cultural realities. Food sovereignty guides the policy priorities of various movements – both within civil society and the government – and also links urban and rural areas. It even transcends national borders, to international organisations such as La Vía Campesina.

As a movement that has grown out of political activism in the 1970s, the Women Farmers’ Movement recognises the relevance of the concept of food sovereignty for rural women. In Brazil, women represent 47.8 percent of the population residing in rural areas, of which only 16 percent hold titles to land. According to the Brazilian Institute of Geography and Statistics, 40 percent of the rural population has no basic identity papers such as a birth certificate, and of this total, 60 percent are women. Of a total of almost 15 million women, most do not have access to health services and schooling, nor does the government recognise their needs as family farmers, rural workers or victims of racism in the case of those of African descent. Without papers, people cannot have their basic human rights protected, and they can neither vote, hold titles to land, nor get access to credit.

Campaigning for rights

An important focus of the activities of the Women Farmers’ Movement is on the participation of women in public functions and the redefinition of their practices at home. The movement is found throughout rural and urban Brazil. Per state, it is organised into regions. Each region comprises a number of municipalities, whose co-ordinators organise grassroots groups, conduct training activities on women’s rights and participation, and develop campaigns and workshops on indigenous seeds and medicinal plants.

In 2007, the Women Farmers’ Movement embarked on a political campaign in preparation of the International Women’s Day on March 8th. A march, bringing together a large number of women, kicked off the campaign to highlight women’s roles in food sovereignty as well as issues such as violence against women and

Valuing food sovereignty

“Food sovereignty is about the right to say ‘this is ours, this is what we produce’, and to not depend on others to produce food for us. The seed we use is ancient, based on conservation practices of the first inhabitants of this land. A company cannot therefore come in and try to cheat us, saying that what we do is not valuable, useful or profitable. We can prove our worth through our daily farming practices. Our production has potential, and it gives us the strength to fight for and value what we do in our work and in our lives.” Quotation from an interview with the municipal MMC co-ordinator in Descanso, Santa Catarina, May 25th 2008.
the struggle for welfare reform. The slogan “Produce healthy food, care for life and nature” stressed the importance of the production of healthy food.

The goals of the campaign were multiple: to advance the struggle for food sovereignty in order to combat hunger, poverty and poor health and to increase support for small-scale food producers through technical assistance, infrastructural improvements and subsidies. At the same time, the campaign intended to build awareness on biodiversity and environmental conservation, partly through agro-ecological practices. The campaign focused on agrarian reform and better public policies for rural areas, concerning things such as welfare, health, education, homes and transportation.

Activities on three fronts

The campaign initiated projects to revive local and forgotten varieties of seed (through seed banks, improvement and exchange), medicinal plants (preserving local knowledge) and agro-ecological production (by organising agro-ecological fairs that focus on food habits and sustainable care of the environment). Meetings took place at which people could learn about and exchange their experiences of using non-commercial seed and agro-ecological practices. Throughout the campaign, municipal co-ordinators also received training courses to improve their agricultural capacities and awareness of women’s issues, in order to create a stronger network.

A year later, on March 8th, 2008, the Women Farmers’ Movement organised simultaneous demonstrations throughout Brazil, to present a series of demands to the government. For example, 600 women came to Florianópolis, a city in southern Brazil, to demand that the municipal government construct 600 water tanks, and set up 30 medicinal gardens and three literacy classes. Two women farmers explain the importance of their message:

“What is the relevance of March 8th? It is to strengthen our campaign. If we had a water tank, our gardens would be quite different, and we would not run out of food. Water shortages happen (we have already had one this year), so we hope that our message will mean an answer to this question.”

Rosalina Silva

“I think these two things, the campaign and the agenda of March 8th are very much linked, because if I want my garden to produce, I need a water tank. If the state were to build and safeguard water availability, it would make a lot of sense. Because if you say to someone, ‘Make a garden’, a garden without irrigation will not succeed. For this, we have to fight because it is the right of women to have access to a garden, to water, to schooling.”

Iraci Colombo

Visible results

By implementing the campaign for healthy food production, the Women Farmers’ Movement has come to understand better how the practices of women farmers reaffirm the struggle for food sovereignty. The movement has become much stronger because of the campaign, particularly by linking rural and urban women. At the same time, the movement experienced that they can use the concept of food sovereignty to influence policies towards a more democratic society. A main highlight of the campaign was when the movement made specific demands to the Ministry of Welfare regarding the inclusion of women in the national discussion on universal welfare reform. As a result, the government was forced to include women in their official discussions on the reforms.

Battling for food sovereignty is not only about questioning the model of commercial production, but also about recovering and valuing local knowledge and family farming culture. Strengthening food sovereignty should at the same time strengthen the fight against oppression of women and degradation of the environment. This should lead to new social relations, characterised by solidarity, respect, recognition of diversity, and solving the critical question of inequalities between men and women. Only then can we change the world to change women’s lives!

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“The Climate Crisis – People’s Potential and Needs for Adaptation and Mitigation”

This document is a synthesis of the deliberations of the conference on “The Climate Crisis – People’s Potential and Needs for Adaptation and Mitigation”. The conference was organised by MISEREOR and Welthungerhilfe in partnership with Sustainet, IGSSS, Laya, Outreach and BARCIK during 6-9 October 2009. The document brings out examples of people’s existing strategies for adaptation and their needs and priorities to deal with the changing climatic conditions in future. These examples cover communities’ adaptive strategies in agriculture, disaster preparedness and Clean Development Mechanism projects. Recommendations based on intensive discussions on various issues during the workshop have been highlighted at the end of each section.

This document is a joint effort by LEISA India team of AME Foundation, Bangalore and ILEIA, The Netherlands. The document is available online at http://india.leisa.info
Even during the days when men used to go to the forests hunting animals and collecting tubers and fruits, women used to grow tubers and food crops in their backyards. So the women were the first to grow crops. Even today, in places where the machines have not dominated agriculture operations, 60% of cultivation is done by women. In India, particularly due to social reasons, men always look after the outside tasks while the women stay at the farm all through taking care of crops and livestock. It is the women who are aware of the food needs of the household and are better planners of the crops that need to be grown on the farm for the year. I still remember that my father was against growing mustard as an intercrop with ragi during monsoon season. But my mother used to mix a handful of mustard seeds with out his knowledge, since mustard was very much necessary in cooking. My father used to get angry with her when he found mustard seedlings among ragi seedling in the field, still she did not give up adding mustard seeds every season. Many clever housewives do not allow their husbands to grow only commercial crops and convince them to grow some crops for the family regularly.

In many villages it is still a regular practice where women grow vegetables at their backyards using waste water generated from washing and bathing. They also grow a few drum stick, papaya and banana trees on the edges of their kitchen garden. It is not only that they grow enough vegetables and fruits for the family, they also share with their neighbours and also sell them at times. Of late the back yard and roof top gardens are becoming very popular in the urban areas. Particularly in the city of Trivandrum in Kerala state atleast 25% of the residents are practicing roof top gardening where they grow 6 – 7 varieties of greens and vegetables, free from poisonous pesticides. As a result, they get fresh vegetables every day saving a good amount of money and time in purchasing vegetables from the market. Apart from saving money and their precious time it is the pleasure and good exercise they get gardening in their own place and knowing what they are eating. The vegetables that are grown in the radius of 30 k.m of the urban areas are being irrigated with sewage water and washed with sewage water. Hence one can imagine the quality of vegetables procured from the markets.

Women can establish contact with families living around urban areas and make an arrangement with them to grow and transport them at least twice a week. This will save the farmer’s time and the money going to the market. Even relationships can be developed between farmers and urban families, the families visiting famer’s fields in weekends with their children. They can work with them and learn to grow vegetables in their backyards and on rooftops. They can cook healthy and delicious dishes from these home grown vegetables at a cheaper cost.

Women play an important role in growing and preserving vegetable seeds of many varieties according to the seasons. It is very important to preserve and protect indigenous vegetable seeds for their nutritional value and taste. Since giant multinational companies are releasing genetically modified seeds like BT Brinjal and BT Okra, whose seeds do not germinate if sown, farmer will need to purchase seeds every time from such companies at the dictated price. Moreover, there is every possibility of these crops being cross pollinated with the crops we are growing and they may become impotent. Hence, it will be much cheaper and safer for farmers to save local seeds and reject harmful G.M seeds. By doing this we will also be preserving the biodiversity of the nation.

Nobody can understand why BT Brinjal is imposed onto the community in haste. Why should farmers sacrifice their interest and preference for their favorite variety of brinjal? When a brinjal can produce 1500 seeds, why should we purchase an expensive unfamiliar variety of Brinjal? While we have 10 to 15 varieties in almost each district of India for different recipes, how can one BT Brinjal meet our needs for different recipes?

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

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Organic agriculture and women's empowerment by Cathy Farnworth and Jessica Hutchings, 2009. IFOAM. Downloadable at www.ifoam.org

Gender relationships are fundamental worldwide to the organisation of farm work and to farm decision-making. Surprisingly, there is not enough attention given to gender issues within the organic and sustainable farming movements. However, both could benefit, according to the authors of this book: women can gain empowerment by participating in the movement and organic organisations gain from the knowledge and insights of these women. In this book, people from the South suggest a range of measures to increase women’s voice, for example by encouraging women to take up community leadership. Women need to participate in all decision-making aspects of sustainable and organic agriculture; as farmers, as researchers and as leaders. Positive support of men, training in organic methods, women-friendly spaces and women’s presence in organic research institutions will help. The authors stress that food security as a priority for organics may also enable empowerment, since women hold a central role in improving nutrition in the household.


Can we feed the world in the year 2050? Despite global food surpluses, many countries currently face malnutrition, hunger and starvation. At the same time and in the same countries, mass obesity exists as well. These are two sides emerging from industrial agriculture and global trade in agricultural food commodities. This book takes a hard look at traditional, modern (genetic engineering) and emerging (agroecological) biotechnologies and sorts them on the basis of delivering food without undermining the capacity to produce more food. The case is made for a different approach to biotechnology rather than the “one size fits all” biotechnology on offer.

The Hindu Survey of The Environment 2009 Published by The Hindu, 2009, Available at The Hindu, No. 859 & 860 Anna Salai Chennai – 600002 Tamil Nadu India.

This edition focuses on the challenge of pollution control and waste management, be it from inland water bodies, electrical and electronic equipment or biomedical. Experts have contributed articles on climatic changes, solar power, noise pollution and sustainable growth in the context of climate change. Other articles which are likely to add value to this compilation’s content are the preservation of biodiversity, development versus environmental concerns and the coral and lagoon conservation in Lakshadweep. The Editorial fare also covers the natural environment and coastal ecology.

Climate Change: Politics and Facts published by Centre for Science and Environment, 2009, Available at CSE No 41, Tughlakabad Institutional Area, New Delhi-110062, INDIA. The book can be ordered online http://www.cseindia.org

This is a new book from Centre for Science and Environment that attempts to demystify the subject through a set of comprehensive and concise fact sheets. Packed with illustrations, factoids, graphs, charts and tables, the book is as much a one-stop storehouse of information on climate change, as it is an aid towards understanding and appreciating the danger that stares us in the face.


In Soil Not Oil, bestselling author Vandana Shiva connects the food crisis, peak oil, and climate change to show that a world beyond a dependence on fossil fuel and globalization is both possible and necessary. Bold and visionary, Shiva reveals how three crises are inherently linked and that any attempt to solve one without addressing the others will get us nowhere.

Condemning industrial agriculture and industrial biofuels as recipes for ecological and economic disaster, Shiva’s champion is the small, independent farm. What we need most in a time of changing climates and millions hungry, she argues, are sustainable, biologically diverse farms that are more resistant to disease, drought, and flood. Calling for a return to local economies and small-scale food production Shiva outlines our remaining options: a market-centred short-term escape for the privileged, which will deepen the crisis for the poor and marginalized, or a people-centred fossil-fuel-free future, which will offer a decent living for all.


UNFPA and WEDO have developed a comprehensive resource kit on gender, population and climate change. Learn how gender equality can reduce vulnerability to climate change impacts and how women are uniquely positioned to help curb the harmful consequences of a changing climate.

Climate change is already impacting populations and ecosystems around the globe. Exacerbating poverty and leading to infrastructural breakdown, it threatens to set back development efforts by decades, profoundly affecting all of us.

But the impact won’t be felt equally. Those with the fewest resources will be most susceptible to its negative effects – particularly women, the majority of the world’s poor. At the same time, women’s vulnerability can obscure the fact that they are an untapped resource in efforts to cope with the effects of climate change and reduce the emissions that cause it. As innovators, organizers, leaders, educators and caregivers, women are uniquely positioned to help curb the harmful consequences of a changing climate. Incorporating a gender perspective into climate change policies, projects and funds is crucial in ensuring that women contribute to and benefit from equitable climate solutions.
Women play a crucial role in household food production in many cities around the world. They grow vegetables in gardens and vacant urban spaces, raise animals, and trade in fresh and cooked foods. They boost household nutrition as well as generating income and building social inclusion among the urban poor. Women’s vital contribution, however, has largely been neglected by city officials, economic planners and development practitioners, who have tended to concentrate on the industrialisation of food production. This book analyses the roles of women and men in urban food production and, through case studies from three developing regions, and suggests how to maximise women’s contributions. In the second part, detailed guidelines and tools show how to bring women into the mainstream of urban agricultural research and development.


Securing water is critical to achieving food sovereignty and improving livelihoods. Women manage water resources for domestic and productive uses, and they are getting more attention in the planning of water projects: the projects are becoming more multi-purpose, multi-use and multi-user oriented. The involvement of communities, men and women, is the key to successful gender mainstreaming. But much can be improved. As this book shows, projects must be based on the understanding that land and water are closely linked: secure access to land is essential for secure access to water. Every water or land programme should be preceded by an analysis and thorough understanding of rights and how labour is divided in production and household activities. Multi-purpose water systems address women’s concerns better than single-use projects. But further gender-sensitive planning and monitoring is necessary throughout the whole project cycle, as is participation of women in decision-making.


Empirical evidence on women’s role in agriculture worldwide is presented, to inform policy formulation and programme design. This sourcebook shows how to avoid pitfalls of gender-neutral planning and how to support women in their potential to raise agricultural productivity and reduce poverty. It contains information from more than 100 contributors based on 15 years of evidence of good practices in the field in terms of agricultural markets, rural finance, livestock, forestry, among others. Agricultural growth and increased income among women are two priority areas of economic development in developing countries. For small-scale farmers especially, these two priorities may be the only way out of poverty.


This book is a compilation of essays contributed by experts from divergent fields. The essays reflect the economic, social, religious, and psychological aspects of women in every sphere of life, and suggest how to measure the inherent inequalities. This volume shows that there exist pronounced inequalities between men and women with respect to wages, ownership of properties, opportunities in education, professional careers, job opportunities, and several other indicators. A study of wage disparity between men and women finds that the labour market is highly sex-segregated; while cultural reasons restrict women’s access to work, their freedom to participate in the formal economy is even more curtailed. At a micro-level analysis of intra-household discrimination, it is observed that differences in resource allocation between male and female members often lead to differences in health status. Case studies from India and other South Asian countries emphasize dominant nutritional and health disorders among women and children. The volume concludes with the methodological aspects of gender discrimination and gender inequality measures that are significant especially in the context of rural areas.


The World Survey on the Role of Women in Development is the flagship publication of the United Nations Division for the Advancement of Women. It is presented to the Second Committee of the General Assembly at five-yearly intervals.

Siyanda
www.siyanda.org
Named after a Zulu word meaning “we are growing”, this is an online database of gender and development materials from around the world. These materials include reports and documents (many of them submitted or suggested by visitors), and also a large database of experts and consultants. This site is meant to serve as an interactive space, where visitors can share ideas, experiences and resources. Siyanda is hosted by BRIDGE, the gender and development research and information service of the Institute of Development Studies (IDS).

Institute for Food and Development Policy
www.foodfirst.org
One of the major objectives of the Institute for Food and Development Policy (or “Food First”) is to shape how people think, by analysing the root causes of global hunger, poverty, and ecological degradation and developing solutions in partnership with movements working for social change. Its work “both informs and amplifies the voices of social movements fighting for food sovereignty”. This is all organised according to three programmes (building local agri-food systems; farmers forging food sovereignty; and democratising development: land, resources and markets), which are carried out in different countries. The Food First website includes a wealth of information about food issues, with blog postings, press releases, policy briefs, fact sheets, and also what they call “backgrounder”. It also has a section inviting visitors to “get involved”.

International NGO/CSO Planning Committee
www.foodsovereignty.org
The International NGO/CSO Planning Committee (or IPC) is a global network of organisations concerned with food sovereignty issues and programmes. It includes social organisations representing small farmers, fisherfolk, indigenous peoples, agricultural workers’ trade unions, as well as important lobbying and advocacy networks. The IPC aims to serve as a facilitation mechanism for diffusion of information on, and capacity building for, food sovereignty and food security issues. Their site includes many documents which are grouped according to region or constituency (sadly, not updated), together with information on its working groups and its “focal points”. At the moment it also includes an invitation to participate in the People’s Food Sovereignty Forum, which is going to take place in Rome in November.

Slow Food International
www.slowfood.com
Founded in 1989, this organisation grew from the desire to “counteract fast food and fast life, the disappearance of local food traditions” and that fact that people are now less interested in where their food comes from, how it tastes, and to raise awareness on how food choices affect the rest of the world. It now counts 100,000 members in 132 countries. Slow Food has also created a network of “food communities” including consumers, educational institutions, cooks, researchers, etc. in order to support small producers. Called Terra Madre, this project sets out to give voice and visibility to rural food producers around the world, and to show the value of their work. Terra Madre also has its own website (see www.terramadre.info). A jointly produced newsletter in eight languages is digitally accessible from either site.

ActionAid HungerFREE
www.hungerfereeplanet.org
This is the site of the five-year campaign launched by ActionAid, by which they are trying to get all governments to honour their promise to halve global hunger by 2015. This campaign wants governments to introduce and implement specific laws – in particular laws that guarantee that women have the right to own land. Its website includes detailed “updates” on issues such as biofuels, rising food prices or climate change. It also has up-to-date press releases (with detailed recommendations) and, together with a series of stories from the field, it has a beautiful photo exhibition where women “speak out”.

WOCAN, Women Organizing for Change in Agriculture and Natural Resource Management
www.wocan.org
Set up in 2004, WOCAN is a network of people which aims to contribute to processes of organisational change for gender equality and environmentally sustainable development. Working with partners in countries such as Nepal, Zambia and Nigeria, WOCAN supports women through confidence-building, leadership and communication training. Among its major activities, it organises detailed courses, such as “gender-sensitive participatory research for plant breeding”.

The Gender and Water Alliance
www.genderandwater.org
Established during the second World Water Forum (WWF) in March 2000, this is a global network set up to promote equitable access to and management of safe and adequate water. Its programme and activities include recording and sharing of knowledge and information on gender mainstreaming policies, and reinforcing the profile of gender equity issues at international water-related conferences. Their website includes many documents and resources, all of them grouped according to the different “water sectors”: agriculture and food, drinking water, environment, sanitation, and integrated water resource management.

AWID, Association for Women’s Rights in Development
www.awid.org
AWID is an international membership organisation committed to achieving gender equality, sustainable development and women’s human rights. Its main objectives include helping build alliances and influencing international institutions and actors. Its site provides access to a large database, with documents on poverty, peace-building, human rights, HIV/AIDS, and much more. Although not much attention is given to agricultural production, it is possible to find information on environmental issues and the right to land (in case studies, guides, etc.).

Work of Women, WOW!
www.workofwomen.org
Set up by World Neighbors, this programme aims to build on what women do (care for families, impart wisdom, or produce most of the world’s food) and change the situation in which they are found (work two-thirds of the world’s working hours but earn just one-tenth of the world’s income; suffer disproportionately from violence; are marginalised from leadership and decision making). This programme’s activities include building awareness of problems, advocating for policy and action, and supporting specific work financially. Its site has information about upcoming events, books and films; readers are invited to subscribe to their monthly electronic publication.
The purchase of large areas of land overseas by foreign countries and companies, the so-called “land grabs”, have led to a call for a code of conduct. Will such a code help protect small-scale farmers’ rights to land and food? Ruth Meinzen-Dick from IFPRI, the International Food Policy Research Institute in Washington, thinks it will. But for it to be effective, it will have to meet certain requirements.

“Land grabbing” has received a lot of attention in the media over the past few months. One of the first to report on the topic was Ruth Meinzen-Dick, senior-researcher at IFPRI. Together with Joachim von Braun, she published a paper in April that listed overseas land investments, and that identified opportunities and threats. One of the threats they mentioned is the unequal bargaining power of small-scale farmers, who are at risk of being displaced from their land.

How can a code of conduct stave off such a risk? As Ruth Meinzen-Dick points out, small-scale farmers cannot effectively negotiate terms when dealing with such powerful institutions like governments and large corporations. “They need to know their rights. Therefore, existing local landholders must be informed and involved in negotiations over land deals. Secretive deals only lead to insecurity. A code of conduct can help ensure this. But for it to work, it needs to be translated into regulations binding within a country. Those who do not adhere, can then get sanctioned in the international arena.”

What more does it take?

Countries buying land have to see that such a code is in their interest, says Meinzen-Dick. “If it is only the countries that have land to sell or lease that are in favour of a code, it will not work. Investors can then always look for a country without such regulations and strike a special deal.”

How likely is it, though, that investing countries will support such a code? Very likely, says Ruth Meinzen-Dick. “I participated in a forum on land grabbing where there were two people from the investors’ side as well. They said it is in their interest to engage in fair trade. Because if local people feel their land is taken from them, there will be problems and investments are not going to yield returns. If investors have an eye for the needs of local people, it will reduce the risk of investment. Companies like Unilever have looked into buying produce from smallholders. We should get them together so they can share experiences and get comfortable with smallholder farming.”

Developments

At last July’s G8 meeting of rich countries, participants pledged to take further steps in arriving at a code of conduct. Was Meinzen-Dick disappointed to see that the pledge did not extend beyond a proposal for principles and best practices on land purchasing in developing countries? “It would have been nice to see more. But I was pleased to see the issue actually got raised. I just hope that that is not the end of it.”

A code of conduct is not likely to fall off the agenda. The African Union might be the first to come up with something concrete, as it is working on a Framework and Guidelines for Land Policies in Africa, together with the UN Economic Commission for Africa and the African Development Bank. This is assuring because, as Meinzen-Dick says: “Issues are most pressing in Africa. Communal land tenure is particularly prevalent there.” Perhaps the African Union can jumpstart the process. (PR)
Bihanaa Maa

The ‘seed mothers’

‘Seed mothers’ of Orissa have played a crucial role in the revival of millet based farming systems. Being store houses of knowledge on local seeds and biodiversity, they have been instrumental in identifying, conserving and spreading local and traditional seed varieties.

Biswa Mohanty

The livelihoods of adivasi communities - Koya in Malkangiri and Kondh in Kandhamal districts in Orissa State, are primarily dependant on agriculture. Traditionally, they have been cultivating many species of millets which provided food sufficient for the entire year. The local communities with concern for agricultural sustainability have been growing diverse crops to maintain and conserve the local diversity. Adivasis in this region are also dependant on the forest resources for food and non-timber forest products.

Over the years, rapid loss of forest cover has widely affected the adivasi livelihoods. Also, the high cost external input agriculture started to have influence on the adivasi farming systems. The diverse cropping systems were largely replaced by monocropping with paddy and some high value crops. In such a changing situation, it's been a challenge for the women in the households to ensure continuous supply of food to their families as rice growing alone cannot meet all their nutrition and household needs.

During the year 2006, a local NGO - Organisation for Rural Reconstruction & Integrated Social Service Activities (ORRISSA) started working with the communities to help them revive their traditional agriculture systems based on their knowledge. The focus was on helping them adopt a system of agriculture which was based on local seeds, low cost and sustainable.

Bihanaa Maa

Adivasi women play a key role in nurturing the local seeds and have enormous knowledge on them. There are quite a few women who still grow various millets in their backyards and on small patches in mixed crop fields. These women are popularly known as Bihanaa Maa or Seed Mothers.

Recognizing the role and importance of seed mothers in reviving traditional seeds, the four local farmer organizations, also called as Lok Sangathans decided to bring dignity to their role. They identified 28 adivasi women in the year 2006 to spearhead the seed knowledge in the area. The seed mothers were expected to help the villagers identify local seeds and share information about the benefit of mixed crops and facilitate free exchange of seeds across households.

These Bihanaa Maa in the villages play the link role between farmers to provide vital information on different seed, their character and quality of seed, process of cultivation and storage as they help sourcing of seed from one to the other.

Seed Multiplication

The seed mothers and the farmer organisations worked together in strengthening the biodiversity in the area. The seed mothers constantly sourced local seeds with improved traits and exchanged them with the farmers. But the traditional seeds did not have all the desired traits and had to be improved. Moreover, the quantity accessed by the seed mothers was so little that it could not be shared with all those farmers who were interested to grow. They had to be multiplied on farmers’ fields. The farmer organizations helped in identifying farmers who could take up the seed multiplication trials. Subsequently, aromatic paddy, millet and pulses varieties were grown by the seed mothers and few lead farmers in their fields first and then exchanged with other fellow farmers. These seeds are identified based on their traits needed by the farmers like short duration, and traits that protected it from the wild animals, pests and diseases etc. Over the last four years thirty two varieties of paddy, seven varieties of millets and twenty one other varieties of rare local seeds are multiplied and shared among 800 odd farmers.

Mapping bio-diversity

To convince the communities across villages and help them recognize the vast diversity of food and forest products available, the seed mothers participated in the biodiversity mapping of the villages. These women had demonstrated that their knowledge on forest is endless as the women at Tangpalli and Adamunda villages displayed twenty five varieties of edible wild green leaves sourced from the forest. In another exercise, on bamboo, at Jharapalli village, the community identified fifty three types of bamboo utilities in the adivasi households. This had inspired the farmer organizations to collaborate with six other people’s organizations to initiate a ‘save bamboo’ campaign to motivate families stop cutting of bamboo sprouts every second year. All the knowledge generated during this process by the seed mothers as well as other
Mothers, demonstrate the richness of the biodiversity by displaying available in the locality. Hundreds of farm women led by the Seed mothers display the rich diversity of the seeds and abundance of natural resources exchange of seeds as well as experiences. The seed mothers display organized immediately after the Kharif harvest, are enabling and common farmers to cherish their seed diversity. These fairs Community Seed Fairs were organized from 2007 onwards by the Community Seed Fair, their members have reclaimed more than 100 acres of lands. In about three years time, this process has brought in nine types of millet seeds which has reached more than 500 farmers from a mere 47 households. The farmers had also brought and exchanged traditional aromatic paddy varieties like Kalazeera and Machhakanta seeds. As per Mr. Bijay, convenor of Community Seed Fair, their members have reclaimed more than 100 acres of uplands and raising mixed crops. Revival of millet based farming systems had enabled 739 small adivasi families (in 2008 at Malkangiri block) to harvest at least two crops out of the 6 to 14 crops grown, when most of the regular farms failed to produce any. Women play a vital role in ensuring food and nutritional security to the families. To optimally utilise their production across years, they store the harvest of one season for about five to ten years in their households. They also grow all types of vegetables in their backyards which includes plants that produce drinks. Twenty two village level women managed vegetable nurseries which are raised to share nutrition rich vegetable plants among the households. The seed mothers facilitated exchange of plants and seeds grown in kitchen gardens.

Building the crop diversity

Traditionally, ‘Shifting Cultivation’ was followed wherein families cleared the forest, ploughed land once in a year and grew diverse crops including legumes, beans, pulses and millets, in combinations. One of the most critical farming practices prevalent in these areas is the millet centered mixed cropping practices where in twelve to twenty one types of food crops are grown on the uplands along the forest track.

Drawing inspiration from the methods of age old shifting cultivation practice, the elder farmers of the area realized the need of mixed cropping on the uplands. The seed mothers enabled about 678 families to revive their mixed cropping to ensure steady flow of food all round the year. Farmers cultivated pulses like black gram, arhar, kidney bean and runner bean with cereals like corn, paddy and jana. Some farmers mixed the millets like foxtail millet and finger millet with vegetables like bhendi, kidney beans etc.

In Malkangiri, for instance, a village level seed mapping was done to know the availability of different varieties. Based on the availability of the seeds, the farmer groups in the villages were encouraged to exchange seeds and initiate mixed cropping on their lands. In about three years time, this process has brought in nine types of millet seeds which has reached more than 500 farmers from a mere 47 households. The farmers had also brought and exchanged traditional aromatic paddy varieties like Kalazeera and Machhakanta seeds. As per Mr. Bijay, convenor of Community Seed Fair, their members have reclaimed more than 100 acres of uplands and raising mixed crops.

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Community Seed Fair

Community Seed Fairs were organized from 2007 onwards by the farmer organizations to create a platform for the Seed Mothers and common farmers to cherish their seed diversity. These fairs organized immediately after the Kharif harvest, are enabling exchange of seeds as well as experiences. The seed mothers display the rich diversity of the seeds and abundance of natural resources available in the locality. Hundreds of farm women led by the Seed Mothers, demonstrate the richness of the biodiversity by displaying samples of various seeds. Scores of farmers from different places participate in these fairs and exchange seeds of all types. The Community Seed Fair 2009 at Malkangiri, for instance had inspired farmers from six different districts of the state to join them with their seeds. During the fair, a total of 231 farmers exchanged local aromatic varieties of paddy seeds. Forty seven adivasi farmers have sold 60 quintals of aromatic paddy varieties at rate of Rs. 1400 to 1700 per quintal (Kalazeera, Samudrabali, Atmasitala, etc.) replacing the certified seeds.

The Seed Fair is also used as a platform to sensitise people on the need to protect forests. About thirty adivasi women of Ranginiguda displayed 105 varieties of medicinal plant materials (crops, plants, leaves, roots, fruits, seeds, skin, wood & latex) along with 15 varieties of roots, eight varieties of leaves, mushrooms, cashew, tamarind, mahula, etc. sourced from the local forests during the Malkangiri Seed Fair 2009.

Spreading tradition far and wide

The number of ‘Bihana Maa’ or the seed mothers is growing. In three years time, 73 seed mothers have reached about 2800 small farm households helping them to switch over to traditional seeds and traditional methods of cropping. These women are also making efforts to sensitise the mainstream society about the richness of adivasi foods by organizing food mela during the official exhibitions at the district and the state level. They have been bringing in legitimacy to millet based crops and local foods by organizing community level seed fairs, food festivals and exhibitions. These are evolving as platforms for discussing wider issues related to food diversity.

Celebrating ‘Chasi Swaraj’ by footmarch

The foot march on promotion of traditional seeds was initiated on 12 February 2009 from Jharapalli village. It moved through 55 interior adivasi villages covering a distance of 60 kilometers. The volunteers with the foot march encouraged the ordinary adivasi farmers for their efforts of protecting the seed diversity of the area through a series of street meetings. Along the way the local farmer organizations had also organized gram panchayat level Seed Exchange fairs as women from villages joined with their seed pots and exchanged seeds among them. The foot march ended on the 9th day at Malkangiri celebrating the Community Seed Fair, wherein 5000 people participated. A book on ‘Adivasi Women Seed Keepers’ was released.

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