June 2015 volume 17 no. 2

LEISA INDIA

Magazine on Low External Input Sustainable Agriculture

agri cultures NETWORK INDIAN EDITION

Rural-urban linkages

LEISA INDIA

June 2015 Volume 17 no. 2

LEISA India is published quarterly by AME Foundation in collaboration with ILEIA

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PRINTING
Nagaraj & Co. Pvt. Ltd., Chennai

COVER PHOTO
Madanapalli farmer prepares produce for the market (Photo: S Jayaraj for AMEF)

The AgriCultures Network
LEISA India is a member of the global Agricultures Network. Seven organisations that provide information on small-scale, sustainable agriculture worldwide, and that publish:
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LEISA revista de agroecología *(Latin America)*
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Dear Readers

More and more people are moving towards urban areas for various reasons. This has also increased the demand for food while putting pressure on scarce resources. Urban life styles and food preferences also influence the type of food grown and the way it is grown to meet the growing urban food demand. Rural urban linkages play a crucial role in influencing the minds of consumers about the importance of safe food and the methods that need to be adopted in producing the same. The consumer demand for safe food becomes the prime driver in farming moving towards agro ecological way.

Majority of the examples presented in the magazine indicate that small farmers are shifting towards agro-ecological approaches, as the consumers are becoming increasingly conscious of healthy foods, creating a demand for it. Also, the experiences indicate that rural-urban linkages have a vast potential in preserving cultures, ecologies and economies of sustained urban and rural growth.

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

The Editors

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

ILEIA – the centre for learning on sustainable agriculture is a member of AgriCultures Network which shares knowledge and provides information on small-scale family farming and agroecology. (www.theagriculturesnetwork.org). The network , with members from all over the world - Brazil, China, India, the Netherlands, Peru and Senegal, produces six regional magazines and one global magazine. In addition, is involved in various processes to promote family farming and agroecology. The ILEIA office in The Netherlands functions as the secretariat of the network.

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

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Akhil Kapoor

'Food' as we all know it, is a common denominator amongst the people - whether produced by rural or urban communities. In India even more so, it is a great equaliser when it comes to the aspirational eating habits of rural and urban India. As a growing economy of the 21st century and impacted with dynamism in our economy, it is no surprise that aspirations of our people are fast blurring the rural-urban food divide, especially their eating habits, thus reviving the importance of these traditional linkages.

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Food systems that intend to meet the long-distance export and which are based on highly mechanical and chemical productions are not the solutions for the present day problems in agriculture. While we need not discover any newer forms of food systems or agriculture, we can revive ideas or systems that were being practiced in the past and are sustainable. Regional food cycles is one such system.

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Working lunch is in vogue but 'learning lunch' is a novelty, connecting city-dwellers with food-producers with an aim to let each farmer-find-a-friend for renewing rural-urban relationships.

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Pia Kieninger and Marianne Penker

In the past 50 years, about a quarter of Japan's cultivated land has been lost, threatening food production, cultural landscapes and biodiversity. One of Japan's most valued cultural landscapes includes rice terraces. In order to prevent them from abandonment, an innovative concept known as the Ownership System, was devised almost 25 years ago. This has today become a national movement based on the cooperation between rural and urban communities who combine food production with landscape conservation, cultural activities and environmental education.

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Rural-urban linkages

Changing urban food demand has many implications on the food supplies from the rural areas. Urban population is increasing all over the world, more so in countries like China and India. Indian Census 2011 indicates that around 91 million people are added to urban areas in the last one decade. A huge number indeed. Changing urban food demand, which depends on the changing lifestyles, changing consumer preferences and affordability, have a great impact on food supplies. In such a context, rural urban linkages play a crucial role in defining how food is produced, what types of food is produced and the way it is produced.

The articles in this issue indicate that sustainable rural urban linkages is not just about better economics – Simplistically meaning, consumers want good quality produce at affordable prices while farmers look for sustained demand for what they grow, fetching them a good price. On the other hand, rural urban linkages are important for offering several other benefits too – increasing awareness of urban consumers of rural realities, understanding mutual dependencies, encouraging support for preserving traditional and unique rural landscapes and cultures.

Producing safe food

The first challenge is production of good quality organic produce which begins with enhancing capacities of farming communities in cultivation practices, not once in a while, but regularly. It is important to help and guide farmers to get back to organic ways of cultivation. Whether it is certified organic which creates confidence in the consumers or PGS based on belief systems too, consumers do show interest. For instance, Sahaja Samrudha illustrated that through enabling marketing linkages, direct marketing of the organic produce to retail outlets in this case, it is possible to help farmers switch to agro ecological ways of farming. Also, the article highlights that institutional forms like producer organizations need support and take time to get established. (G Krishna Prasad and B Somesh, p.15)

There are evidences that the educated youth are taking immense interest in spreading the agro-ecological ways of farming. Students of Agriculture College in Tikamgarh, Madhya Pradesh helped 25 small farmers to adopt organic farming. By linking with the urban consumers, they ensured that these farmers continue to farm organically and make a decent livelihood. (Yogaranjan and Kamini Bisht, p.28)

Creating demand, creating markets

Creating awareness and demand for good quality produce seems to be the prime driver for farmers to get back to agro-ecological approaches to farming. A number of producer-consumer sharing events are being organized to create awareness among the consumers on the importance of healthy food. Besides this, new movements are creating new energies and synergies. Movements highlighting concepts in practice include - 'Future foods from the past', 'Pleasure of good food', Slow foods, Consume Green etc. Another way is to link with food habits, preferences and traditional cultures and cuisine, enabling diverse stakeholders like Chefs to participate with live cooking of traditional foods. For example, the Delhi Organic Farmers market (Akhil Kapoor, p.6) which is organized on a weekly basis brings together diverse age groups, young and old – creating new enthusiasm.

Changing life styles, changing food habits, thereby lack of market often lead to disappearance of healthy and traditional varieties. Creation of new markets create demand for lost or disappearing varieties, often leading to then revival. For example, farmers in Pokhara in Nepal started cultivating a traditional rice variety *Anadi*, when an assured market was created by a farmer entrepreneur. This initiative also helped in improving resilience as well as conserving local biodiversity (Epsha Palikhey *et al*., p.22).

The key to success seems to be adaptation to changing preferences through diversity of products, innovative processes of collectivisation, backstopping by civil societies, and formal supportive financial mechanisms. However, there are challenges like creating the right institutional framework (eg. Producer organization) or maintaining dynamic and transparent pricing policies. In spite of robust producer consumer institutional frameworks, keeping track of fluctuating consumer preferences is a challenge, especially in dealing with a future demand. Mobiles seem to be helping

the farmers to know the differential demands in the neighbouring regions to come up with suitable pricing. For example, a poultry farmer in Jammu district adjusts the bird production schedule based on known consumer preferences, especially around festive occasions. Also, ICTs seem to be breaking barriers in helping create a limited mechanism of demand based production where possible. For instance, Farmily, a mobile app has been designed as a platform for bringing the consumers and farmers in direct contact.(p.30)

Photo: Sahaja Samrudha

Saraswathamma grows marigold as trap crop in cauliflower

Alternative models

To address the food supplies for the ever increasing urban population, alternative models of food production are coming up. For example, Community Supported Agriculture (CSA) in China is one of the best examples of a successful, alternative food distribution system, providing real income to producers and affordable healthy food for consumers. Food continues to be grown in peri-urban areas and trust between producers and consumers is strengthened. Over 500 CSAs with 75,000 consumers are now contributing to new food systems in more than a dozen cities across the country.(Judith Hitchman, p.17)

Another innovative concept known as the Ownership System, was devised almost 25 years ago in Japan. This has today become a national movement based on the cooperation between rural and urban communities who combine food production with landscape conservation, cultural activities and environmental education.(Pia Kieninger and Marianne Penker, p.34)

Creating regional food cycles is yet another innovative concept. In an initiative by the Development Voyage,the market, farmers cooperative, the biofarm etc are combined to develop it as a prototype of sustainable regional food cycle. It is a model to link the organic farmers, food processors and consumers of organic food, all within a region.(Tulsi Giri, p.9)

Strengthening linkages

For strengthening the linkages on a bigger scale, enabling policy perspectives and conditions are necessary. These include debates on need for sustainable urban planning - integrating urban consumer needs with needs and rights of peri urban producers. Similarly, not only for economic reasons, for sustainable livelihoods, ecologies and cultures, and regional food cycles, rural urban linkages are necessary. Increasingly, urban dwellers are moving towards rural landscapes to experience leisure. Concepts like 'learning lunches' build awareness on production of safe foods and the challenges. This is emerging into a new trust worthy relationship of 'Friend of Farmer'. (Sudhirendar Sharma, p.26).

Majority of the examples presented in the magazine indicate that there is a shift towards agro-ecological way of farming, primarily supported by an assured market. Also, the experiences indicate that rural-urban linkages have a vast potential to preserving cultures, ecologies and economies of sustained urban and rural growth by linking demands, needs and capacities. Most importantly, the consumers are becoming increasingly conscious of healthy foods, creating a demand for it and in turn strengthening small farmers pursuing agro-ecological approaches.

Photo: Author

A weekly market by the Delhi Organic Farmers Network

Connecting to cultural roots

Akhil Kapoor

'Food' as we all know it, is a common denominator amongst the people - whether produced by rural or urban communities. In India even more so, it is a great equaliser when it comes to the aspirational eating habits of rural and urban India. As a growing economy of the 21st century and impacted with dynamism in our economy, it is no surprise that aspirations of our people are fast blurring the rural-urban food divide, especially their eating habits, thus reviving the importance of these traditional linkages.

India has always been an agrarian economy with deep rooted ritualistic eating habits. We Indians have always favoured our own versions of global foods, yet, still have ambitions to explore new global flavours. We have a strong palette which resists any change to traditional recipes yet there is a large urban community who would like to experiment with the global dishes and culinary concepts.

With these insights into the Indian food habits, we started an initiative in Delhi to bring the farmers, growers and the producers on a common platform. We felt that within a large population of highly urbanised city like Delhi, people do not have access to vegetables and fruits which are grown in the traditional organic and natural way. This prompted us to conceptualise our initiative as a platform to promote traditional ways of farming, growing, cultivating, processing and cooking – all with the local and seasonal produce.

The idea was simple - to provide access to the freshly grown seasonal vegetables, staples and the lost grains and millets and to show the urban people how to cook various traditional recipes. This simple food philosophy was conceptualised and brought to life by Consume Green or C-Green. C-Green

> The live cooking sessions every Sunday at this Organic Market re-enforced our belief that it's the pleasure of food which connects us all to our cultural roots.

works extensively towards the revival of the traditional Indian food wisdom, thereby re-enforcing the rural-urban linkages.

Consume Green which is a proponent of local and seasonal nutritious food, introduced the philosophy of Slow Food in Delhi. With its 'good, clean and fair' food concept, Slow Food is well aligned to working with seasonal and local farm produce. Bringing the global chefs and cooks to India creates global food alliances besides exposing the aware urban Indian to richness of own food heritage. In this light, C-Green's philosophy of researching the 'future foods from the past' is an exceptional example of social entrepreneurship to create rural urban social groups such as organic farmers market network in Delhi to promote the 'pleasure of good food'.

The Delhi Organic Farming Market

We started networking in 2013. We were clear about our norms. Farmers had to be practising organic farming to become a member of Delhi Organic Farmers Network. To keep the carbon footprint to minimum, we chose only the local and regional organic growers. Since organic farming areas around Delhi are located in small privately owned pockets, we trusted the family farms and individual farming initiatives over expansive big farms and industrial names. With traditional agro-ecological practices being increasingly followed, we were encouraged by a large number of farmers who have adopted the Indian vedic Bio-dynamic organic farming methods and who were keen to join our initiative. This helped us in developing our Organic Farmers Market Network in north India around the availability of seasonal and fresh farm produce, which is sold at a fair price decided by the farmers themselves.

Besides organic farmers, the network includes primary producers, chefs and buyers. The network is also supported by small environmental and social initiatives. Typically over the last two years, we have had 5-6 vegetable farmers and exotic veggie growers, 1-2 staples farmers, 1-2 chefs & home cooks, 2-3 producers, 1 fruit vendor ,1 dairy farmer and 1-2 urban environmental initiatives supporting us every week.

The Delhi Organic Farming Market (DOFM) is a weekly market organised every Sunday morning. A core group of 3-4 members assist in coordinating the market in terms of theme, activity, market logistics, fee management, media posts etc. All participating members are responsible for transporting their own goods to the market every week. For farmers it means a trip before Sunday market to farms located around 100-150 kms away to arrange the fresh harvest. On Sundays, they are at the market by 7 AM. Based on quality of produce and customer demand, each producer comes up with a Fair Price which is consistent within a reasonable band. This is based on the season, market conditions, customers reasonability and area clientele criteria. Open feedback has indicated that majority customers consider 50% to 200% above the in-organic price point as fair-price which they are willing to pay on a regular basis for the quality of genuine organic produce at DOFM .

We have various levels of checks and verification to ensure a high level of integrity amongst our members to ensure a high level of the buyer seller trust. All DOFM Network members follow the market guidelines on transparency, openness to ensure buyer trust. To ensure credibility of Organic produce each member has a transparency sheet on display showing the details of each farm, geo-location, area, land ownership, farming history, present and future cropping pattern & awareness of bio-dynamic and organic farming practices etc. DOFM is a part of Slow Food Earth Markets Network & already looking at replicating it in some of the chosen target cities /urban pockets.

Presently, the DOFM is organised every Sunday morning at Chanakyapuri New Delhi. The live cooking sessions every Sunday at this Organic Market re-enforced our belief that it's the pleasure of food which connects us all to our cultural roots. DOFM has seen the best footfalls of 1500 on a good Sunday with a similar number of likes and following on our FB page/digital medium. We are looking at expanding it to Malcha Marg in Central Delhi during mid-week. In due course we plan to organise it in near by areas of Delhi national capital region like Noida etc.

Though matching supply and demand is a constant challenge, farmers are overcoming it by creative means. Most farmers have created additional customers outside the market, and are able to sell their produce to them. At times if the seasonal produce is in excess, the in-house home cooks and chefs at DOFM create a special menu for the Sunday live cooking. In the event of a bumper harvest, farmers either land up mulching it back into their farm lands or use it internally within the DOFM community.

Healthy food, a means of bonding

We have maintained a very high level of credibility even in a vastly commercial and whole sale mass agri market like Delhi. Our due diligence and verification methods rely more on knowledge and wisdom of traditional methods than mere certifications. Our patience and painstaking efforts have resulted in this Organic Farmers Market Network becoming a hallmark in user- farmer relation, which is based on integrity and trust. Our initiative re-defines the growers relationship with their customers, where the farmer, like a family

Photo:Author

Visitors to the weekly market tasting the cuisine

physician, knows most of his customers personally. With such level of openness and trust amongst our patrons, the individual health concerns and benefits of different foods finds an amazing open learning space.

People across ages have acknowledged the organic market to be a happy hangout place to interact and make friends, where the farming and health knowledge comes for free. It is a place where people across generations come together to share their childhood farming stories, food habits and love for health and pleasure of food. What a reassuring sight it is when a young parent, trusting the source of food at C.Green live kitchen, feeds her child of few months from her own plate and comes back to tell us how her child, who normally is a fussy eater, loved the millet cuisine served by us. Or watch a little girl feed her 'dadaji', who in turn suggests a visit to a nearby farm to share his childhood farming experience.

We feel that with this kind of successful user experience, our rural-urban initiative which is based on sound principles of agro-ecology and multi-functionality looks highly sustainable and is here to stay. This has amply demonstrated the feasibility of such projects to being sustainable within the context of total organic market potential in a region. A customised replication of DOFM model is likely to prove more sustainable, within the capabilities and limitations of a different urban target area. DOFM's association with Slow Food is expected to give the organic initiatives a huge impetus across India in general and within target urban cities in particular, making such social initiatives even more sustainable globally and spread this philosophy across geographies in the future.

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Sustainable regional food cycles in Nepal

Tulsi Giri

Food systems that intend to meet the long-distance export and which are based on highly mechanical and chemical productions are not the solutions for the present day problems in agriculture. While we need not discover any newer forms of food systems or agriculture, we can revive ideas or systems that were being practiced in the past and are sustainable. Regional food cycles is one such system.

In the next decades, the Asian middle-class will become the world's most important consumer group. Also in Nepal, the middle-class is becoming visible, demanding alternative products to match its new lifestyles. Fresh consumerism is creating new (global) markets and wealth in the country. Market is playing vital role in shaping our everyday life while our communities are rapidly changing with globalization. Dreams of becoming 'modern and developed' as defined by GDP economy have altered the focus of every society. Especially, the 'developing communities' are losing their basic essence and are struggling to grab those dreams of a changing era.

A practical training session in progress

Photo:Author

One of the most affected are our communities and cultures that are based on production activities i.e. agriculture and food. Many people are leaving farming, or are being forced to leave farming. Reasons could be many, but, primarily driven by lack of 'economic incentives'.

Leaving their self-reliant households, more and more young people in Nepal are migrating to cities or foreign countries in search of alternative incomes. Farming is less interesting especially for younger generations because of reasons like a) farming is not respected as a decent 'job' as compared to 'white collar' jobs that the modern economic market offers in the cities, b) 'family farms' are subsistence in nature which doesn't provide higher 'economic returns' to match the changing needs of modern societies, c) farming as a job or business is definitely difficult and prone to different factors like harsh weather conditions which are out of human control, thus making it, many times, highly uncertain.

When the smallholders and family farms are facing the harsh realities, modern economic institutions like corporations and industrial farming companies are getting further opportunities. Thus, local producers in Nepal (and many other developing communities) lag behind in the global competitions, face environmental crises and are at risk of losing their livelihoods.

Realization

Border regions suffer from rural migration, especially among young people. This has a huge impact on regional economic development as well as food security. Countries like Nepal need initiatives fostering balanced growth, counter social imbalances and environmental damage. Production of, and awareness about, sustainable (organic) produce is part of the solution. Studies show that 'organic produce' is a major opportunity for a competitive advantage in agricultural sector.

It is already clear that our food systems based on long-distance export and highly mechanised and chemical based production are definitely not the solutions. We do not need to discover any newer forms of food systems or agriculture, either. We just need to stay calm, and understand what our older generation was doing, how they were farming and sharing food among communities.

A food cycle links rural regions with the city – it links the people working in organic farming, food processing and distribution with the consumers of organically produced food.

Photo:Author

The Bazaar – Model Shop

The idea of 'regional food cycles' was in existence before the globalized world started. The communities were self-sustained. The border regions were exchanging foods among themselves, and our societies were thriving with cultures and community living. Our basic idea is to revisit and revitalize already existing idea struggling to cope with modern changes and development. Without any exception, the modern technologies and innovations can go hand-in-hand with legacy to generate extra-ordinary results - more sound, more sustainable.

The Bazaar

In 2009, Mr. Tulsi Giri and Mr. Tanka Raj Subedi, two young friends, decided to take-up the challenges. They started a company 'Development Voyage' aiming to instill the concepts of sustainability in the markets of Nepal. Inception of *'The Bazaar: Market for Fairtrade and Organic'*, a supply chain management business, *'Saathi Bio Farm'*, a permaculture/organic farm with training character, and *'Organic Living'*, an agritourism service business (www.organiclivingnepal.org), were initiated. Initiation of *'THE BAZAAR Agriculture Cooperative'* in 2012 together with its partner farmers has been successful. Our businesses are located in Pokhara, one of the important tourist regions in Nepal and second biggest city in the country.

It all began in 2008 when Tulsi and his friends were organizing 'Youth in Sustainable Development' project in Rivan village around 20 km north to Pokhara, a place where Tulsi was born. The project resulted in developing interest among the youth of Rivan to establish their cooperative for organic vegetable production, fish farming and community tourism as their livelihoods options. Many of the returnee migrants from Rivan joined the project. With the establishment of the producer cooperatives, a need for market channel was the next challenge. Thus, Tanka and Tulsi

jumped into fill-up the vacuum and ride the entrepreneurial roller coaster. Until 2012, the farmers from the cooperative in Rivan and 'Saathi Bio Farm', established by them, were supplying organic vegetables for first retail outlet of *The Bazaar*. Gradually, the sales of the business picked up. Customer flow and cash flow both increased. More farmers from other communities wanted to join the network, which gradually provided base to establishment of our idea of 'regional food cycle'.

The Bazaar (www.thebazaar.com.np) is the flagship brand of our company that provides supply chain management services to the smallholders in the peripheral regions of Pokhara. The core idea is to develop it as a prototype of sustainable regional food cycle in border regions, which can be multiplied to other border regions. We believe that organic farming by small/family farms is the basis of the food cycle. Selling the products in the near region brings economic impact. The sustainable regional food cycle is the future to feed the planet in a sustainable way.

"A food cycle links rural regions with the city – it links the people working in organic farming, food processing and distribution with the consumers of organically produced food. It unites the partners in commons and cooperative structures. At the core of the food cycle is a new concept of sustainable tourism adding necessary economic value to the network."

At present, *The Bazaar* provides supply chain and market facilities to more than 300 smallholders who are all associated with *The Bazaar* Agriculture Cooperative. Our farmers are distributed in more than 7 villages around Pokhara. They are of different nature, some are individual farms, and some are organized into farmer groups while others are involved in the community based production cooperative. In Pokhara, *The Bazaar* has 2 shops (one wholesale and one retail) with direct delivery services through which it reaches the customers. It also provides logistics to all the producers to carry their products to the city. The cooperative provides our partner farmers with the technical knowledge and expertise in organic farming, saving and credit facilities as well as assist them with linkages to appropriate stakeholders ranging from government services to input providers. Partnering with different stakeholders including District Agriculture Development Office (local government body), *The Bazaar* initiated 'Participatory Guarantee System (PGS)' in 2013 as the best method to provide quality control and trust between the producers and consumers.

The beauty of our supply chain is that our facilities support those farmers who would otherwise have no market channels to sell their very small produces. The cooperative is formed to address both production and sales challenges for organic produce. On the production side the cooperative is building local capacity and coordinates with producers to increase volume, variety and quality of organic produce. On the sales side, the cooperative sensitizes the middle-class Nepali consumers to opt for fair-trade and organic produce. Once production and sales is connected, farmers and *The Bazaar* have access to information on actual demand and supplies. The connection also allows the cooperative to save profits and support marketing campaigns, agricultural innovations and policy advocacy.

Future developments

Obviously, it was not so easy for the company to go through all the above-mentioned achievements. It hasn't yet reached the stability. We have faced many challenges and hurdles in each step. It is not just the hardship to financing the idea of 'regional food network'; but also, throughout the supply chain 're-engineering' is required. From availability of organic inputs to capacity of smallholders in organic and market-driven production, to access to technical and financial services, to awareness of customers and the facilitating market systems, among many others, are all in early stages.

Realizing these issues and based on our on-going experiences, we collaborated since 2013 with a social entrepreneur in Zurich, Switzerland (rundumkultur.ch) who was working on the same vision as ours: offering development opportunities to young people through the creation of sustainable regional food cycles. We are at the moment working in developing a vocational training and education program named 'Food Cycle Academy'. Food Cycle Academy will be the center for empowerment, initiative and qualification for young people and entrepreneurs from border regions. The existing businesses shall serve as training venues and examples for young entrepreneurs, who will learn how to build a sustainable future for themselves and their region. The academy offers study programs supporting the formation of sustainable regional food cycles in border regions around the world.

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Creating city region food systems

Emily Mattheisen

As cities continue to expand and more people migrate to urban areas, current unsustainable patterns of urbanization and ineffective policies are no longer acceptable. The typical approaches that maintain the separation between rural and urban, neglect the ways that connect both worlds. And, nowhere else are rural and urban areas more linked than within the food system.

The grocery market at Istanbul

Photo:Author

The expansion of cities and their increasing demands for food is paired with the challenges of improving rural livelihoods. Unsustainable consumption and trade continue to grow, and in particular the continued corporate takeover and dominance of the food and agriculture sector. This has left many urban families and their communities without access to affordable, nutritious, safe and fresh food. At the same time, these practices disenfranchise small-scale food producers and rural people, reduce rural livelihoods opportunities and exacerbate rural poverty. This begs the question – how can we make better development decisions based on a more inclusive framework?

Urban–rural linkages in the food system

Rural–urban linkages can be best supported through making real change in the food system. The food system itself is complex and many-layered, including flows, exchanges and impacts across rural and urban areas – from food production, distribution, processing, marketing, consumption and waste, as well as supportive infrastructure.

A revolutionary change in the food system is not global; it is small scale and locally based.

Many issues and interventions are being discussed by governments and civil society that seek to better connect areas through territorial approaches to governance at the local level. Improved relationships between producers and consumers, which also support vulnerable populations in rural and urban areas, are vital. For many communities, this means preserving traditional and public market spaces, improving social protection and food support programmes, amending public procurement policies, and supporting direct purchasing schemes and community supported agriculture, are some of the many interventions that are needed.

Local governments and authorities

Decentralisation of power and clear guidance for local authorities is key to carrying out international policy

commitments and human rights obligations to support integrated rural–urban planning. Food systems are particularly important in this regard, as law and policy that dictate food waste, labour conditions and livelihood improvement, public procurement, land for food (including public land), zoning for urban and peri-urban food cultivation and production, and food retailer placement, among others, are often in the hands of city, municipal or regional authorities.

There are some key players currently leveraging this sort of change. For many years, local government networks, including ICLEI: Local Governments for Sustainability and their annual Resilient Cities Forum, as well as the United Cities and Local Governments (UCLG) link local and regional governments together from cities of all sizes. Such networks seek to insert the needs and experiences of the local level into international policy processes as well as to build the capacity at the local level to engage directly with inhabitants, including those in peri-urban and rural areas away from urban centres.

From 'city' to 'city region'

Urban–rural linkages are also a fashionable topic in international policy discourse. They are discussed in international processes such as the preparations for the Third United Nations Conference on Housing and Sustainable Urban Development, or Habitat III, due to take place in Quito, Ecuador in October 2016. Similarly, the development of the Post-2015 Agenda and the Sustainable Development Goals, the controversial, corporate-dominated Global Expo in Milan, and local government initiatives including the Seoul Declaration and the Urban Food Policy Pact, all seek to address the challenges that urban areas pose by creating stronger local and regional frameworks.

Although there are many doubts and complications of the process and outcomes (such as the lack of meaningful inclusion of civil society) the Post-2015 Agenda and the Sustainable Development Goals have had important effects related to urban–rural linkages. Importantly, it led to the streamlining of territorial approaches to governance, also referred to as *city regions*. This is a new concept. The development of Sustainable Development Goal 11 to 'make cities and human settlements inclusive, safe, resilient and sustainable' and the work by groups such as the Communitas Coalition and the City Region Food Systems collaborative has really changed the way we think about what is 'urban'. They mainstreamed a new conception of the 'city region' as a replacement for the 'city' as our framework for reference when discussing sustainable urban development. Cities do not exist in a vacuum and this conception makes clear that urban and rural linkages must be present in any 'urban' goal or plan for development.

> A revolutionary change in the food system is not global; it is small scale and locally based.

Democratising local food policy

The current development of the Urban Food Policy Pact led by the City of Milan has engaged some fifty cities across the globe to share their experiences, challenges and needs in implementing local food policy. The pact seeks to create a governance framework for city region approaches, as well as participatory decision making directly with civil society and small-scale food producers, covering topics including governance, poverty alleviation, sustainable diets and nutrition, food production, supply and distribution, and food waste and loss. This is an important step to answer the question *how* local governments can improve governance and management of rural areas. It also addresses the need for food systems governance to be democratic and participatory, addressing the critical role of civil society in making those decisions in multi-stakeholder governing bodies at the local level. Food policy councils, collaborations between citizens and government officials, providing a forum for advocacy and policy development to create sustainable and just food systems, for example.

The City Region Food Systems collaborative is currently working together with different cities, civil society and international bodies and processes to advocate for integrated food systems planning or city region food systems. Urban areas are not the exclusive domain of any single set of actors or inhabitants, and rural communities have the right to benefit from urban development and vice versa. Technical solutions to feeding urban areas, as well as climate change, labour, climate change and investment must integrate the rural areas, as well as manage ecosystem services.

Meaningful changes

Although there is a resurgence of interest in the topic, stronger urban and rural links are not new. The original commitments in the 1976 Vancouver Declaration at the first UN conference on human settlements (Habitat I), and the Istanbul Declaration signed in 1996 at Habitat II recognised the critical links between rural and urban areas, and the need for balanced and holistic approaches to development. Habitat II went further, declaring that local authorities and general decentralisation of power structures are critical to implement and support these linkages. However, the initial preparations

for Habitat III and the continued direction of the UN-Habitat process make clear that these past commitments have been forgotten as they proceed with a solely 'urbanist' agenda. Pressure by civil society actors has resulted in a working group on rural–urban linkages within the Habitat process to closely follow the issues of city region food systems and land use. However, it remains to be seen if this will result in meaningful changes towards a more balanced and integrated urban–rural development.

Looking forwards

Looking towards Habitat III and the other emerging policy discussions, 'the right to the city' framework has become an important civil society and local government approach to the management of the city and its rural hinterlands. The right to the city advocates equitable use of urban space according to the principles of sustainability, democracy, equity and social justice. It is a collective right of the inhabitants of the cities and the surrounding areas, giving priority to vulnerable and disadvantaged groups. It is a framework and approach that at its heart, seeks to promote the realisation of human rights and protection of marginalised communities, through participation, respect to the social function of land, property and the city region, and the sustainable management of the commons. This framework also acknowledges the role that social solidarity economy plays in supporting many communities, and it is imperative that these contributions are recognised in international policy.

As we continue to fill and expand urban spaces, it is critical that we reconfigure how we understand these spaces, and how they are governed, how they interact and impact other territories, and how peoples in and around them can lead dignified lives. There are many exciting opportunities, but each also has many challenges and risks. Civil society, from urban inhabitants to rural producers, must play meaningful roles in setting the agenda at the global and local level, and once set, it is up to local actors to implement policies and create real change.

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Call for Articles

Women and agroecology: the strongest link

Vol. 17 No. 4, December 2015

Women are strong drivers of agroecological change on farms and in farming and consumer communities. One example is the women's movement for agrobiodiverse, pesticide-free crop production in India. In other places, women experiment with intercropping, vegetable box schemes and seed exchanges. What motivates them? And what role does agroecology play in improving the lives of women? Little has been published about this connection. *LEISA India* is looking for experiences that can improve our understanding of the role of women in promoting agroecology, and how agroecology has helped them to achieve their aspirations.

There are 500 million small scale farm families around the world, and 70% of the agricultural work on these farms is done by women. According to FAO, women could increase their productivity by up to 30% if they had the same access as men to land, water, seeds and credit. Often, we see that women use these productive resources to take up or strengthen agroecological practices. Closing the gender gap, as was called for by so many during the 2014 International Year of Family Farming, could reduce the number of the world's undernourished people by 12-17% (http://www.fao.org/sofa/gender/home/en/). Besides higher yields, working with an agroecological approach has additional benefits for women and for society as a whole, in terms of increased biodiversity, improved family nutrition, less pesticides use, and more community coherence.

We have long known that women hold important agriculture and food knowledge, and that they are a force pushing for agroecological changes that lead to resilient farming. Where men tend to focus more on economic gains, women's ultimate concerns tend to food sovereignty and nutrition, social stability and peace, and the conservation of biodiversity and natural resources. These concerns are echoed by thousands of women who walk the streets of Brazil in March each year calling for agroecology.

We want to have a closer look at what motivates women to inspire positive progress in farming, and how agroecology is or is not helping them to achieve their goals. What direction do women envisage for family farming systems? What role does agroecology play? What happens within the household, in the community or in the broader (socio-political) environment that supports or hinders them? Does agroecology mean more or less work for women, and what are the qualitative and quantitative changes they experience? And what role do women's organisations play in building a better future for the women and their families?

Articles for the December 2015 issue of LEISA India should be sent to the editors before 1 October 2015. E-mail: leisaindia@yahoo.co.in

From farm to plate

An initiative of Sahaja Organics

G Krishna Prasad and **B Somesh**

Providing direct market access to the farmers plays a crucial role in the economic development. Farmers markets are an integral part of the rural-urban linkage and have continued to rise in popularity with the growing consumer interest in obtaining fresh products directly from the farm. Sahaja Samrudha, an organisation led by farmers and farming experts is bridging the gap between farmers and consumers through one of its initiatives.

Photo:Sahaja Samrudha

Celebrating maize diversity

Sahaja Samrudha, meaning 'Bountiful Nature', works with farmers to preserve and improve indigenous crop varieties, and builds a people's movement in conserving the rich biodiversity. It primarily started as a farmers' initiative to exchange ideas, seeds and share knowledge on sustainable agriculture.

Since Karnataka does not have an exclusive market to sell their organic produce, farmers who followed the organic methods of farming were unable to market their produce. This resulted in they ending up in a common market, thereby defeating the whole purpose.

Sahaja Samrudha has developed a connectivity network of consumers and producers for procurement and marketing under the brand name "Sahaja Organics". Sahaja Samrudha Organic Producers Company Ltd., has been formed to market organic produce. Presently, the company has over 750 organic producers, who are also the shareholders. This apart, the company has around 2500 farming families (30 farmers' group) in its network.

The Producer Company will facilitate farmers to exhibit and sell their produce with a good price ear marked. The produce is procured directly from the farmer and supplies it to the network outlets. This chain has been created for the produce to reach the consumer directly. The firm pays a premium price of 15-20 percent higher than the traditional market price, while it retains a nominal amount for its sustenance.

Sahaja promotes only organic and traditional crops of rice, millets and pulses. These crops are in great demand in the urban areas for their nutritional value and medicinal value, especially the millets and red rice. Being one of the largest wholesalers of organic grains in the state, it supplies organic products to around 80 retail outlets in Bangalore and around. However, the company has only one storehouse and retail outlet.

In addition, as a direct sales initiative, it organizes annual red rice melas, seed festivals and safe food melas in cities, tier-2 and tier-3 towns in which the farmers sell their produce to consumers at a fair price. The fairs attract a crowd of 10,000-20,000 people. These dedicated farm markets allow consumers to have access to locally grown, farm fresh produce, enables farmers the opportunity to develop a personal relationship with their customers, and cultivate consumer loyalty with the farmers who grows the produce. Direct marketing of farm products through farmers markets continues to be an important sales outlet for agricultural producers nationwide.

Direct marketing of farm products through farmers markets continues to be an important sales outlet for agricultural producers nationwide.

Turn around

Initially, being a producer company, Sahaja started with a policy that it will solely depend on farmers' money. The producer company in the year 2010, started with a capital of Rs 5 lakh, raised through pooled funds from farmers and farming groups.

However, during the first year there were losses incurred and the capital got exhausted. During 2011-12, an additional capital of Rs 3 lakh was raised. In addition, an amount of Rs.5 lakhs was received from the bank by which the operations could be scaled up. Even with a turnover to Rs 53 lakh, the company had to incur a loss of Rs 1.5 lakh. In 2012-13, the company raised funds from NABARD and also increased its volume to Rs 83 lakh. But the target was one crore and it failed to meet the expectation due to persistent drought situation. The company continued be a loss making unit, with an accumulated loss of Rs 10 lakh. It was only in the fourth year, that the company got a breakeven, with a turnover of Rs 1.27 crore. In 2014-15, the company's turnover increased tremendously to Rs 3.6 crore and it made a profit of Rs 30 lakhs. Out of this, Rs 5 lakh was distributed to the famers and some money was pooled back into the business.

Throughout this period, the company has tried and tested various business models – changing from a retail concept to completely being a wholesaler. Despite all this, the company never reduced the margin it gave to farmers, while it continued to focus on scale and earn meagre profits.

Organic vegetable growers group – a case

On the outskirts of Bangalore, organic vegetable cultivation started in few villages surrounding Mayasandra village of Anekal Taluk. The farmers here are traditional vegetable and flower growers. The farmers here, just like any other village, had wide spread monocropping of single vegetable and also wide spread flower cultivation. The area is renowned for beetroot and carrot vegetables.

The initial work started with about 150 farmers, converting to organic. Down the three year period, the numbers dwindled to only a few continuing with organic farming practices.

In the beginning, there was a lot of reluctance to start organic marketing in the area as the farmers had to travel around 40 kms to reach the city markets. But with a few dedicated farmers the whole initiative of community marketing that began with only about ten farmers later increased to twenty and then to more than 70 farmers regularly supplying to the market. The farmers came together in a group 'Sahaja Savayava Tharakari Belagarara Sangha' and began collecting vegetables in a common area and supplied to the market.

The farmers here were encouraged to diversify from few vegetables to meet market demand. From a few types of vegetables, the farmers widened their produce to include more than 40 varieties that are supplied to various outlets in Bengaluru and some out of the state. Consequently, the farmers' turnover has increased from as low as Rs. 700 a day to more than Rs. 5 lakh a month.

Even landless farmers are encouraged to grow vegetables and be able to earn for their livelihood. Mangala, a women farmer has no land, but earns about Rs.1500/- a month with growing only curry leaves and leafy greens in the vacant area around her house.

This farmers' group has reached out to diverse markets channelizing through Sahaja Samrudha Organic Producer Company - by sale to leading supermarkets, specialist organic stores, or directly to consumers via organic farmers' markets. Organic markets are being held monthly once in different venues and areas mainly to reach out to consumers. This has helped build a brand of our produce, now it is popularly known as 'Sahaja Veggies' all over.

Weekly five days the market takes place; all the farmers bring in their produce depending on the day's demand for vegetables. Quality is an important aspect that the farmers look into and grade their vegetables and then measure and supply to the various outlets. Payments are made on a weekly basis. The farmers here are being certified by IMO, a highly recognized certifying agency, which runs the farmers through stringent monitoring and evaluation process.

66-year-old farmer, Nagaraj from Hosahalli, who grows carrot and beetroot says that, after the direct market access, he has benefitted a lot and his income level has doubled since last four years. *"If the market price for the carrot of normal variety is Rs 12-18, I get about Rs 25-35 for my organic produce through Sahaja. Even if we deduct a nominal charge for the Sahaja initiative, we still end up getting 60-80 percent higher for our produce,"* Nagaraj says.

Though farmers in this region have small plots that range from 0.5 acres to 2.5 acres, farmers here lead a dignified life. Organic vegetable farmers grow a variety of vegetables and maintain livestock which ensures optimal use of nutrients, and additional economic advantage.

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Community supported agriculture, thriving in China

Judith Hitchman

Community Supported Agriculture (CSA) is one of the best examples of a successful, alternative food distribution system, providing real income to producers and affordable healthy food for consumers. Food continues to be grown in peri-urban areas and trust between producers and consumers is strengthened. And China has not been left behind by this global movement, over 500 CSAs with 75,000 consumers are now contributing to new food systems in more than a dozen cities across the country.

Photo:Author

Shi Yan and her husband Cheng on Shared Harvest farm

Feeding the world's growing cities has become ever harder over the past 50 years. Migrants from the countryside used to have supplies sent from their families, or could buy from local farmers at street corner markets. But much of this has disappeared, replaced by industrialised agriculture, identical products, multinational corporations, and supermarkets. Added to this, to tackle climate change and energy transition, we must do everything to preserve agricultural land, particularly that is close to major cities. And with this, develop alternative food systems that support sustainable production of safe, healthy food that is available to all. This is the context in which Community Supported Agriculture has emerged: an alternative, locally-based economic model of agriculture and food distribution, in which consumers pledge to support one or more local farms, and share the risks and benefits of food production.

Chinese consumers, particularly the new middle class, are hungry not only for new foods, but also for new food systems. In the wake of various large-scale food scandals, food safety is a major concern for both the government and consumers. Compounded by pollution, pesticides and chemical fertilizers, trust in industrial farming has been undermined. Many people are buying food labelled organic, and for about the last seven years, more people have joined CSA groups. While a relatively new phenomena in China, there are already around 500 CSAs, with a membership of about 75,000 consumers and these figures are growing fast! The citizens and farmers involved in these initiatives have created a national network to be able to share knowledge and other resources, and are also part of Urgenci, the global CSA network.

China's first

In 2008, Shi Yan, a soft-spoken but determined graduate from Renmin University, Beijing, helped to set up one of China's first CSA farms, called 'Little Donkey' (http://www.littledonkeyfarm.com/plugin.php?id=aiview_dzx:pages). It was a joint initiative between her university, the district government, and the Renmin Rural Reconstruction Centre.

Shi Yan became the chief operator. She had been inspired by her experience in 2008, working with Earthrise Farm (http://localfoods.umn.edu/earthrisefarm), a small CSA in Minnesota, USA. "It changed my life," says Shi Yan. She arrived there thinking that she would study its business model, "but when living there, I realised that it's not just a model, it's a lifestyle, and although I was concerned about rural issues, I never thought about living in a village." But seven years ago she moved to the northwest corner of Beijing's Haidian district to manage the farm, going against the trend where young people are abandoning rural villages for jobs in the city.

Little Donkey bucked another trend in Chinese agriculture. Chinese farmers are now among the world's biggest users of chemical inputs, but cultivation at Little Donkey is chemical free. Although not certified organic because of the

Photo:Jan Douwe van der Ploeg

CSA members harvesting carrots on Little Donkey farm

high certification costs, they do not use any chemical fertilizers or pesticides. They build soil health with knowledge and techniques from traditional practices, permaculture, and 'natural farming' principles of the South Korean farmer Han Kyu.

Little Donkey has 'working share' and 'regular share' members. Those with a working share rent 30 square metres and are provided with all material inputs such as seeds and organic fertilizers, tools and technical assistance to grow their own vegetables. Those with a regular share sign up for a weekly supply of seasonal production, which they can either pick up from the farm, shops and restaurants in the city, or have delivered to their door. Most payments are made online. Little Donkey currently has around 700 members, most of them residents of Beijing city. The farm is also used for training and research and is a hub for community activities with the possibility to organise visits and demonstrations of ecological farming.

More than production and consumption

Shi Yan recently moved on from Little Donkey and now works with another farm, Shared Harvest, with her husband and his parents, where they rent land from the village authority. They employ 25 mostly young people who studied agriculture at university and are motivated to live a more communal, fulfilling life, and to practice what they learnt at university.

The Shared Harvest CSA includes 500 families, four groups of parents from local schools, and organic clubs and restaurants in Beijing. Another community building aspect is the 'Earth School', where school children come to learn about ecological farming and the environment, how food is grown and what it looks like. Intent on nurturing the community, Shi Yan also set up a clothes exchange on her farm, and in November this year, the national network of about 500 groups will hold their annual conference in the area, including visits to her farm. This conference will also be back-to-back with the Urgenci International networks conference, with more than 50 international participants. Shi Yan keeps a popular blog (http://blog.sina.com.cn/usashiyan) about all these initiatives.

'New farmers'

Since 2008, more CSAs have popped up in China, so what makes them so popular? Besides consumers finding that CSA offers the alternative food system they are seeking, another big reason why it is taking off is because it provides an opportunity for educated youth, so called 'neo-rural' or 'new farmers', to return to their roots. Young, qualified graduates who moved to the city to study, are becoming disillusioned by the bright lights and city life. And they are increasingly choosing to return to their villages. Caring for elderly family

A map of CSA farm welcomes the visitors

Photo:Author

members is another reason for many young Chinese to choose to return to their villages, as grandparents are often left alone when children and grandchildren all work in the cities. These 'new farmers' lead many of China's CSAs and this is also the case in the rest of the world. In many cases, they even leave behind stable employment and a good salary in the cities.

Liu Yueming is one such new farmer. She moved to Beijing and qualified as a biologist, but after working there for some time, she decided to move back to her family farm in 2010. She explained that the move has allowed her to be closer to her grandparents, and also to be able to spend more time with her own son. Liu employs 15 people on her eight hectare farm, most from the local village. Half the land is rented from the village authority on a 30 year lease, the rest is rented from different families in the village. She began working with 20 families, with just one rundown polytunnel, but with government support she now has seven more. Today, 400 nearby families choose between four different weekly vegetable boxes for periods of six or 12 months. Much of the communication between members and the farm is via Weibo, the Chinese version of Facebook.

Protected peri-urban land

Like Liu Yueming, new farmers can usually rent additional land, either from other families or from the local authorities. In fact, with a shortage of people to work on the land in the villages, CSA has been welcomed with open arms. Protected peri-urban land dedicated to agriculture is common across China, and supports the spread of CSA. It provides access to fresh organic food and a viable model for new farmers to return to the land.

Farmers markets

Most of Liu's produce is dedicated to feeding the local community, but she sells surplus produce at the Beijing Farmers' market, one of a dozen across China operating together with CSAs. The market manager makes arrangements with farmers who sell their own produce. The clients of these markets are mainly the new Chinese middle class and foreigners, looking for high quality, fresh, organically grown food but who don't want to commit to joining a CSA. Certification is not yet common, but the Chinese network is in the process of setting up a participatory guarantee system.

> Young, qualified graduates who moved to the city to study, are becoming disillusioned by the city life and are increasingly choosing to return to their villages.

What is Community Supported Agriculture?

The CSA model was born in Japan, where in the 1970s, as a result of mercury contamination (the famous Minimata disaster), a group of Japanese housewives started sourcing their food directly from organic farmers. This was known as Teikei, and the network is still flourishing in Japan today. The movement went global, with Urgenci, a network of national networks, now bringing well over a million producers and consumers together. There are also many thousands of groups that are not part of networks, especially in the USA.

So how does it work? Consumers commit to buying from a producer, or group of producers. A key point is that the consumers commit to buying on a regular basis and, at least for a whole growing season. This means that they share both the risks and benefits from the growing season. Payment is usually made in advance, but can vary, to allow those in difficult situations to still get fresh healthy fruit and vegetables.

Distribution models vary between countries, and even from one group to another. In some cases, boxes are prepared on the farm, and there are a number of drop off points in the city. In others, consumers are far more involved, assisting with planting, tending, harvesting, packing or distribution. There is a lot of good humour and exchange, and this is where community spirit is built. Many groups also have special festivals and newsletters to keep their consumers informed.

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The legal situation of the farmers markets is uncertain. Theoretically, markets require a permit, but at the same time, famers are allowed to sell their produce freely. Another issue, at least in Beijing, is that refrigerated trucks must be used to transport all food into the city, and farmers near Beijing now work together to transport their produce to the market in this way.

What does the future hold?

It is impossible to know how the CSA movement will evolve in China, but the government is looking closely at the model as a supplier of safe and healthy food to the cities. But they could also favour other forms of production, namely partnerships with private companies. However, the number of such groups grows every year, proving that this food system, involving farmers, consumers and local authorities, is popular. Individuals such as Shi Yan have done much, with institutional support such as from Renmin University and the cooperation of local authorities.

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Photo:Author

Sardar Janak Singh in his poultry farm

Connecting with the Urban

A case of poultry farming

Amandeep Singh and **Pranav Kumar**

Poultry rearing is a traditional and age-old practice in rural areas. It is recognized as a potential tool to fight poverty and malnutrition. Establishing good linkages among the rural producers and urban consumers will go a long way in sustaining this rural enterprise.

Sardar Janak Singh, hails from a small village named Tanda, in Ranbir Singh Pura taluq in Jammu district. He attended a free training on poultry rearing by the Department of Animal Husbandry of J&K State for 15 days. Following the training he set up a poultry unit with 8000 chicks in 1991, with an initial investment of Rs. 1.25 lakhs.

The farm is located in East-West direction and well equipped. All the technical specifications are followed for good poultry rearing. The chicks are purchased from neighbouring Punjab

and Haryana states. He purchases feed from Punjab and provides his birds with three different classes of feed *viz*. pre-starter feed upto first 10 days, starter feed upto 23 days and finisher feed for rest of the time of the flock in the shed. As far as the vaccines are concerned, he follows proper vaccination schedule meant for the broilers. The brooder stock is shifted to respective sheds at 2 weeks of age. After marketing of one flock of birds, the sheds are fumigated.

Linkages lead to sustainability

Sardar Janak Singh has developed both backward linkages as well as forward linkages. He has developed contacts with the hatcheries in the nearby states, veterinarians, feed manufacturers, feed suppliers, medical stores, equipment showrooms and also with the local well known farmers associated with poultry farming. He receives information from the Livestock Development Officer and the Poultry Extension Officer as he visits them once a month. He is in touch with the medical representatives of different pharmaceutical companies who provide him with information related to emerging drugs and other nutritional supplements.

In 2005, marketing birds was a big challenge. Sardar Janak Singh had to travel to the urban areas to meet the wholesalers of the region and tell them about his produce. Further, the marketing was done through common contacts. Many a times, he faced rejection from the wholesalers due to unavailability of the consumers on their part. During *Navratras*, (a Hindu festival) he had to keep his stock for many days, resulting in losses. Also, during peak summers, the demand for poultry meat declined, leading to monetary losses.

Presently, the situation is completely different, owing to his widespread contacts and also owing to improved communication technologies. He uses mobile technology extensively. He receives text messages from across the region and also from the Poultry Producers Association of the region about the trending prices of the meat, which helps him to compare prices at different locations. He also gets text messages from other states about price of the commodity thereby helping him to determine price of his product. The sale depends upon demand. He sells his birds to the place where demand is higher. The wholesalers of that particular place call him to send the birds to them as he supplies quality and healthy birds. Wholesalers themselves transport the stock. Sardar's marketing reach is so diverse that now he sells his stock to the retailers in Samba, Kathua, Udhampur, Reasi, Poonch, Rajouri and even Srinagar districts of the State. He also has contacts with a few hotels and restaurants, who purchase birds directly from him.

Sardar also takes into consideration the choice of the consumers. At times during festivity or marriage ceremony, he supplies the desired weight of birds. Some people have predilection for tender meat and some desire of more bulky meat, so accordingly, he fulfills the demand.

However, the business of poultry farming becomes cumbersome when there is huge mortality of chicks or when there are few birds left for sale. But still his linkages help him get rid of all the troubles and again rear a new batch. The business has strengthened him economically and provided him widespread social recognition.

Conclusion

Today, Sardar Janak Singh earns around 37,000/- to Rs. 41,000/- per month through his poultry farming and reaps about six broiler crops an year. Owing to his success, people interested in poultry farming come to him for advice. Many have started poultry farming too and succeeded.

The case of Sardar Janak Singh proves that the role of marketing plays an important role in succeeding in rural enterprises, like poultry farming. Strong rural urban linkages will not only help farmers stay back in villages pursuing such profitable enterprises, it will also improve access to quality produce by urban consumers.

Strong rural urban linkages will not only help farmers stay back in villages pursuing profitable enterprises, it will also improve access to quality produce by urban consumers

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Maina Thapa selling her products at Lekhnath Festival

From rarity to ubiquity

Entrepreneurship revives rare rice variety

Epsha Palikhey, Lakpa Sherpa and **Sajal Sthapit**

As families in urban and peri-urban regions in Pokhara leave farming, they also lose access to traditional varieties of rice from their own farms. In this context, establishing linkages between rural producers and urban consumers can be an effective way of preserving local food culture and extending the benefits of the expanding markets of the urban cities to the rural producers.

The value of traditional rice varieties are determined by various socioeconomic and cultural uses. Farmers manage a large number of cultivars for various reasons including food security, socio-cultural value, specific abiotic co-adaptive traits (such as being adapted to drought, poor soils) and economic or market value. *Anadi*, a sticky and glutinous rice, is one such variety grown in Rupa and Begnas lake watershed, a peri-urban area to the Pokhara valley in Kaski, Nepal, for its cultural and traditional use. *Anadi* is grown by many households but in small areas dotting the paddy landscape with patches of brown panicles.

Market linkage increases production

Maina Thapa is a subsistence farmer in the *Rupa* Lake Watershed. Sixteen years ago, she used to alternate her rice production among three major varieties; *Mansuli*, *Madhise*, and *Radha 7* as she owned limited *khet* land (irrigated paddy land), about 508.5 sq. meters. She did not produce *Anadi*

rice as her land was not suitable for *Anadi*, which requires irrigated or persistently waterlogged conditions.

Her foray into *Anadi* began with a role she was assigned to as a member of a local cooperative. The Pratigya Cooperative was formed in 1996 in Chaur of Kaski to collect, process and market local foods, providing saving and credit services to members and low interest loans to farmers. Maina Thapa was one of the 15 founding members of the Cooperative. Pratigya Cooperative in collaboration with LI-BIRD started working on promoting and marketing of *Anadi* in the watershed and Pokhara (nearest urban market from *Rupa* and *Begnas*) from 2001. Along with *Anadi*, they also worked on promotion of other local and value-added food products made from taro. The members of the cooperative divided work among themselves and Maina was responsible for collection, quality control, storage, processing and marketing of *Anadi*.

In 2001, Maina was able to collect only 12.2 kg of *Anadi* grains from the village and sold it unprocessed to a wholesaler (Sital Agro Products) in Pokhara for NPR 16 per kg (NPR 40 per *pathi*, a local unit equal to 2.4 kg of rice). Pratigya Cooperative spread the word of buying *Anadi* grains in the area. When farmers heard this and realized that *Anadi* can be sold, they increased their production. The demand from wholesalers in the market also increased. The price for *Anadi* grains went up to NPR 25 per kg (NPR 60 per *pathi*) in 2005 with the wholesaler covering the transportation costs.

Maina cultivated *Anadi* in about 0.5 hectares of the leased land and produced a little over 1.7 tons of grains. In addition, she also collected and aggregated *Anadi* from small producers in the village increasing her annual collections from 12.2 kg to 488 kg within 6 years. Maina says, *"Since we were linked to the market and started selling Anadi, we were motivated to produce more."*

The Cooperative initiative

Responding to the demand and higher value of milled *Anadi*, the cooperative and LI-BIRD invested in a rice mill in 2005 through the UNDP/SGP Community Biodiversity Registration project. In the same year, the cooperative leased-in about 4 hectares of *khet* land from the local Ananda Jyoti Secondary School for NPR 20,000 per year. They started cultivating and milling various rice varieties such as *Ekle*, *Anadi*, *Madhise* and *Chaite* as well. The mill was an important service to the local community, especially homemakers.

To maximize its profit, the cooperative decided to take their products to the market themselves cutting the role of the middlemen. In 2006, LI-BIRD with financial support from the Development Fund (Norway) supported to rent an outlet for the cooperative in Pokhara for marketing. LI-BIRD was to support full rental cost for the first six months, 75% for the next six months and 25% for the final six months, with the cooperative progressively covering greater share of the rent. However, this strategy was not successful. The shop never managed to turn in a profit and closed after mere nine months.

Benefits of Anadi rice variety

It is mainly consumed as Latte (rice cooked with ghee and sugar) during festivals. Other local recipes include Khatte (snack prepared by soaking de-husked rice in water and then roasting) and Siraula (snack prepared by soaking Anadi paddy followed by roasting and milling). It is also served when people are ill, especially when suffering from aches and sprains, although its medical properties have not yet been scientifically studied. In the past, cooked Anadi was also used to prepare casts for mending fractures when modern health care services were not readily accessible

Lack of business acumen and the carelessness of the members were the main reasons for the failure of the shop. Since the shop was owned by the cooperative rather than an individual, members did not have incentives to give the required time for operation and management of the shop. The shop was established to tap into the seemingly lucrative cut taken by middlemen. However, this bitter experience showed that middlemen play an important role of risk bearing in the value-chain, linking rural producers with urban retailers and also ensuring supply through out the year.

From a farmer to an entrepreneur

The rent for leased land of school kept on increasing each year and in 2007 it reached NPR 30,000. With yearly increase in land rent and the loss they were bearing, the cooperative decided to discontinue renting the land for rice production. Maina decided to lease the land herself and made the highest bid. Through her experience of six years in *Anadi*, Maina had gained knowledge, expanded her market networks and was confident to take this up herself.

Soon after taking the lead, she intensified her production to meet the increasing market demand. She invested in a tractor (as there was shortage of agricultural labor), pump set for irrigation, packaging machine, rice mill and support staff. Her husband, retired from the Army, also supported her to operate this as a family business.

She has utilized local fairs such as the annual Lekhnath *Mahotshab*, Pokhara *Mahotshab*, and the occasional organic fairs as one of the main venues to sell and promote her produce. LI-BIRD and its various donors and partners such

Maina Thapa in her farm

as Bioversity, IFAD and The Swiss Re Foundation have supported participation of farmers like Maina, and farmers' groups as well. She sells much of her milled *Anadi* rice as well as *Siraula* and *Chiura* (beaten rice) at these fairs and uses them to increase her business network.

Unlike other subsistence farmers, Maina's income is now enough to support her family including higher education of her children. Maina says that *"agriculture needs to be seen as a business and we smallholder farmers are entrepreneurs, regardless of the scale."* She encourages other women to be independent and take advantage of the agricultural land they hold.

Linking smallholders to the market

Maina plays a key role in rural and urban linkage for marketing traditional rice varieties. Usually, the volume of production of *Anadi* from individual farmer is low (about 2-12 kg). It is not easy for them to find retailers/wholesalers. Wholesalers also do not prefer collecting small quantities from individual farmers. On the other hand, farmers want to be paid in cash but retailers/wholesalers either pay by cheque/cash or take the goods on credit. There was a need for a middleman in the chain, which Maina has been playing to the benefit of the local smallholder farmers. Maina currently has a network with five wholesalers. She also supplies *Anadi* to other consumers directly in Kathmandu valley.

At its peak in 2009, Maina sold about 7.3 tons of *Anadi* grains (4.9 of her own production and 2.4 collected from other farmers), incorporating collection of *Anadi* into her own business. In 2014, she sold 2.9 tons of *Anadi* rice, 1/5th of it collected from farmers. She collects *Anadi* from 15-20 farmers every year from her village and nearby villages of Hansapur and Rupakot as well.

> Some level of organizing, aggregation and linkages with value-chain actors can create opportunities to smallholder farmers to benefit from local diversity.

While farmers continue to cultivate *Anadi* for their own consumption during festivals, many are no longer selling it to Maina. For the less resourced farmers, the cost of production is no longer attractive for the few kilograms they sell. Farmers report of declining productivity of *Anadi*, perhaps indicating a need for landrace enhancement through selection (Sthapit and Ramanatha Rao 2007). The milling recovery of *Anadi* is lower than other rice varieties at about 53%, its coarse straw is not preferred by livestock, which also decays faster compared to other straws making it unsuitable for alternative material uses as well. On the other hand, with a larger scale of production, the more resourceful farmers are essentially following in Maina's footsteps and are selling their *Anadi* directly to vendors in Pokhara and Kathmandu.

Anadi, the traditional rice veriety

Adapting to this changing landscape of competition, Maina has now diversified her portfolio of varieties. In addition to *Anadi*, she cultivates *Ekle* (for her own household consumption) and *Pokhareli Jethobudho*, both local varieties. *Pokhareli Jethobudho* is a prized aromatic long grain rice improved by LI-BIRD and farmers through the process of participatory varietal breeding and released through the national system. While the volume of *Anadi* sold by Maina has peaked, gone down and stabilized, she diversified her business by producing and selling 7.3 tons of *Pokhareli Jethobudho* in 2014, something unheard of for this variety in her village. Perhaps in another decade, she will have moved on to another enterprise.

Emerging lessons

When it comes to agricultural market development, the lure of identifying the best varieties or products, ramping up standardized production to scale and tapping the lucrative national and international markets is inspiring as well as tempting. However, the promise of such a great scope can only be realized through equally great investment in developing and managing the entire value-chain, something that is often beyond the capacity of many rural development organizations and programmes.

However, on the other hand, there lies a plethora of opportunities in terms of local crops and varieties that have localized and limited yet untapped market potential sustained by traditional culinary knowledge, rituals and nostalgia. The case of Maina Thapa shows that some level of organizing, aggregation and linkages with value-chain actors can create opportunities to smallholder farmers to benefit from local diversity. It also shows that one needs to diversify and change with the times as these varieties inherently have small markets and even a few additional competitors can eat into one's business. However, there are still plenty of alternative local varieties with untapped potential that enterprising farmers like Maina can carry over their experience and lead the way for others to follow.

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Learning lunch with nature

Sudhirendar Sharma

Working lunch is in vogue but 'learning lunch' is a novelty, connecting city-dwellers with food-producers with an aim to let each farmer-find-a-friend for renewing rural-urban relationships.

How do you get your wonderful lunch? Is it because you can afford it or because somebody had worked to produce it? Where do you think your food comes from, and where from it will continue to come in future? Far from intimidating, such questions attract hundreds of weekend tourists to *Saguna Baug,* the agro-tourism hub that is a little over two hours drive from the cosmopolitan Mumbai and the metropolitan Pune, located in Karjat taluk in the state of Maharashtra.

Ever since it shot into limelight almost two decades ago, the 50-acre farm has been getting a steady stream of an average 400 city-dwellers every weekend in the quest of understanding the multi-functionality of farming, combining leisure with learning. A team of over 60 youngsters, drawn from nearby villages, provide back-up services to the hordes of men, women and children who descent on the farm week after week.

Once known for the variety of captured snakes that attracted the first set of visitors to the farm, Chandrasekhar Bhadsavle has since then transformed the barren landscape into a learning laboratory. Over the years, it has emerged as a platform where leisure, learning and amusement merge to create a rural-urban interface. "*Saguna Baug combines the tangible (farm produce) with the intangible (rural environment) as a unique payment for environmental services model"*, explains Bhadsavle. From bird watching to water sports and from catching fish to learning farming, visitors not only learn the intricacies of food production but are also exposed to external pressures which demean farming as a vocation.

To reverse the continuing decline in agriculture, restoring farmers' confidence in farming and a turnaround in rural-urban migration is crucial. A visit to *Saguna Baug* works in two ways. While bringing visitors close to nature, the interactive discussions help the farmers earn appreciation

Photo:Author

Bullock-cart ride amidst greenery

Visitors learning to transplant rice

Photo:Author

Saguna Baug has demonstrated that methods and approaches for participatory learning and action can help re-connect farmers and citizens with the biodiversity that sustains their livelihoods and culture.

from unrelated quarters as well. '*Appreciation not only ignites confidence but restores dignity too,*' quips Bhadsavle. Restoring the dignity of farming as a vocation has been the key behind setting up the farm as an agro-tourism hub. *Saguna Baug* has been able to uplift the social status of farming, which in the recent past has taken a beating and is considered a lowly profession.

Saguna Baug has demonstrated that methods and approaches for participatory learning and action can help re-connect farmers and citizens with the biodiversity that sustains their livelihoods and culture. It further reflects that not only can sustainable agriculture practices be promoted by engaging farmers in extension activities; its economic value can be enhanced through eco-tourism as well. Agro-tourism share in total income at *Saguna Baug* is 40 per cent.

It is important for the farming community, who is staying in deep interiors of the country, to interact with their counter parts from the urban areas. Agro-tourism offers the best stage for this interaction and mutual happiness. Farmer's surplus capacity on the farm is used over the weekend, leaving a good time for farm development during the week. Thus farmer has a change in his routine hard work, something to look forward to over the weekend. By directly engaging with farmers, urban counterparts learn how food is produced and in turn re-shape their own eating habits. Their involvement ranges from direct purchase at the farm, to talking with farmers about what to produce and how, to providing inputs such as labour, knowledge or finance.

Photo:Author

Water sports hold special attraction

Having established its niche in agro-tourism, *Saguna Baug* is now moving to the next stage of its engagement with urban tourists. An innovative new concept 'Find Farmer Friend' (3F) has been launched, enthusing interested visitors to connect with farmers for building long-term trust and confidence in each other. It is a fresh start to building a new rural-urban relation, to see a reaffirmation of 'learning lunch' amongst urban dwellers and the peasants.

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For more details on Saguna Baug, visit www.sagunabaug.com

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Linking markets

Students show the way

Yogranjan and **Kamini Bisht**

In an unique initiative, students of agriculture in Tikamgarh played an important role in building linkages and thereby spreading organic farming. The linkage paved the way to move agriculture towards a healthy, environmental friendly and sustainable system.

The increasing demand for certified organic produce has created new opportunities for a section of farmers who are rich and can afford the costs of certification. These farmers constitute a very small percentage of total farm holders who aspire economic boom with the development of lucrative export markets. On the other hand, majority of small farm holders are still dependent on government incentives to meet the cost of input and are striving for a rational profit margin for their produce in indigenous market. Small farm holders in India are apprehensive in adopting organic farming practices. Owing to its export orientation, organic system of agriculture is not being considered as an opportunity for small scale farmers.

The unique initiative

The final year students of College of Agriculture, Tikamgarh, (M.P.), are placed in villages during the Rural Agriculture Work Experience (RAWE) programme. They are placed in the villages to have interactions with farmers, study different governmental schemes, and exchange their learning with farmers on advanced farming techniques and traditional knowledge. In 2013-14, around 44 boys were placed in different villages of Sagar district in Madhya Pradesh.

While students learnt from farmers, they also helped farmers in adopting organic farming practices, which they had learnt during their course of study. Students were also exposed to on- farm organic practices during practical sessions. In addition, they were also exposed to the on- farm trials (OFTs) and field level demonstrations (FLDs) of organic farming conducted by KVK, Sagar, under whose supervision the students were placed.

Photo:Author

Students help in organic manure preparation

Most of the farmers in the area possessed small and marginal land holdings with entire family engaged in farming. These farmers were producing only to meet their family needs. By default the farms were primarily non-chemical, as the farmers could not afford chemical inputs. The students took advantage of the existing situation and suggested to farmers to avoid chemical usage completely.

There exist a considerable population of non farming families in urban areas surrounding these villages within a radius of 10 kms. They are health savvy and aware of the ill effects of inorganic practices. They are the ones who can afford higher prices for healthy organic produce. The students saw an opportunity to build linkages among the farm producers and urban consumers. The idea of linking urban consumers with rural producers emerged out of informal interaction with urban people. On one hand, there were urban consumers having a need for organic food and on the other hand there were farmers who had switched to organic methods of cultivation.

The RAWE students interacted with both producers and consumers and made them aware that a linkage between them would be a win-win situation to both. The farmers got convinced for adopting organic farming practices seeking two advantages - reduced cost of cultivation and assured market for their produce. Earlier, they had hardly ventured into marketing.

The students kept a track record of the urban families who could be the potential buyers. To meet the ensuing demand,

Photo:Author

Farmers now know the importance of organic manure application

the group of students motivated the small farmers to adopt organic farming. The RAWE students extended their technical inputs for undertaking organic farming by these small farmers.

Although with small volume, the market for buying back the produce from small farmers was established. A buy back agreement was also documented and got legalized by these students. *A connecting link was felt to be in place in between urbanite's exclusive preference of buying organic produce and the obligatory practice of organic farming by small and marginal farmers*, says Lakhan Patidar, an agriculture graduate working on channelizing this linkage.

Results

In the crop year of 2013-14, a group of 44 urban, non-farming families and 25 small holding farmers were part of this linkage. A total of 310 quintals of wheat was bought by the urbanites at a price three times higher than the minimum support price during Rabi season of 2013-14. As most of buyer and/or consumers are equipped with transportation means, they themselves picked up the produce from the villages. Similarly, vegetables like okra, brinjal, tomato and cucurbitaceous vegetables are also being marketed.

Farmers of small to medium land holdings are finding it easier to grow crops without price risks. Assured market, higher income, migration check are the prime benefits. The establishment of linkage undoubtedly brought a change in the mindset of other farming communities, to adopt organic farming. Farmers with large land holdings are also joining hands to get involved. Dr. S.P.Singh, Course coordinator (RAWE) of College of Agriculture, Tikamgarh, finds this linkage to be very efficient in transforming agriculture. "*There is a need for a comprehensive framework that integrates organic farming with focus on local resources and innovation. This will surely help in generating large-scale farmers' acceptance to solve food crisis in the context of climate change and to address the health and livelihood security of large rural masses of India"*, says Singh.

> More than 300 quintals of wheat was bought by the urban consumers at a price three times higher than the minimum support price

The trend of purchasing organic produce has been scaling up including more number of people from nearby areas aspiring to be a part of the arrangement. People from the service sector and the business class, are enthusiastically coming forward to be a part of the linkage. "*We need not worry about the chemicals getting into our body system. Moreover, all organic food, now comes from our local area only"*, says Akhilesh Jain, a local businessman residing in Jesinagar.

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Farmily

A social media for farmer-consumer linkages

The rural penetration of internet and social media is increasing by the day in India. Interestingly, farmers too are using these services to get connected with agriculture experts and NGOs catering to their needs. 'Farmily' is one such start up portal and mobile App, which is using social media and interactive tools to link farmers and buyers, thereby creating an online marketplace for the farmers.

What does Social Media mean to you? How can it help farmers living in rural areas? Have you ever wondered how can urbanites get connected to the people living in rural India and produce food?

Social media is a platform- an application or website that enables users to create and share content in virtual communities and networks. It allows the user to connect to a larger audience.

Unlike urban users, people in rural India may not be as tech-savvy and many of the small and marginal farmers might not even have mobile phones. However, having said that, there are a lot of opportunities in the rural market and things are changing by the day. With unprecedented growth in mobile subscription in rural India, the use of social networking services Facebook, Instagram, Whatsapp are increasing. Many farmers are using these services to get connected with agriculture experts and NGOs catering to their needs.

According to the Internet and Mobile Association of India report 2014, there is a healthy growth in internet users driven by rural India. Rural India registered a growth rate of 39 percent to reach 101 million users by October 2014, whereas urban India grew by 29 percent to reach 177 million by October 2014.

Still, India has a number of challenges that hinders the penetration of internet and social media and one needs to think of the affordability and accessibility of these services.

Interestingly, here is one startup, Farmily, a portal and mobile App, which is using social media and interactive tools to link farmers and buyers, thereby creating an online marketplace for the farmers.

What is Farmily about? How does it work?

Farmily works to empower farmers by connecting farmers and buyers, farmers and other farmers, farmers and the ecosystem, through its mobile App and website. Through this interface, once the farmers are registered, they are given a digital presence through microsite, where he can showcase his farm, his capabilities and his produce.

It also allows buyers to put up a demand for produce on the platform. A mobile message will be delivered to the farmer, as soon as the buyer places an order or expresses interest in purchasing the farmer's produce. Farmers can respond to the demand and are able to negotiate online and conclude deals online. Farmers can also put up their produce for sale and entertain bids from buyers for price discovery. Once deal is done, Farmily activates the ecosystem to leverage the transaction like finance, logistics etc. All is done in the language the farmer is used to and on his mobile phone.

This will enable farmers to directly interact with the end customer and he can get better price for the produce. This process also reduces the food wastage in the supply chain, which is predominant today.

For example, as a buyer, A can place order for a particular commodity, say rice of 100 kg, with farmer X, who lives within a range of 100 kms, for a particular price. If the farmer X feels that the price quoted by A is reasonable, he can agree to supply or he can reject the order request as he may find another buyer who can pay him a better price.

Presently, Farmily is targeting only progressive farmers who are relatively tech-savvy and use mobile phones. However, it is spreading by word of mouth and already farmers' organisations are teaming up to take up big contractual orders.

"Farmily is redefining the way the world produces, distributes and consumes food. We are just asking farmers to produce to demand. In the present market system, a farmer produces X quantity of food crop and take it to market expecting a certain price for it. He will end up a loser, if he does not get a decent price. However, through Farmily, the farmer can get the order first, and accordingly grow-fruits/vegetable/crops, thereby reduce wastage in the supply chain process. Farmers will be able to negotiate a fair price,

delivery timelines and the terms of transaction" says Karthik Natarajan, Founder of Farmily Inc.

The question now is about logistics- Who will bear the transportation cost and how will it be delivered to customers? If the quantity is large, the farmer may deliver it to the buyers' doorstep. But, if the quantity is small, there needs to be outlet created at various points and the buyer might have to get the reach the farm.

Like how other products that are delivered through major E-commerce retailers like Flipkart and Amazon, Farmily is thinking on those lines to arrange logistics and cold storage facility to take the produce from seller to buyer.

Farmily already has about 10,000 downloads in a span of 10 months since its launch and the company claims that 80 percent of them are farmers. As of now, the farmers are not charged any commission for using the service. Also, it is not that the system will completely eliminate middlemen. Even if they are there, they might not be in a position to exploit, as the farmers know the market price and he can chose whom to sell the produce.

Through the App and website, the buyers can see the buyer based on the location and choose through an interactive map.

"This process is informative as the buyer can get to where the food they consume is coming from. Demand based production will enable to predict costs accurately and manage cash flows. Quality control becomes easy and can be integrated into the supply chain effectively. Wastage is minimised converting it to profits and enabling food security," says Natarajan.

Though this system, financing the value chain becomes easy to track and farm related micro finance and micro insurance schemes can be effectively deployed. Reach of farm inputs and services increases manifold. Access to agricultural information, knowledge delivery for modern farming techniques and deployment of best practices for sustainable and organic farming can be adopted quickly and efficiently.

Success story

Shastri, a 50-year-old farmer from Hosakote village, about 30 kms from Bangalore city, has been growing vegetable for the past 20 years. Until March this year, he used to sell his produce in vegetable markets in Bangalore. He says, he was exploited by middlemen and had to pay around 10% as commission towards the transportation cost.

Shastri grows around 40- 45 types of vegetables in organic way, Green lettuce, and Red lettuce, Celery leaves, Onions, cabbage, Iceberg lettuce, Red cabbage, cucumber, radish and more.

Shastri registered with Farmily in March this year, and has got orders from major retailers like Birla Group, M K retails and more. He says he now gets 5 times the price he used to get earlier.

With sudden splurge in demand, Shastri could not manage it alone. He now has mobilised around 200 farmers in and around in his village and supplies around 1-2 tonnes of vegetables to his customers.

There are several such farmers, who have registered with Farmily and are growing crops based on the needs of the requirement of the customers.

Quick and Easy Sign Up

Use your mobile phone number or your email address to create an account. If you are a farmer list your produce and location so buyers can find you. For more, logon to www.farmily.com or download Farmily App.

Interviewed by Mr Prabhu, a freelance journalist

Call for Articles

Making good use of scarce water

Vol. 17 No. 3, September 2015

Agriculture is the biggest water user, with irrigation accounting for 70% of global water withdrawals, and up to 90% in least developed countries. Modern agricultural practices have enhanced the dependence on groundwater, pushing the water tables further down.

Rainfed agriculture is still a predominant agriculture production system in the world contributing substantially to the food basket. How do farmers in these areas produce good harvests inspite of not having enough water to irrigate. What are the water conservation measures they use? Are the traditional water harvesting structures being used? If so how are they being managed? Are crop choices being made based on water footprints What changes do they make in agronomic practices. Do we have some more examples besides SRI, which could help farmers produce food with less water?

Water quality is yet another issue which affects agriculture as well as human wellbeing. What measures are being taken to address them? What is the role of policy in safeguarding the water resources, for its safe and efficient use in agriculture, human and animal consumption?

September issue of LEISA India will look at efficient ways of using water for agriculture. We invite you to share your experiences in efficient water management; rainwater harvesting; water efficient agronomic practices, strategies to increase the groundwater recharge capacity of the soil and innovative water governance systems etc.

Articles should be sent to the Editor at leisaindia@yahoo.co.in before 1st August 2015

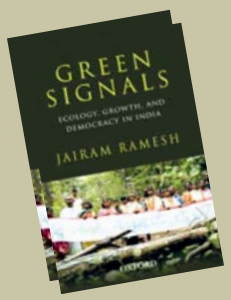
Community Seed Banks

Origins, Evolution and Prospects

Ronnie Vernooy, Pitambar Shrestha, Bhuwon Sthapit (Eds), 2015, Routledge, Series: Issues in Agricultural Biodiversity, 270 pages, Paperback**:** $53.95, 978-0-415-70806-7

Community seed banks first appeared towards the end of the 1980s, established with the support of international and national non-governmental organizations. This book is the first to provide a global review of their development and includes a wide range of case studies.

Countries that pioneered various types of community seed banks include Bangladesh, Brazil, Ethiopia, India, Nepal, Nicaragua, the Philippines and Zimbabwe. Surprisingly, despite 25 years of history and the rapid growth in number, organizational diversity and geographical coverage of community seed banks, recognition of their roles and contributions has remained scanty. The book reviews their history, evolution, experiences, successes and failures (and reasons why), challenges and prospects. It fills a significant gap in the literature on agricultural biodiversity and conservation, and their contribution to food sovereignty and security.



Green Signals: Ecology, Growth, and Democracy in India

Jairam Ramesh, *February 2015*, Oxford University Press India, 616 pages, Rs 850.00**,** ISBN: 9780199457526

The debate on whether to privilege economic growth over ecological security is passé. Environmental considerations must be at the heart of economic growth, especially for a country of 1.25 billion people destined to add another 400 million by the middle of the century. Green Signals chronicles the '1991 moment' in India's environmental decision-making, telling the story of how, for the first time, the doors of the environment ministry were opened to voices, hitherto unheard, into the policy-making process. It details efforts to change the way environment is viewed both by proponents of environmental security and those who prize economic growth at all costs. Told from the perspective of a pivotal decision maker, the book addresses the challenges involved in trying to ensure economic growth with ecological security. It takes us through India's coming of age in the global environmental and climate change community to take on a leadership role that is progressive, proactive, and steeped in national interest. Using speaking orders on high-profile projects, notes and letters to the Prime Minister, ministerial colleagues, chief ministers and others, Jairam Ramesh gives an insight into the debates, struggles, challenges, and obstacles to bringing environmental considerations into the mainstream of political and economic decision-making. This collection reveals the story of the author's attempt at the highest levels of governance to introduce effective decision-making, a transparent and accountable administration, and to make environmental concerns an essential component of a nation's quest to accelerate economic growth and end the scourge of poverty and deprivation.

Global Sustainable Development Report 2015

Climate Change and Sustainable Development: Assessing Progress of Regions and Countries

The Energy and Resources Institute, *February 2015*, Oxford University Press India, 376 Pages ISBN: 9780199459179

While scientific assessments of climate risks have made tremendous advances in the recent years, there is hardly any progress in mitigating the emissions of GHGs and adapting to the impacts of climate change, as agreed in the United Nations Framework Convention on Climate Change of 1992.

As part of TERI's newly launched annual research on global sustainable development, this study:

- makes an incisive analysis of the issues associated with climate change;
- identifies relevant indicators and sub-indicators on climate risks, mitigation, and adaptation;
- compiles available datasets on the indicators; and
- ranks the sovereign countries of the world on climate risks, historical and current responsibilities for climate change, and climate adaptive capacities.

Urban Agriculture

Findings from four city case studies

The World Bank, *July 2013*, Urban Development Series, No.18, Urban Development & Resilience Unit, The World Bank, Washington, DC.

Urban agriculture offers multiple benefits to cities and their residents. From an economic angle, urban agriculture provides employment opportunities, supplements household income, and generates monetary savings. It particularly enables the urban poor to better withstand rises in food and fuel prices. From a social point of view, urban agriculture can provide a sense of community, improve the lives of women and youth, and promote rural-urban linkages. The production and consumption of food enables improved nutrition for children. Urban agriculture contributes to the environment by providing ways to reuse wastewater and organic solid waste, reduce use of fertilizers and pesticides, and make cities more resilient to climate change.

The Urban Development and Resilience Unit of the World Bank is pleased to present this report showcasing four cities where urban agriculture is present. It provides an in-depth view of the impacts of urban agriculture on income and expenditure, food security and nutrition, and social impacts. It also provides an overview of the benefits of introducing and encouraging agricultural practices in urban areas to build cities that are green, inclusive, and sustainable.

Ecocultures

Blueprints for Sustainable Communities

Steffen Böhm, Zareen Pervez Bharucha, Jules Pretty (Eds), *2015*, Routledge, 296 pages, Paperback: $59.95 ISBN: 978-0-415-81285-6

The world faces a ‘perfect storm’ of social and ecological stresses, including climate change, habitat loss, resource degradation and social, economic and cultural change. In order to cope with these, communities are struggling to transition to sustainable ways of living that improve well-being and increase resilience. This book demonstrates how communities in both developed and developing countries are already taking action to maintain or build resilient and sustainable lifestyles. These communities, here designated as ‘Ecocultures’, are exemplars of the art and science of sustainable living. Though they form a diverse group, they organise themselves around several common organising principles including an ethic of care for nature, a respect for community, high ecological knowledge, and a desire to maintain and improve personal and social wellbeing.

Case studies from both developed and developing countries including Australia, Brazil, Finland, Greenland, India, Indonesia, South Africa, UK and USA, show how, based on these principles, communities have been able to increase social, ecological and personal wellbeing and resilience. Overall, the volume describes how ecocultures can provide the global community with important lessons for a wider transition to sustainability and will show how we can redefine our personal and collective futures around these principles.

Sustainable Futures: Imperatives for managing the social agenda

Bhaskar Chatterji, *2012*, Chennai, Notion Press, 383 p., ISBN: 978-93-82447-00-9.

The publication is well structured with short chapters to sustain interest. The publication presents lucidly and simply, the ‘concepts’ of CSR, their genesis, meaning and social relevance - backed by ‘practices’ illustrated through rich diversity of cases.

Importantly, the publication objectively highlights development perspectives with empathy and factual detail. It links these perspectives with relevant features of complex international treaties, agreements. It shows how governments, corporates and civil society organizations can synergize their efforts to build a whole new paradigm of development that is sustainable, humanistic and inclusive. With clarity of purpose, backed by research and ‘Further reading’ sections, can serve as a good resource for those trying to understand CSR and its relevance for a sustainable future.

Photo:Pia Kieninger

The head of the Oyamasenmaida Ownership System explains the procedure of rice planting to a group of students.

Threatened landscapes unite rural and urban communities in Japan

Pia Kieninger and **Marianne Penker**

In the past 50 years, about a quarter of Japan's cultivated land has been lost, threatening food production, cultural landscapes and biodiversity. One of Japan's most valued cultural landscapes includes rice terraces. In order to prevent them from abandonment, an innovative concept known as the Ownership System, was devised almost 25 years ago. This has today become a national movement based on the cooperation between rural and urban communities who combine food production with landscape conservation, cultural activities and environmental education.

Japan is one of the most urbanised countries in the world where rural communities are rapidly shrinking and aging. About three quarters of nation's population live in cities, each located in the few flat areas of this otherwise mountainous country. Japan is the 'oldest' country worldwide, with 25% of the population being 65 or older, and the average farmer is close to 70 years old. The problem of shrinking and aging rural populations across the country led to the creation of the term, *genkai shûraku*, literally translated as 'communities on the edge of existence'.

As rural communities grow ever smaller, land is abandoned, infrastructure is lost, and traditional Japanese cultural landscapes known as *satoyama*, degrade. In the national biodiversity strategy, the "lack of human influence" in

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satoyama is highlighted as one of the top three biodiversity crises and the role of civil society to protect landscapes is emphasised. Rice terraces (*tanada*) are particularly important in *satoyama*, yet about 40% of the country's rice terraces are abandoned. Apart from food production, they are hotspots of biodiversity and cultural identity. Many people perceive them as the landscape most close to them and they feel attracted to them due to their high cultural and aesthetic value. *Tanada* are landscapes of their ancestors, culture, tradition, (spiritual) homeland and important places for national identity.

The Ownership System

Civic movements to save *satoyama* started in the 1980s, firstly by mainly supporting forestry, as cultivation of agricultural land was restricted by law to farmers only. But to support civic engagement on farmland, the government suspended these restrictions in a number of special districts.

The first Tanada Ownership System started in Yusuhara on Shikoku island in 1992. The Ownership System later became a national movement, where mainly city dwellers, called 'owners', rent agricultural land in order to cultivate it under the well-organised support of local farmers and other experts. Among all the different types of Ownership Systems, those focusing on rice production are most popular. In 2008, 187 Tanada Ownership Systems were officially registered across Japan, but the actual number might be even higher. The foundation of many Tanada Ownership Systems coincided with the Agricultural Ministry's award for the top 100 terraced paddy fields of Japan that highlights outstanding scenic beauty and sustainable use. This award brought publicity and visitors to the rice terraces, but it also raised local pride and encouraged them to engage in conservation activities.

Tanada Ownership Systems all over Japan share the same principles, but organisation, size and participation fees differ. In the area of Kamogawa City, close to greater Tôkyô, there are at least seven Ownership Systems. One of these, the Ôyamasenmaida Tanada Ownership System in Chiba Prefecture, is commonly regarded as a best practice example. The experiences of locals and city dwellers participating in this system are presented here.

Ôyamasenmaida

Ôyamasenmaida is a mountainous rice terrace landscape around 100 km south-east of Tôkyô. Over 400 terraces, ranging in size from 20 to 900 square metres, extend up a south-east slope. They belong to the hamlet of Kogane, numbering less than 20 households. With an aging population, this region lacks farm successors, owing in part to the uneconomically small scale of the paddy fields. In 1997, landowners and other locals founded the NPO 'Ôyamasenmaida Preservation Association' and initiated a Tanada Ownership System to safeguard their rice terraces. The founders saw the Ownership System as a win-win for the region. The director explained, *"the ownership system is the right way because the small paddy fields are big enough for city dwellers and the old farmers possess a lot of knowledge to offer the city people."* In 2000, the Ownership System started with 39 terraces, and membership expanded quickly to include 453 owners with 415 plots, or more than 1000 participants including their families and friends in 2006.

Six different programmes are offered. Two are for growing rice (for individuals with families and friends, or for groups sharing common paddy fields), one is for growing rice and brewing rice wine, one is for cultivating soybeans, and one for growing cotton, producing textiles and dying them with indigo. The sixth, a programme for reconstructing old houses was also recently introduced. Participation fees for the city dwellers range from the equivalent of around US$30 to US$300, depending on the type of programme and field size, with 10% of the fees going to the landowners and the rest to the association.

The owners' farming activities are strictly scheduled within seven collective working days during the year: rice planting in April/May, weeding in June, July and August, harvesting and threshing in September, and the harvest festival in October. Each day starts with an attendance check and a welcome speech to explain the procedures. Ôyamasenmaida Preservation Association members and local volunteers act as instructors, while during the rest of the season, the association takes care of the other tasks. Besides these scheduled activities, exchange and communication among the owners, farmers and local people is equally important. Working days typically include shared lunches or dinners, dancing (the Ôyamasenmaida dance), and karaoke parties. This helps to establish and deepen friendships between participants. Moreover, several side activities are offered such as courses on preparing traditional dishes and handcrafts, nature education programmes, hiking tours, traditional dances, concerts and theatre, and even volleyball tournaments in the paddy fields before rice planting. The association even built the tanada club house financed by the Kamogawa City, to encourage more rural-urban exchange. *"Many people meet farmers at the tanada club and become personal friends. I guess this is also an aim of the club,"* says one of the owners who developed a lasting friendship with the landowner of his rented paddy field and spends the nights before working days in the landowner's house.

Why participate?

The motivations driving the participation of the local landowners and population include landscape conservation, revival of rural areas, exchange with the urban population, and attracting urban people back to the countryside in the long run. It remains to be seen whether many of Japan's urban majority will be motivated to move to the country and take up farming as a profession or help to rebuild rural communities. At the moment, urban participants who travel up to 150 km to reach the land, are mostly motivated by their love for the rice terraces which they wish to preserve. They also look for recreation, the joy of manual work in the open air, and to be close to nature. Most of them had no connection with farming before taking part, and they want to learn more about agriculture and Japanese culture. Many parents see the educational value of involving their children. *"Tanada can only be cultivated by hand. It is important to protect the heritage of our ancestors and the cultural landscape. I bring my children and grandchildren to learn to work with their hands. It is very important that children see that manual labour is exhausting."*

Photo:Pia Kieninger

Owners manually harvest the rice and prepare it for drying

The relevance of the Ownership System for food production is marginal, as the terrace areas and the amount of rice harvested by individuals is quite small, and from a strictly economic point of view, rice in supermarkets is much cheaper. However, the 'non-economic' values gained during the production process and from the self-produced rice, rice wine, tofu and soybeans far outweigh the lower prices from supermarkets. Furthermore, since the Fukushima nuclear disaster in 2011, the director of the association reported an increased interest in food safety and an even higher interest in participation by young people and families.

The rest of the world

Although the Japanese experience is unique in terms of its socio-economic and demographic transformation processes, similarities can be found in initiatives around the world. For example, a similar system called 'rent a grapevine' started in 2002 in vineyards in Purbach and Retz, Austria. Volunteers learn to appreciate farming and the landscape, and are rewarded with their own wine. As in Japan, participants work for five or six days each year. The initiative was initiated by the tourism association to promote the municipality and support local farmers with additional income. Whereas the Japanese Tanada Ownership System helps to safeguard rice terraces threatened by abandonment, in Purbach, vineyards have been newly created for the purpose of the renting programme, and in Retz, farmers take turns in providing land. Similar to Japan, participants are mostly high educated city dwellers, but with a passion for wine.

Protecting landscapes and accompanying all the steps of food production seem to be important motivators for urban participants. The rural-urban cooperation seen in Japan not only satisfies urban participants, but can be highly beneficial for the conservation of cultural landscapes and biodiversity. And, last but not least, the work of local farmers is more highly valued, and they are better able to share their knowledge, experience and skills, and contribute more to the cultivation of their land.

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