

# FARMING MATTERS



## Reclaiming nutrition

- Linking family nutrition in city and country
- Finding a way out of the maize

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# Nutrition from diversity

**M**y name is Laxmi Acharya. With help from my husband and children, I manage a small family farm in Belepur, in the Koshi-Harincha municipality of Morang district, Nepal. Our farm is often mistaken for a miniature botanical garden, which is no surprise given the diversity of plants and animals found there. We needed more food for the family, but we had only a small parcel of land. So we chose diversity.

Our farm covers only 2000 square metres, and well managed diversity is the key to its productivity. Six hundred square metres are occupied by the house, fruits and vegetables. I keep a pair of cows, a pair of goats, 10 pairs of pigeons and 10 chickens. I also have a fish pond with about one hundred mungri catfish. On the remainder of our land, we grow scented Basmati rice using the agroecological System of Rice Intensification.

We get the most nutritional value from crop rotations and from the complementarities between our plants and animals. For example, during the rainy season we grow rice, and after harvesting, we plant potato, mixed with mustard for cooking oil, and lentils and other vegetables for extra food and income. In spring, we plant maize which is used for home consumption as well as for animal feed. Our cows, goats and poultry, in turn, provide the manure that has improved and maintains the structure and fertility of the soil. I am proud to produce enough to fill the plates of my family with all the necessary cereals, vegetables, fruits and animal protein for an adequate and balanced diet, and even be able to sell our surplus on the market.

Interview by **Raj Uprety**, student at Tribhuvan University and **Rajendra Uprety**, senior agricultural development officer in Morang district, Nepal.



### Linking family nutrition in city and country

# 8

Narrowing the social distance between processes of production and consumption helps families consume healthy, diversified diets wherever they live and whatever they do. In Ecuador, a growing movement of urban families interested in buying fresh vegetables directly from farmers has succeeded in nurturing a growing link between rural and urban families, allowing both to maintain and even increase the diversity in their diets.



### Nutrition from innovation and taste from waste

# 12

Traditional farming practices lose their importance when they are perceived as old fashioned. But rural communities in Nepal are going against this trend and have begun to revive and renew their home gardens. Women have taken the lead, and the benefits go beyond cultivating fruits, vegetables and herbs. They are developing skills and knowledge, linking farm products to markets as well as increasing their participation and influence in local affairs.



### Finding a way out of the maize

# 16

Improving nutrition and building resilience are inextricably linked. And diversifying crops, food and diets is a case in point. Recurrent drought encouraged farmers in eastern Kenya to develop their own way to secure enough nutritious food. Before, there was maize and more maize. Now they are growing cassava and have returned to sorghum, millet and cowpea. The benefits are more nutritional value in the home and on the market, increased incomes, and better risk management.



### Guinea pigs – small livestock with big potential

# 20

Guinea pig meat is high in protein and low in fat, and the little animals show great potential in improving the nutrition and livelihoods not only of farmers, but also people in towns and cities who are crying out for cheap, quality protein. Breeding, consuming and selling guinea pig meat has opened doors to improved nutrition for many families in Bolivia. The resurgence of guinea pig meat production and consumption holds promise in and beyond the Andean region.

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## Rural-urban linkages

When directly engaging with farmers, citizens play an active role in shaping the way their food is produced. Involvement ranges from direct purchase via farm shops and box schemes, to talking with farmers about what to produce and how, to providing inputs such as labour, seeds, knowledge or finance. Many such initiatives are driven by young people. Some are institutionalised, as in public purchasing programmes or food policy councils. Chefs also play a role in strengthening these linkages as they seek fresh, local produce.

As a result, new agroecological practices have developed and the nutrient cycles are closing, leading to healthier farming systems and fewer food miles. Food cultures are developing around territoriality, seasonality, freshness and fair prices.

These emerging ideas are even challenging architects and city planners to rethink the design of sewerage and recycling systems, under the concept of ‘urban-rural metabolism’.

This trend goes against what many academics and politicians say are the effects of the industrialisation and globalisation of agrifood systems. They believe that rural societies will disappear, both in demographic and cultural terms, and family farmers will either move out of agriculture, or operate only as large enterprises. In this view, family farming is not seen as a social, cultural and political category in its own right, as a way of life, but merely as a professional sector that must be integrated into agri-business chains. But these prophecies remain unconfirmed. Although rural-urban relations have radically altered, what we are seeing is a reaffirmation of ways of living that are typical of the countryside and the peasantry. These local responses to globalisation are based on principles of agroecology and multifunctionality, rather than the logic of business and finance. They show that family farmers remain a determining force in the 21st century, forging promising pathways together with citizens to tackle the food, environmental and climate crises.

Issue 31.2 of *Farming Matters* will focus on relations between the rural and urban worlds. We are looking for stories on groundbreaking initiatives on how family farmers and citizens collaborate. How do family farmers respond to changing urban consumption patterns? How is knowledge about food and farming co-created between rural and urban communities? What is the role of youth and of women? Are there examples of successful marketing strategies to promote food from family farms in the cities? What difficulties were faced and what responses were found? We look forward to your insightful stories and practical evidence.

Articles for the June 2015 issue of *Farming Matters* should be sent to the editors before 1 March 2015. Email: [info@farmingmatters.org](mailto:info@farmingmatters.org)

# Farming for nutrition: back to the future

Nutrition has become one of the buzz words of the year, like resilience, and landscapes. What they have in common is that they refer to complex situations with political forces competing over the backs of rural and urban communities. The nutrition challenge is clear – with a billion hungry people on this planet and another two billion overweight – it is time to act. Persistent hunger and undernutrition are inexcusable in a world of plenty. But the crucial question is: who should act and how?

Edith van Walsum

In this issue we explore the global and local context of today's efforts to address hunger and malnutrition. And we take a fresh look at how family farmers and consumers take the initiative in their hands, regenerating food cultures, revitalising and rejuvenating mixed farming systems, and using political spaces to call for a different, rights-based approach to food and nutrition. We see in these stories from our readers, the trend of reversing monocultures and towards multifunctional, climate resilient agroecological systems. Driven by nutrition and economic concerns, family farmers are diversifying their crops and seeking local markets which gives both rural and urban communities a better variety of food on their plates. A clear example is the experience in Kenya (page 16). Yields and on-farm biodiversity increase, as does resilience against climate shocks and price volatility, and more diversification of employment and income .

**Global forces** Initiatives to combat hunger and malnutrition are not new phenomena. Decades ago there were nutrition education programmes, school feeding programmes, kitchen garden initiatives, with some of them well-integrated into agricultural and rural development and social movements. The

second International Conference on Nutrition has just ended, while the first one took place 22 years ago... But today, hunger and malnutrition persist.

What has changed drastically are the power dynamics underlying global efforts to address hunger, with the corporate sector gaining ever more control over essential resources such as land, water and seeds.

Photo: Sara Quinn



## Diversity from field to plate

As explored in *Cultivating diversity* (*Farming Matters* 30.1, March 2014), there is a strong link between agrobiodiversity, varied diets and balanced nutrition. Though the link appears obvious between the variety of food produced, that harvested, and better nutrition, it merits further research. Several articles in this issue show inspiring examples of local champions, such as traditional chiefs in northern Ghana (page 26), and a gastronomic expert in Peru (page 30). All are part of a growing movement that promotes the use of local diversity, and connects urban and rural communities, as seen in Ecuador (page 8). Essential in this new relationship are the short distances from field to plate, which also contributes to better nutrition.

## Women: drivers of change for better nutrition

It cannot be emphasised enough: women are the strongest drivers of better nutrition. It is they who most directly link production to consumption. They take most of the key decisions on what to grow or raise and how. They are responsible for cooking and processing food, for sharing it in the family, and especially for feeding the children whose adequate nutrition is crucial for their future. They decide what to take to the market and what to keep for consumption at home. They teach their children about what to eat and how to cook, and so on. A study by IFPRI found that improving women's education explained 45% of the gains in food security, compared with increased food availability (26%) and health advances (19%). Safeguarding women's rights, including to land and other natural resources is crucial, as is recognising the essential knowledge women hold on seeds, food preparation and nutrition. A couple of articles in this issue, one on breeding guinea pigs in Bolivia (page 20) and another on renewing home gardens in Nepal (page 12), show how women are connecting production with consumption in their homes.

## Nutrition sensitive strategies

Farmers must be central in strategies to improve food and nutrition security. We need to transform food and nutrition systems, and not continue with the mistaken assumption that modern industrial agriculture can 'feed the world' and fix nutritional deficiencies with food fortification and genetic modification. The story of 'Golden rice' is a good example, a genetically engineered variety developed by industry to combat vitamin A deficiency. But it has been shown that Golden rice may pose risks to human and ecological health, and could compromise food, nutrition and financial security of rural communities. This type of single-crop approach does not address underlying



Photo: Martina Thaler

causes of malnutrition and could make (hidden) malnutrition worse as it encourages rice-based diets rather than increasing access to a more diverse range of fruits and vegetables.

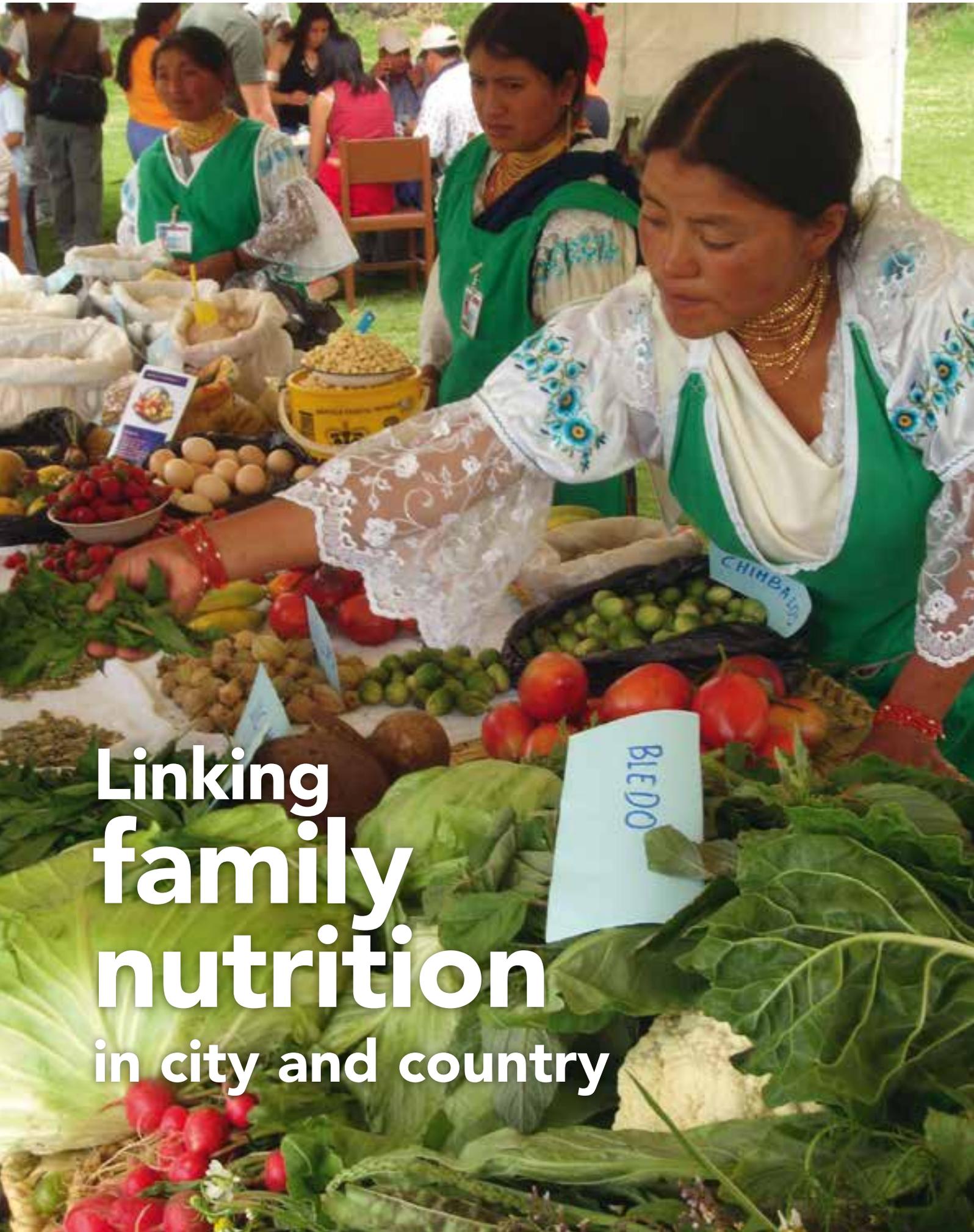
Ample evidence, some of it in this issue of *Farming Matters*, shows that it is far easier and more cost effective to achieve nutritious diets with local food systems and short value chains. Accelerating progress towards the eradication of hunger is less about new technologies and more about putting what is already known into practice, and providing people with the right to their resources. Success will hinge on basing all policies, programmes and action plans on evidence and proposals from the urban and rural grassroots, and on defining them within a human rights-based framework.

The millions of dollars spent by the corporate and research worlds on expensive genetically modified 'nutrition sensitive' crops would be better spent on empowering family farmers to further develop solutions that are already available and working, such as diverse, agroecological farming practices. At the recent International Nutrition Conference, civil society rightly emphasised the point that 'nutrition can only be addressed in the context of vibrant and flourishing local food systems that are deeply ecologically rooted, environmentally sound and culturally and socially appropriate'. As this issue of *Farming Matters* demonstrates, there are many ways to develop such sustainable food systems that provide long-lasting food and nutrition security.

In this last issue of 2014, let the message be clear: with family farmers at the centre, and women especially, the world can be nourished, sustainably and justly.

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Linking  
**family  
nutrition**  
in city and country

Ecuador is going through a substantial nutritional transition. This, coupled with the paradox that rural families that produce food are often those most affected by undernutrition, shows the ironies of 'modern' food systems. It also highlights the importance of rural-urban linkages around family nutrition which can help to address such contradictions. This is what we see among families living in two rural villages, San Francisco Alto and Ambuqui, in the north of Ecuador, who through various strategies have managed to achieve healthy, diversified and nutritious diets.

Myriam Paredes and Carla Guerrón Montero

**I**n one of our first visits to Marcia and Marcelo's family in San Francisco Alto more than ten years ago, lunch comprised of a large bowl of boiled unpeeled potatoes with a hard boiled egg, a pasta soup with a little bit of milk, and a glass of lemonade. In 2011, we ate kale soup with carrot, turnips and *oca* (an Andean tuber) rice with egg, tortilla with green vegetables, a cup of barley with milk, and boiled potatoes as a side dish. How their diet had become more diverse in a single decade!

**Traditional to 'modern'** But how did they get to such an undiversified diet in the first place? As with many farmers in the area starting in the 1980s, Marcelo's family obtained some farm land following land reform. This change meant the family needed cash to pay for the necessary farming inputs and other emerging needs. Consequently, the family moved away from their traditional diversified production of Andean crops, including about a hundred species of tubers, vegetables and highly nutritious grains such as quinoa and *chocho* (the South American lupin, *Lupinus mutabilis*). Instead, they turned most of their land to growing a single, highly marketable variety of potato, superchola, with a shorter production cycle than most traditional Andean crops.

In the 1990s, there were large variations in potato prices. This was accompanied by decreasing yields due to soil degradation that in turn resulted from heavy mechanized tillage, and increased pest and disease attacks tied to monocropping. Over time, Marcelo's family fell into debt. Yet, potatoes continued to be an important part of the culture and the main source of food for the family as well as of their income from sales to the local wholesale market.

**Links to the city** Through friends in the capital city, Quito, Marcelo learned about a group of urban families who were buying fresh vegetables directly from farmers. This group was part of the El Carmen ('community food baskets') movement, known in Spanish as the *canastas comunitarias* or *canastas*. Started in the 1980s, the *canastas* had become active in every major city in Ecuador. The *canastas* purchase food in bulk to decrease costs, and recently became interested in buying directly from farmers to allow them to realise more benefits from their farming activities.

**Food baskets linking farmers to urban consumers.**  
Photo: Myriam Paredes.





Traditional varieties of potato are back on the menu again, each with their own distinctive taste.

Photo: EkoRural

Marcelo contacted Anita, the coordinator of the El Carmen group, about the possibility to sell his family's 'clean' pesticide-free potato. Anita invited Marcelo to visit the group and take part in its weekly collective purchase. Upon his return, Marcelo told us, "This was the first time I felt the handshake of the people who ate my potatoes!" But Marcelo did not know at the time about all of the changes that such direct sale would demand. Meanwhile, Anita said: "We decided to find direct producers like Marcelo, but when we asked for a variety of food crops, they only could provide us with one or two at the most."

**Increasing the variety** Motivated by these requests for diversity from the *canasta* group, Marcelo went back to his father's practices of planting a mixed variety of potatoes in the same plot. And like his grandfather, Marcelo started to grow once again other traditional tuber crops such as *mashua*, *melloco* and *oca*. And together with Marcia, they started a pesticide-free vegetable garden. Marcia said, "When the *canasta* group requested more products, we only had potatoes, and we realised that it was a shame for us to buy food that our family used to produce in our own land."

Regarding the new varieties of products in the *canasta* group, Anita has this to say: "At first we were not accustomed to eating all the different vegetables that we received every week in the basket. For instance, we mainly used to eat *chola* potato while Marcelo brought us *capira*, *violeta*, *ratona* and other varieties we had never heard about and which tasted differently. We also had to get used to different kinds of leaves; and we had cooking lessons with nutrition-

ists and elders to learn how to cook with these varieties and to rescue traditional recipes."

**Esperanza and Renato** The importance of building relationships between producer and consumer step by step is also illustrated with the story of Renato and Esperanza. Renato has been a farmer all his life in Ambuquí, in the neighbourhood of San Clemente, Imbabura. He married Esperanza, a woman from the community, who had worked in Ecuador's capital as domestic worker for many years. When she returned to San Clemente and married Renato, she had to learn all over again about her husband's deep connections with the land. With time, she managed to do so, but never lost the desire to explore other options beyond farming, for herself and her family.

With her business skills and ability to interact with sophisticated consumers from larger urban areas, Esperanza focused on diversifying the family income. In addition to working the land with agroecological methods and minimal use of pesticides, she was selected to represent a food cooperative in agroecological fairs. She also began to run the cooperative shop in the city of Ambuquí. When Esperanza and Renato had children they needed extra income, and Esperanza rode a horse up the mountain to the town of Peñaherrera to sell their farm produce along with other items.

After the children left home, the situation changed again. Esperanza became 'the person to go to' when the occasional Peace Corps volunteer, intern, or researcher needed a temporary place to stay. Now, when they have produce to sell, which includes a variety of

legumes, fruits, grains and vegetables, Esperanza visits her regular clients down in Ambuquí, house by house. Occasionally, buyers will knock on their door to buy produce directly. They have fixed clients with special requests who, unlike most people in Ambuquí Esperanza says “do not eat vegetables, only French fries or boiled potatoes, rice and fried eggs. They say they are not rabbits or guinea pigs so will not eat grass.” Renato and Esperanza, however, consume a very varied and nutritious diet, which includes the common staples of potatoes, rice, and eggs, but also includes a variety of green vegetables, legumes, grains, tubers, and fruits. Esperanza is greatly concerned with being able to provide to her customers the nutrients that she presumes will not be available in other homes in San Clemente.

When summer comes and production dwindles, Esperanza sells cosmetic products to clients in distant villages and cities. Her children are now university graduates with professional jobs, and while they do not expect to become farmers, they do find ways to remain connected to their parents and to their land. One daughter studies in the United States and sends and brings seeds that Esperanza grows in her farm with special care. Two of Esperanza’s sisters live in Spain and return to Ecuador with amusing stories about

Photos: EkoRural



A more varied diet is ensured with mixed baskets.

Photo: EkoRural

their lives in Europe, but still crave the local speciality of roasted guinea pig with potatoes for lunch.

These are some of the urban-rural linkages that allow this couple to continue farming the land in spite of droughts, no subsidies or support from the local government for production, and a system that seems to be focussed on guaranteeing economic successes to middlemen and other market intermediaries.

**The importance of direct connections** The rural population in the areas where these two families live is enduring social and economic pressure to reduce crop diversity, and consequently suffers a loss in the knowledge and ability to consume a diversified diet. Yet, by linking rural and urban families, various families maintained or even increased diversity in their diets in rural as well as in urban areas. This usually happened through direct interactions between farmers and urban dwellers or through recipes passed down via secondary means. And in particular, through direct linkages between producers’ and consumers’ organisations that learned to value diversity and long-established foods.

Although a high diversity of production does not necessarily translate into high levels of dietary diversity or better nutrition, consumers’ and producers’ organisations can play a pivotal role in providing experiential opportunities that help to increase on-farm biodiversity, while also strengthening the knowledge inherent in such processes and systems. The nutritional effects also seem very clear. Yet, more such relationships are needed for such constructive rural-urban linkages to become commonplace.

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*This story builds on two previous articles: ‘Local food systems’ (Farming Matters, 29.2: 38-40) and ‘Building an urban-rural platform’ (LEISA Magazine, 24.3: 22-24).*



# Nutrition

from innovation,  
and **taste**  
from waste

From a situation of widespread undernutrition, consuming fresh vegetables all year round has now become a reality for many Nepali households thanks to their expanding home gardens. But the stories they tell show that the benefits of home gardens are not limited to improving household nutrition. The gardens also help to empower women and conserve biodiversity, two much needed conditions for better family and community nutrition on a broader scale.

Roshan Mehta, Roshan Pudasaini and Jacob Zucker

**T**he World Health Organization reports that in Nepal, 39% of under-five's are underweight and 48% have anemia. The country's primary nutritional issues were identified as chronic energy deficiency in mothers, low infant birth weights, widespread childhood malnutrition, and deficiencies in Vitamin A, iron and iodine. Inadequate micronutrients are especially common in remote rural communities where dietary diversity is limited, and is a particular problem with women and children. Lack of nutritional education and resources for maintaining long term food and nutritional security contribute to these problems.

**Home gardens** Despite these serious problems, some rural communities have started to improve their food and nutritional security through investing in more genetically diverse home gardens. Various programmes are supporting this move, including a large project implemented by LI-BIRD over the past 12 years, a national NGO supported by the Swiss Agency for Development and Cooperation and Bioersity International.

Home gardens used to be a cornerstone of traditional Nepalese farming systems, but over time, they have slowly begun to lose their importance in people's eyes as a relic of old-fashioned customs. But now, their importance is being recognised once again. A home garden is the area around a homestead where traditional and improved varieties of vegetables, fruits, fodder, herbs, spices, mushrooms and ornamental plants are grown, along with livestock, fish and bees. Production from home gardens is primarily intended for family consumption though many farmers may also produce a surplus for sale.

Nutritional calendars were developed with local people that showed the monthly gaps in nutrition for each community. Farmers were supported with the provision of vegetable seeds and fruit saplings. They also received training on human nutrition, and on low cost sustainable home garden management techniques. The introduction and integration of goats, pigs, poultry, mushrooms, fish and bees was also promoted, to complement family nutrition and household income as well as providing agroecological benefits to the farming system as a whole.

How home gardens were developed was decided by farmer groups within each community. These groups are village level institutions with a defined legal status that also abide by national rules and regulations. In each home garden group, the inclusion and participation of marginalised groups based on ethnicity, gender or poverty, allowed more equitable access to the opportunities and benefits. The garden groups received support not only in specific techniques, but also in

organising themselves, thus preparing them long for continuation of project activities. The farmer groups built knowledge and skills on governance, accounting and finance, and building relations with service providers. They also implemented a savings and credit programme that allows them to overcome unforeseen financial problems.

**Cultivating diversity** The tiny home garden of Surya and Saraswati Adhikari is flourishing. Situated directly in front of their house in Begnas village, Kaski district, just a few steps from the kitchen and storage areas, more than two-dozen different plants can be found in their eight square metre plot. Papaya and banana trees stand tall. Below grow many local vegetable varieties, and climbing beans vines wrap themselves around edible bamboo stalks. Other medicinal, cultural, and decorative plants such as *tulsi*, *barbari*, and *til*, help the family and the community as a whole to preserve traditional knowledge and practices otherwise at risk of being forgotten.

Chemical contamination and poisoning from unregulated use of industrial pesticides by untrained farmers is a widespread problem. But Surya and Saraswati use no insecticides, herbicides or fertilizers in their garden, preferring mulches and compost to enrich the soil and natural fertilizers to promote plant growth.

Still, many farmers with home gardens struggle to maintain vegetable production during the dry season, especially in hilly areas where the availability of water is limited. To overcome this, farmers began collecting waste water in small tanks and using this to irrigate their gardens. Mr Lok Bahadur explains, "I have constructed a water tank of nearly 500 litres in my garden

#### Grinding spices for the day's cooking.

Photo: Jacob Zucker



and I can now grow vegetables even in the dry summer.” This result has been aptly described as producing ‘taste from waste’.

**Women and nutrition** Women know the importance of home gardens for family nutrition very well as they typically take responsibility for both. With respect to which fruits and vegetables to grow, food preparation and feeding the family, women make critical decisions that have lasting impacts on the lives of their children and other family members. A proper understanding of the relationship between the plants grown in the family garden and the nutritional makeup of meals prepared in the kitchen is indispensable for addressing the issue of malnutrition.

Saraswati Adhikari is responsible for the family’s cooking, and is fully aware that creating a proper nutritional balance in each and every dish is a delicate task of the utmost importance. Most rural families only eat two main meals a day, with white rice as the staple carbohydrate source. *Daal* is a typical Nepali dish prepared from lentils or beans, both of which are an important source of dietary iron and protein for rural communities. On days when it is not served, she prepares a stew of taro leaves or mustard greens that supplements the iron intake. Taro leaves are also a rich source of vitamins A and C, and when consumed with vegetable sources of iron and protein, significantly increase their absorption by the body. In the summer, ripe cucumber is sprinkled with iodized salt as a cooling afternoon snack, helping the family to avoid the range of disorders associated with iodine deficiency.

Saraswati carefully crafts each family meal with a wide range of fresh fruits and vegetables from her home garden. And the health benefits of such a nutritious diet are being felt. Now able to consume fresh vegetables all year round, Lok Bahadur explains, “I feel in good health compared to before. Previously I had to travel to Kathmandu up to four times a year for medical treatment, but not any more.”

**Beyond self-sufficiency** Home gardens have also added to household incomes and the nutrition of others, with surplus produce sold for cash in local markets. Home gardens have also proven to be useful ‘testing grounds’ for some farmers, where they have experimented with new plants and practices, learnt, adapted, and then scaled up the successes on their fields. After learning from their home gardening experiences, others have increased production to such an extent that for the first time, they have excess to sell.

Mrs Champa Chaudhary is from the indigenous Tharu community in western Nepal. Not long ago she had limited access to resources and used to have practically no say in household decisions despite her responsibilities for cooking and household tasks. Wage-labour was the only source of income, and the food that she could grow was never sufficient to support her family for more than four months in any year. Champa has since improved her gardening skills, increased and diversified her production portfolio, and last year she was able to earn 5000 Nepalese Rupees (around US\$50) from selling surplus crops. She proudly explains, “I do not have to spend my hus-

**Saraswati and Surya Adhikari in front of their home garden.** Photo: Jacob Zucker



**Peeling pumpkin vines for a stew.** Photo: Jacob Zucker





Diversity is key to sustainability. Photo: Roshan Mehta

band's hard earned money any more to buy expensive vegetables from the market. And now the community has also started listening to my advice on how to grow vegetables.”

**Women step up** Champa is not alone in finding herself having a new social status. The development of home gardens has brought prosperity and social development to communities in a number of ways. Not only have women developed their skills and knowledge about growing fruits and vegetables, rearing small livestock and linking farm products to markets, but they have also, developed leadership skills and increased their participation and influence in local affairs.

In addition, saving and credit groups have provided a platform for women to manage their individual and family financial resources. They now meet and discuss various issues at the community level. This increased and regularized group interaction has thus mobilised and enhanced rural women's leadership skills.

More than 80 home gardeners have stepped up to become their local community's 'resource home gardener', a role played by one in every 25 home gardeners. With initial technical and material support from the LI-BIRD project, 'resource home gardeners' have become focal points for the exchange of local knowledge and seeds. Sita Bhugel, living in Kathjor, Ramechhap, once grew very few vegetables and only during the wet season. After participating in the home garden programme, she started to grow many different crops all year round. She inspired and taught many of her neighbours and became a local resource contact. She has become so respected in her community that she was recently nominated to be vice president of the

village-level Agriculture, Forest and Environment Committee.

**An ideal approach** The maintenance and expansion of genetically diverse home garden systems is an ideal approach to ensure nutritional security for farm families in Nepal. A wide range of fruits, vegetables, medicinal herbs and spices helps to supplement often limited family diets, and provides a host of essential micronutrients in the process. As the vast majority of rural families already maintain home gardens this undertaking can build on existing local knowledge and requires minimal financial investment. The result is widespread implementation and spread of this grassroots method.

On a broader level, home gardens offer increased resilience for farming households in the face of risks brought about by climate change and the migration of many men who migrate to urban centres in search of off-farm employment. Women are developing their capacities to produce food, generate income and take leadership positions. They are feeding their communities while cultivating and conserving a wealth of local biodiversity – species and varieties that are better able to resist the vagaries of more frequent and severe droughts, unpredictable climate changes, and pest and disease outbreaks.

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# Finding a way out of the maize

Recurring drought and crop failure in many parts of the world have led to food and nutrition insecurity, and a dependence on food aid. But recently, some farmers in Kenya have been developing their own sustainable way to secure enough nutritious food along with extra income so that they can send their children to school. Traditional drought tolerant, nutritious crops such as cassava, sorghum and millet that were losing popularity due to a surge in maize production are again becoming commonplace, with reliable harvests improving diets and income.

Mary Mwendwa

**T**he dryness of the soil in Mutunga's farm shows that it has not rained for a long time in Mutomo district in eastern Kenya. "The last time I had a good maize harvest was in 2003," says Mutunga. He is amongst a growing group of farmers in the area who are diversifying their crops as a way of dealing with the changing climate that is putting their lives at risk. But this has also had other benefits, including a greater nutritional diversity.

**The coming of maize** Following colonialism, maize gradually became a staple in the Kenyan diet, replacing traditional crops such as sorghum and millet. Nutritional repercussions from this dietary shift were significant, as maize alone does not provide a balanced diet in terms of proteins, vitamins and minerals. Sorghums and millet are rich

sources of B-complex vitamins, and cassava is a source of calcium and vitamin C, as well as a major provider of calories.

"People here were used to planting maize, but harvests have failed more and more, and so they have turned to drought tolerant crops such as sorghum, millet, cowpeas and cassava," says Benedict Mathitu, an extensionist. These crops are not new. In fact, they used to be highly valued but we have forgotten about them. Neglected by people and science, they are also sometimes called 'orphan crops'. Musenya Joseph, one of Mutunga's neighbours' explains, "These crops were planted by our ancestors a long time ago, but we abandoned them. Now that things have turned bad on us in terms of the harsh climate, we are going back to these crops as they can withstand drought. We have seen the benefits and no doubt this is our best option for now."



Kenyan mothers are the key actors in family farming. Photo: Bozena Baluchova

**Spreading risk** The average annual rainfall in Mutomo district is 300-600 mm and it is one of the poorest parts of Kenya. Farmers find it difficult to invest in planting anything that is not drought tolerant, and they need to spread their risk and also plant as many different crops as possible. Intercropping sorghum, millet and cowpea with cassava and maize is one way of doing this. Cassava is suited to areas where rainfall is uncertain. A well-established cassava plant can resist drought by shedding its leaves, and resuming growth only when the rain starts. Similarly, sorghum and millet are relatively easy to maintain. They are less susceptible to pests and diseases, and when harvested and stored in a dry place, they can be kept for long periods.

**Diversifying crops and diets** The benefits of returning to orphan crops are foremost felt in farmers' bellies. Even though the main motivations for returning to these traditional or neglected species was to guarantee a harvest even in drought years, moving from maize to cassava, sorghum and millet has had profound implications in terms of nutrition. Anastancia Musenya, whose farm is dotted with cassava plants says, "Cassava is our saviour in this hunger-stricken region where we get regular droughts and famines. Cassava can withstand harsh weather

and its nutrition is really good." Cassava is a good source of carbohydrate, though there are inconsiderable differences between varieties in their nutritional content, with some containing cyanide that requires a lot of cooking to break down. But where Anastancia lives, cassava has become the new staple crop replacing maize.

But farmers in Mutomo also know that a diverse diet is more than just the sum of its parts, and is more than just calories. "We don't grow cassava alone, we have cowpeas, millet and sorghum too," says Musenya. "Sorghum and millet are some of our traditional crops which we grind to make highly nutritious porridge flour" adds Mutunga. "Lactating mothers and babies feed on it and even during drought everybody is saved by the porridge."

Orphan crops are regaining popularity as farmers realize the nutritional wealth that was left behind by their forefathers, and intercropping is becoming common as farmers strive to cultivate diversity. Tamarind trees, pigeon pea and green gram are just some of the traditional legumes that had been forgotten but are now being grown again. Anastancia says, "Tamarind and pigeon peas were a part of our forefathers' diet. Tamarind is very good for adding to the porridge which we cook here, for flavour and more protein." Other complementary crops being more widely grown



Farmers at Mutomo market selling cereals. Photo: Mary Mwendwa



Wikwatyo wa Kandae farmers being trained by Martha Mwangi. Photo: Mary Mwendwa

in recent years include mangoes, bananas and other fruits.

**Support and self-help** Although recurrent drought forced many farmers to start diversifying their crops, the transition needed community level support to address remaining challenges. Cultural barriers such as associating cassava with a ‘poor man’s diet’, and practical barriers such as pests and diseases, needed to be overcome. But a large number of self-help groups became established to discuss and tackle these challenges, and this enabled many more farmers to make the change. Mutunga is a leader of several self-help groups. One of the groups is *wikwatyo wa Kandae*, meaning ‘the hope of Kandae’, and organises training on cassava farming for its members. The group receives a lot of support from the Ministry of Agriculture and from community based organizations.

## The diversity brings nutritional value into the home, onto the market and at the same time builds resilience.

Musenywa, also a member of the group, says that the biggest challenge they faced when starting to grow cassava was getting hold of quality seeds. Two problems were that the cassava mosaic virus and cassava brown streak virus are common, and that cassava takes longer to mature meaning that more planning is needed. Thankfully, Dr. Cyrus Githururi, a government agronomist and crop physiologist, helped to develop a disease resistant and quick-maturing variety, and he calls upon farmers to use such new varieties of old crops to help fight poverty and poor nutrition in their homesteads.

Martha Mwangi works with more than 40 farmer groups in the region. Her role is to assist them with training on farming methods that are more suitable for the current climate. She works closely with KARI and the Ministry of Agriculture, and facilitates a lot of the communication between them and the farmers in Mutomo. She believes that cassava farming has greatly improved the livelihoods of many farming families in the area. Extensionists confirm that farmers have really welcomed the shift to drought tolerant crops after participating in training through their self-help groups.

### New crops, new opportunities

The self-help groups do more than just facilitate training on growing crops, however, explains Mutunga. “We also have a savings scheme where members contribute money, which is used in times of emergencies like drought, and for providing school fees for our children.” They motivate each other to learn more about making nutritious and tasty food and support farmers to sell the surplus from the crops they now grow, such as millet, sorghum and pigeon pea. The groups that Martha Mwangi works with own a bakery which makes bread from a mix of wheat and cassava flour. Cassava chips, crisps cakes and chapattis are also made and sold in local markets, with sales estimated to contribute 300-500 Kenya Shillings (about US\$3-5) a day to each household. This is an important addition to farm income, and it provides more nutritious foods for others to consume.

This renewed diversity means that more food is available from the harvest. The diversity brings nutritional value into the home, onto the market and, at the same time builds resilience. This is a real boost to farmers who have up until recently, been suffering from recurrent drought and relying on food aid. Now they have rediscovered traditional crops, they spread their risk, learn together, and pass on the nutritional benefits to their families and others who buy new processed products from them.

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There used to be natural balance in the world. Indigenous peoples have always understood how their lives were part of a 'bigger picture', and how dietary diversity allowed for the introduction of as many sources of nutrition as possible. Coastal people might eat seaweed, mussels, abalone and urchins as well as fish. This was the time when what we ate was really what the forest, mountain or sea had to offer, and which would differ from week to week and from season to season. Eating was as diverse as the environments that people found themselves living in.

But so much has changed today. Horticultural know-how, supermarket convenience and even 'food fashions' dominate our world. These influence our choices when it comes to what we find on our plates, though the possibility of bringing back more diversity is ever present. We talk about conserving biological diversity and agrobiodiversity, but the crucial next step is surely to incorporate this into our eating habits. We need to introduce the genes of these multiple species to our own genes, and so help our bodies to adapt and evolve within our changing world. We need dietary diversity.

Last year I attended a meeting in Uganda with Slow Food International that launched the 10,000 Gardens in Africa project. We attended training courses in various small villages where the great Ankhole-Watusi longhorn cattle roam. Our meals, be it breakfast, lunch or dinner, had at least seven species per plate. Sometimes double that. Each meal was also accompanied by a local and very bitter variety of eggplant that aids digestion. And on every plate there was something to satisfy every taste.

Understanding the health of the individual requires an understanding of the context of family, community and culture. How do we view health and how does nutrition fit into this? Africa is rich in heritage and full of diversity, of species, cultures, languages and recipes. These instill a sense of identity within each individual, especially important during post-colonial confusion. Yet we are now living in a time where ocean and land grabbing are huge threats, and corporate control is usurping local knowledge and giving us only 'cut and paste' solutions to our many current problems. Our identity should give us cultural pride and remind us what it is we are fighting for. We are fighting for diversity, reconnecting with our history, and fostering a new custodianship with our land.

**Zayaan Khan** advocates for agrarian transformation with the Land NGO Surplus People project. Working through the Slow Food International network and the Slow Food Youth Network South Africa, she has experienced first hand the power of community and the infinite diversity within the food system.  
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# From biodiversity to dietary diversity



# Guinea pigs

– small livestock  
with **big** potential

The right to food sovereignty is a part of the Plurinational State of Bolivia's constitution, but what does this actually mean for family farmers? The truth is that many people in rural areas are far from having access to adequate food and nutrition, with 37% of children under five reported to be suffering from stunting caused by malnutrition. Amongst the institutions and initiatives that aim to improve food security and sovereignty, the *cuy* (or guinea pig) project stands out for the inroads it has made towards improving food and nutrition at the family level.

Eduardo Lopez Rosse A.

**S**ecuring access to enough nutritious food is the major concern for most family farmers in Colomi, central Bolivia, and the recent rises in food prices have made things worse. Beef used to be an important source of animal protein, but the increasing cost of meat meant that people had to seek alternatives. In 2011, World Vision started the 'cuy project' to explore ways of improving the food security of family farmers by promoting the production and consumption of guinea pigs.

**Benefits all round** Guinea pig meat is high in protein and low in fat, and the little animals show great potential to improve the nutrition and livelihoods of farmers by providing food and income, but also in the wider community with more affordable meat for sale at local markets. In the farming families, children benefit most from the increased availability of fresh and nutritious meat from home-produced guinea pigs.

Consumers too benefit, being happy now to be able to buy guinea pig meat at local markets, particularly since the quality and hygiene has improved. Corina, a housemaid from downtown Cochabamba city said, "two years ago the presentation of guinea pigs at market was not very appealing, and people like me did not buy it even though I like the taste a lot." Another consumer at a local supermarket said enthusiastically that, "it is an innovation to find guinea pig meat at this supermarket, as it was looked down upon for many years." And the meat is not only sold in local markets and supermarkets. Those involved in the project also sell 350 guinea pigs a week to local restaurants.

**Breeding for success** For local women, i.e. those entrusted with the important task of feeding their families and supporting their children's growth and development, the *cuy* project was an interesting proposition. It offered a new opportunity to produce protein-rich meat and to earn additional income.

A total of 38 families from Colomi joined the project. Each family received between two and four mating pairs, training in how to raise them, and initial support for buying cages, roofing material and supplementary feed. The training courses covered various aspects of animal management including how to separating them by age and gender, breeding and sanitation. Courses were organised as part of regular weekend meetings when most people were available. Jorge Ayala, a project coordinator, notes that "At the beginning, only a few people were interested in the meetings, but two weeks later more people started attending." Over time, the meetings evolved into sessions where farmers would share their different experiences with, and approaches to, guinea pig farming.

**Fitting the local context** Besides the increasing demand for improved access to affordable animal protein, there were a number of other reasons why the project had such a huge success.

It is no coincidence that guinea pigs are well suited to the local culture. Guinea pigs, one of the oldest domesticated animals in the Andean region, have been part of farmers' diets and rituals for centuries. All of the families were familiar with raising and eating guinea pigs and a number of families already kept a few. But breeding and eating guinea pigs still had a certain stigma attached to it, so much so that it was difficult to find traditionally knowledge on raising guinea pigs.

Learning within the project was strongly supported by the existing social bonds between the participating families. They were already part of a strong social network, with most being active members of their local church group. Others in the community also became interested and wanted to join. "I was interested in the project because I saw my neighbour's experience with cuyes," explains Eliana, one of the newer participants. Learning and experimenting as a group also made the experience much more manageable for many of them.

## Guinea pigs

The guinea pig (*Cavia porcellus*) is neither from Guinea nor a member of the pig family. This rodent, also known as *cuy*, *cobayo* and *cavy* in Latin America, was domesticated in pre-Columbian times, and is a well-known source of meat in Peru, Ecuador, Bolivia and southern Colombia. There are an estimated 36 million guinea pigs in this region, where they are an important source of food as well as having spiritual and medicinal value. They are also reports of increasing interest in guinea pigs as a potential source of meat elsewhere in the world. As herbivores, guinea pigs naturally feed on large quantities of forage such as grasses, legumes, weeds and herbs. But they can also be fed on kitchen scraps and are very good processors of waste. Adult guinea pigs weigh between 1 and 2 kg and can provide a family's protein needs for a day, though the meat is enjoyed for its taste as well as its nutritional value. The meat contains more than 20% protein, which is higher than in chicken, beef, lamb or pork. And with only about 8% fat, it is also leaner than most other common meats. It is also rich in Omega 3 fatty acids and Vitamin B, and as such is a healthier as well as cheaper alternative to other meats.



Compared to raising other livestock, breeding guinea pigs is a relatively easy venture to get off the ground.

Photo: Eduardo Lopez Rosse A

Compared to raising other livestock, breeding guinea pigs is a relatively easy venture to get off the ground. It requires little initial investment, and so most households can afford to make a start, at least with bas. Not much space is needed and the animals are docile and easy to handle. Producing guinea pigs demand little in terms of farm resources, and does not compete with other farm activities to any extent.

**Building pride** For decades, farming guinea pigs was associated with poverty and a 'low class' diet. Many people still think of them only as rodents, vermin, eaten only by poor peasant farmers. These stigmas persist, but experiences in Colomi show that the tables are turning. In August 2014, a fair was held in nearby Cochabamba city to promote guinea pig farming and the consumption of guinea pig meat. Animals from different regions were exhibited, with a cookery competition and taste testing between different guinea pig dishes. More events like this will help to further demystify the eating of guinea pig meat.

**And from production...** Some families built cages, others used empty rooms at home if they had any, with each family taking their own,

slightly different approach to housing. This was also the case with feeding, as many families started to experiment with different types of food. "At the beginning I used to feed my *cuyes* with kitchen scraps" said Celia, one of the farmers. "After I received training, I began using supplementary feeds which I mix with the kitchen scraps. This provides my *cuyes* with a better meal and it reduces my expenses." All these and many more different experiences on feeding and housing were shared during project meetings, and this really helped with farmer to farmer learning.

Guinea pig farming really is a family affair. Often, adults in the household feed the guinea pigs early in the morning before work, leaving other tasks to children and older members of the household. The number of animals kept depends on the size of the family as well as the availability of food. The amount of money that can be generated through the sale of guinea pigs is also a consideration when deciding how and where to invest resources into the family farm.

**... to consumption** The link between production and consumption was strengthened by the active involvement of women, who made up most of those involved in the *cuy* project. Their main tasks used to be household chores, so breeding guinea pigs



Guinea pig dishes prepared for a local tasting competition in Cochabamba.

Photo: Eduardo Lopez Rosse A

presented a huge opportunity for these women to produce meat for the family and earn extra money too.

Eliana is from from Sipe Sipe. Two years after the project started, she now has 110 guinea pigs, most of which she keeps for family consumption. Isabel Laime similarly divides her guinea pigs, “every three months, 60 new cuyes are born. I prepare 40 for family dinners and sell 20 at Sipe Sipe market.”

**And increasing demand** Local families in Colomi are enjoying the increased access to nutritious animal protein and an additional source of income. But the positive impacts resulting from the *cuy* project are also being felt well beyond the initial project area, with guinea pig farming improving the nutrition of non-producing families.

“Meat quality has improved 100%,” says Jorge Ayala, involved in coordination of the project. Consumers are realising this and demand for guinea pig meat has begun to exceed supply, causing the prices to rise. Three years ago a 0.8 kg guinea pig was selling for US\$1.15 on the local market, but today, an animal of the same weight will sell for as much as US\$3.17. Local supermarkets are also selling around 3000 guinea pigs per week now, and which is expected to increase further in the future.

**Nutritional impact** Nutritional improvements in Colomi resulted from the convergence of a local need and an initiative which was very well adapted to the local context. Also, the women who



took up guinea pig farming facilitated the nutritional impact, as they were in a position to control the allocation of resources between food on their family’s plates and income for the household. The resulting resurgence of guinea pig meat production and consumption in Bolivia also holds promise for realising the potential of guinea pig production beyond the Andean region.

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Improving family nutrition is the primary goal of family farmers, though how they strive to do so varies considerably. As we see here, increasing crop diversity on their farms and growing more traditional varieties are two ways, but increasing livestock production is another that can also have huge impacts.

## The rich diversity of forest foods

“It is a massive crisis, a crisis that is not of our making. I fear our whole life, livelihood and culture may be lost forever if we do not start educating our children and future generations to conserve nature, live harmoniously with the seasons, and revive our traditional and biodiverse nutritional security.” This poignant lament of a tribal woman sums up the motivation behind the Tribal Food Festival held in February 2014 at Bissam Cuttack in Odisha, India. The festival showcased traditional food culture and age-old agricultural practices of the Adivasi communities. Over 600 Adivasis, mostly women from more than 200 tribal villages from all over eastern and central India, came to



celebrate the rich diversity of their traditional food culture. More than 1500 foods and dishes were on display, with 900 from wild forest plants. The festival was a vibrant celebration of food and culture, Debjeet Sarangi of Living Farms, one of the organisers explains. “A wealth of living knowledge yet exists in our indigenous communities regarding their forest bio-resources.” If such practices are nurtured and improved, they would provide far better food and nutrition security than the current public distribution system, and also help the communities and the forests protect each other.

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## Collective milk and manure

In 1997, falling groundnut yields and prices led 60 families in the Upper River Region of the Gambia to start the Misera Livestock Farmers Association (MLFA). Seeking to increase their incomes, they began to collectively manage a farm, supported by the Women’s Bureau, the Department of Livestock Services, and the Livestock and Horticulture Development Project. Membership has grown to 100 families and besides farming together, a communal spirit is thriving thanks to social and religious gatherings. Their focus on local breeds of sheep and goats has also led to other benefits. “This initiative not only improves our income, it is also improving the quality of our diets,” says Tida Danso. Income is generated from live animal sales, while up to two litres of milk per day became available for the

children. The collective is now increasing the number of breeding animals, and planting more fodder trees such as *Leuceana leucocephala* and *Moringa oleifera*. The manure has also doubled vegetable yields, so much more cabbage, sorrel, onion, okra, pepper and tomatoes now ends up on family plates and are not just for market, leading to a huge increase in dietary diversity. The group’s focus on nutrition is expanding, now involved in a project focusing on infant nutrition.

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# Afghanistan

## Female farmer poultry schools

In Afghanistan, imports of meat, poultry, eggs, cereals and even fruit and vegetables have become the order of the day. This has exacerbated poor nutrition experienced by vulnerable rural households. Empowered women producing local food are a strong link between increased production and nutritional improvements. Starting in 2010, a backyard poultry development project, funded by International Fund for Agriculture Development

(IFAD) through the Rural Microfinance and Livestock Support Program of the Ministry of Agriculture, Irrigation and Livestock, highlights this critical link. The project was built upon a participatory approach to training through female farmer poultry schools (FFPS). Women were empowered to take the necessary decisions to begin rearing poultry. These poultry schools also ensured that practical and affordable solutions to challenges with housing and feeding were developed. Some examples are halving winter feeding costs with hydroponic barley, wheat and sprouted pulse forages, and using readily available resources like mud and old plastic cans to make nests and coops. Today, 6000 village women are each producing and selling up to 2500 eggs every day, translating into income and food for their families as well as visible nutritional gains especially for young children.

**For more information, contact Mohammad Jafar Emal, national poultry advisor at the Ministry of Agriculture, Irrigation and Livestock, Afghanistan ([jafar.emal@hotmail.com](mailto:jafar.emal@hotmail.com)).**



# East Timor

## Healthy poultry make for healthy people

One egg can provide nearly half the recommended daily protein needs for children under three, and undernutrition is reduced more efficiently with access to optimal combinations of food from both animal and plant sources. Francisca José, a farmer from Aileu District explained that “If we don’t have money, we sell chickens to buy food and school materials. If we had more and healthier chickens, we could sell some and eat some. We eat chicken only once a month but with more we can have more eggs and eat meat more often.” But there is a problem –diseases causing high levels of chicken mortality, and especially Newcastle disease can kill virtually all the birds in a whole village. Farmers then keep many eggs to replace dead birds. Poultry are often owned and managed by women so training in vaccination and management was planned with this in mind, with more female extension agents from the Ministry of Agriculture, encouraging gender balance in community vaccinators, and village-level training



reducing the need for child care. Improved poultry production strengthens household food and nutrition security, reduces poverty, and benefits are also felt in urban communities when farmers can sell more birds and eggs.

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# Food fairs

revive local food  
and improve nutrition

Food fairs are an important tool and space to promote food sovereignty as they take place in local public spaces and within people's own socio-cultural settings. One excellent example was a food fair in Ghana, organised by the Centre for Indigenous Knowledge and Organisational Development (CIKOD). Women farmers exhibited traditional crops and foods, emphasising their importance for local and national food and nutrition security. The fair reminded community and political leaders of the value of neglected traditional foods. Some years later, it can be seen how this and subsequent food fairs helped to ensure the improved integration of traditional foods and agroecological farming into national food security plans.

Bern Guri and Patricia Dianon

In Ghana as in many other countries, government policies tend to give far greater support to the production of cash crops for export, than to local food crops that play a vital role for good nutrition and food security. This is especially marked in the more arid northern regions of Ghana that are most affected by climate change and declining soil fertility. This has led to the paradoxical situation where the country is experiencing increasing economic growth generated by agriculture, based on export crops such as cocoa, pineapples and bananas, while at the same time food and nutrition insecurity in rural households in the drier regions of the north are also on the rise.

To advocate for the production of more 'food to feed the family,' to diversify crops to include local foods for nutrition, and to reduce risks caused by climate change, CIKOD organised a traditional food fair in June 2011 in the district of Lawra in Upper West Region. More than three hundred women farmers, led by their traditional female leaders and hundreds of men and children from the Lawra and Nandom areas, participated in an exhibition of indigenous foods and seeds.

**Traditional food and crops** To improve access to local foods and diversify family diets for better nutrition in rural communities, it is essential to learn from traditional food production practices. There are very many more traditional or indigenous crops as compared to the handful of staple crops that have become widely promoted in the name of the Green Revolution where the focus is only on short term productivity gains. Furthermore, a diet consisting of traditional crops provides a far richer level of nutrition than these now dominant staple crop plants.

In northern Ghana, traditional cereals, legumes, roots and tubers, such as sorghum, millet, groundnut,

*songsoli* and yams, grown with local knowledge passed from generation to generation, provide families with a balanced nutrition. Another advantage is that such crops often produce at least some yield even in dry years. Thus, traditional crops contribute to nutrition not only through diversified diets, but also by reducing the risks associated with uncertain rainfall, and ensure food security even in drought years. They are adapted to local conditions and so require fewer, if any, of the costly external inputs that are needed to grow rice, maize or specialised export crops.

Women from the Rural Women Farmers Association of Ghana (RUWFAG) carried out a successful awareness raising campaign at market places throughout the district about the adverse health effects of eating vegetables that had been sprayed with toxic pesticides. Based on their traditional knowledge, and armed with data about local cases of sickness and even death caused by the use of toxic chemicals in agriculture, RUWFAG had all the ingredients necessary for an effective information campaign at their food fair, in order to promote traditional, climate resilient and diverse foods that increase nutrition and build food sovereignty.

**All walks of life** The food fair was a special occasion where local farmers, traditional leaders and political leaders came together in the same place to chew over the same issues. But each group used their own way to express themselves in relation to local foods.

The regional minister and the Paramount Chief both recalled memories of the way they used to eat traditional foods and the meaning these foods used to have. However, both noted that such local foods have become rarer over the years. The coordinator of RUWFAG, Madam Rebecca Sebri, described in detail the negative impacts of genetically modified crops, pesticides and chemical fertilizers on the health of rural families. This was corroborated by the representative of the Ministry of Health, Madam Doris Ziekah.

Performing arts by local people played a major role in the fair. Women from different villages took turns to perform songs that described the lack of adequate amounts of healthy food, and the negative effects of industrial farming methods. These songs, some of which were spontaneous, also conveyed strong messages on the value of traditional foods. All such songs were accompanied by dancing.

This was followed by an official tasting session of more than 50 traditional foods by the dignitaries and the general public. The local foods tasted included *tuu*, *beng saab*, *tubani*, *perkpaga*, *gbulyang*, *bir-neme*, *nyusaab*, *piereh*, and many other dishes. It was especially significant that traditional leaders ate these foods in front of other people. Although this went against

#### Singing and dancing at the food fair.

Photo: Groundswell International





Proudly displaying nutritious traditional dishes at the food fair. Photo: Groundswell International

community customs, the traditional leaders decided to do this to show the importance they gave to the message of promoting nutritious local foods.

**A new surge in popularity** As a result of the fair, traditional foods, once looked down upon particularly by the youth, have now become much more popular. Importantly, this heightened cultivation and consumption of local crops has been matched with the increased recognition of traditional foods and the role of women at the political level.

The Director of the Ministry of Food and Agriculture extended an invitation to the women of RUWFAG to provide an exhibit of local foods at the upcoming District Farmers' Day celebration. They accepted, and were subsequently awarded a prize for their contribution to food security in the district. The Director later invited the leaders of RUWFAG to his office, where they discussed how the ministry could accommodate their ideas into district planning and priorities.

Youth in Tanchara took a cue from the success of the traditional food fair and organised a quiz on traditional crops and foods. This was a novel means of educating themselves and their friends. Soon afterwards, traditional women leaders decided to organise similar fairs in Ko and Tanchara districts.

The food fair also motivated women farmers in the Lawra and Nandom areas to invest in increasing the production of traditional crops on their fields. They started a mutual savings and loan support programme to provide access to credit to women members to buy seeds, and for engaging labour to increase the areas

grown with traditional crops. The subsequent season saw a doubling in the production of such crops, including *kpur-womeh*, *piereh* and *songsogli*.

A little while after the fair, an organisation of midwives approached CIKOD with a request for developing a recipe book of traditional dishes using local crops. This recipe book proved a great success. It continues to be distributed to all the pregnant women they support.

**Factors of success** The active engagement of political and traditional leaders was one of the keys to the impacts of the food fair. The CIKOD team followed the appropriate protocols in inviting the chief *pognaa* (the women's traditional leader) and the District Chief Executive. They did this well in advance, so building trust and the basis for a long-standing relationship with the traditional authorities.

Their participation was essential, because the public tasting of traditional foods by the political and traditional leaders, especially the chiefs, helped to convince the general public of the value of traditional foods. As the saying goes, 'what the eyes see, the heart desires.' Tasting the food convinced people of the importance of traditional crops, and brought back many memories. The *pognaa* of Lawra, Pognaa Karbo lamented that, "When I was a young girl, *bengyaar* and groundnut soup with *kaziong-saab* was what was prepared to feed the young men that came to help on my father's farm. This traditional diet gave them strength and vitality for the hard work. This has now been replaced by rice."

The socio-cultural setting of the fair was also important. The local tradition of having a fair, being familiar to the many farmers who attended, made people feel comfortable. The fair was based on local knowledge and local resources which added to a sense of ownership by the men and women farmers who attended. Morale at the fair was boosted by the wide publicity provided through radio, television and print media. This was possible because of CIKOD's good relationships with journalists. Various publications all had positive captions encouraging everyone to patronise traditional crops and food.

**The bigger picture** This fair and the promotion of traditional crops and foods directly confront the dominant food system based on Green Revolution technologies and thinking, which has permeated most of Ghana. Food fairs are part of a broader range of activities that promote agroecological farming, and together are important in challenging this increasingly entrenched farming system.

This experience has shown how food fairs, if organised to create a common space for farmers, traditional

and political leaders, can have huge potential for further strengthening the role of traditional foods and crops, while also strengthening agroecological practices. In many West African communities there are thanksgiving festivals after harvests. These local festivals are also wonderful opportunities for holding traditional food fairs that demonstrate the value of traditional food crops as a means of increasing food sovereignty and nutrition security.

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**Women celebrate the benefits of agroecology and healthy food.** Photo: Groundswell International



A photograph of Luis Ginocchio, a man with a mustache, wearing a light-colored jacket over a collared shirt and tie. He is holding a microphone to his mouth and gesturing with his right hand raised. The background is filled with various food items, including what appears to be a large fish and some bread or pastries.

**“Gastronomy  
is a search for tasty, local,  
nutritious food”**

Promoting the holistic nature of nutrition and its links with gastronomy is Luis Ginocchio’s ‘bread and butter’ as the expression goes. For Peru’s former minister of Agriculture, who also authored the book ‘Small farming and food’, it is an overriding interest. Gastronomy is defined as the practice of choosing, cooking, and eating good food, or the cookery of a particular region. Ginocchio links it directly to nutrition and local food production systems.

Interview: Teobaldo Pinzás

**H**ow can gastronomy address the link between family farmers and nutrition?

I work with the Peruvian Gastronomy Society (APEGA), and we are currently helping to articulate the views and needs of small scale family farmers and small business in our cities' food markets, and improving their business management tools. We have been working with a group of farmers for more than a year now, shortening marketing chains with a new Sunday market in Magdalena district near the centre of Lima. Lima's markets are key public areas to strengthen the prosperity of family farmers as well as the nutrition of urban families. We also hope to improve how these markets are managed and run. A third component we are working on is an information system that will include not only the prices of the main crops at the market that are produced by family farmers, but also the territories that the various products come from, and how the producers are organised. These will all help consumers to recognise the origin of the food they buy, while also increasing the income of family farmers.

**What are the main challenges for your initiatives?** Family farmers face a number of challenges in order to be able to market their produce, such as long distances from the farm to asphalted roads, especially in mountainous areas, being far from markets in larger cities. They are also struggling against the growing popularity of other, illegal crops. We also feel that gastronomy faces a double challenge in Peru. This first is to make family farming viable, considering it produces the largest amount of food in the country. The second is to fight against nutritional deficiencies, expressed in high rates of chronic child malnutrition, reaching levels of 40% and more in some parts of country. This highlights a great paradox: Peru, a country that has such a great agricultural biodiversity, such an abundance of species, such a huge variability of flavors and nutritional content in the food that it produces, originating from amazingly varied ecosystems, still has such very high rates of child malnutrition.

**What is your strategy for reducing malnutrition?** We are working on another project that we have called 'the Peruvian diet', through which we aim to promote a healthy, nutritious and tasty style of eating that will increase the well-being of Peruvians, especially children. We are going to launch the Peruvian diet at the end of 2014 in a food fair. The Peruvian diet will promote the consumption of many nutritious Peruvian dishes and the produce of small rural agricultural

enterprises, many of which have been replaced by other products brought in by globalisation. Therefore, what the Peruvian diet aims is to persuade consumers that we need to recover what we have lost, in other words the consumption of traditional products with a positive effect on our nutrition. We are going to do this with the support of the Ministry of Agriculture, and we hope that the Ministry of Health will also participate, as well as the Ministry of Development and Social Inclusion, which through its school breakfast programme, plays a very important role in the development of local food supply. It is essential, for example, that this programme should purchase local produce. The slogan proposed by APEGA for 'the Peruvian diet' project is "Eat tasty, eat healthy, eat Peruvian". In other words, we must revalue what we have, in order to innovate, recover our best culinary traditions, and use the immense pantry provided by our biodiversity to win the fight against the scourge of hunger and chronic malnutrition, especially in children.

**“Eat those products that are near you, the products produced in your region, and recover the eating habits of your parents and grandparents.”**

**What is your message?** The message to the general public is "eat those products that are near you, the products produced in your region, and recover the eating habits of your parents and grandparents". The Peruvian diet calls on governmental organisations to take ownership of and promote this initiative, especially in the regions with the highest rates of malnutrition

**Is this about going back or looking forward?** The revaluation of locally produced food does not mean a denial of modernity, it means recovering what made us strong, what gave us vigour in earlier generations. We have no qualms about saying that globalization is positive for the world. But to improve our nutrition we need our family farmers and our local retail food markets. In Lima alone there are an estimated 2000 markets, including street markets, open markets and groups of stalls where good food is sold, as well as countless



Andean grain quinoa. Photo: APEGA

neighbourhood grocery stores where fresh produce can be found. At the same time there is a change in the food paradigm worldwide. Not long ago I was reading about a global hamburger chain that has seen its sales go down consistently over the last two quarters because consumers are opting for local food, as these people now want to recover their local cultural expression. Gastronomy is a cultural industry; it is an expression of our people. The search for healthy food is also a search for tasty food – a gastronomic search. Every year we hold a Gastronomy Fair called *Mistura*. This year a chef and a farmer cooked side by side, providing a wonderful image of how we work together to tackle the challenge for healthy food.

**What about obesity?** Malnutrition is also about inadequate eating, which generates another public health problem, obesity. Eating well is also about the combination and the volume of what we are eating. At the *Mistura* Gastronomy Fair this year, it was said “eat tasty, eat healthy, eat Peruvian and eat little.” This is a message that needs to be disseminated, and APEGA is collaborating with the Ministry of Health, NGOs and diverse local organisations around campaigns to promote better eating. This means that we must balance, combine and measure our rations.

**Is Peru alone in its efforts?** No. The Public Health Ministry of Brazil has recently published an update of its guide on nutrition, a document that provides guidance to the country’s consumers. Our sisters and brothers in neighbouring countries are also making efforts to promote good health and nutrition by bringing old traditions back to life, recovering ingredients and products that are not or only rarely consumed today. To innovate means to apply knowledge in new places, but we must not deny the origin of this knowledge. Our knowledge about food comes from far back in time, our history,

containing wisdom on which we have to continue building.

**How can this help family farmers?** Some people think that family farming cannot ensure the adequate nutrition of a growing population. They insist on the idea of incentivizing large-scale ownership of agricultural land and the application of ‘conventional’ or industrial farming, with the intensive use of synthetic fertilizers, pesticides and even genetically modified seeds. So this defines our pending agenda – how to make family farming a viable enterprise. But very importantly, we have to face the challenge of how to make the countryside attractive to a younger generation, because most farmers today are more than 50 years old. This is related to the promotion of effective producer associations and to the need to increase productivity.

**Where do we go from here?** We are trying to create a change in market demands, so that more people will buy the products of family farmers. But family farmers must also produce foods that meet market requirements. At APEGA, we have just undertaken analysis that found that the current cost of labour in Peru makes it difficult for family farming on terraces to be viable. The conclusion is that recovering the terraces requires mechanisation. It is paradoxical that in a country that needs to generate employment we have to recur to mechanisation, but without it there will be no production and the terraces will be abandoned. Cultivating terraces is a pre-Hispanic technique that enables us to increase the area of agricultural land, and Peru is a country with very little actual agricultural land per capita.

**“We are a country where people can come and learn how to eat”**

We are not a country with great expanses of land in which to sow genetically modified crops, as other countries do, especially in South America. To the contrary, we are a country that can produce a great variety of crops, with very diverse tastes, scents, colours that can excite the palate, to supply our gastronomy, and our nutrition. We are a country where people can come to learn how to eat. APEGA is conscious that this is a very ambitious goal, but we are working towards it day in and day out, so that nutrition becomes one of the great components of gastronomy to the benefit of everyone in our country, and beyond.



**T**eff. We all grew up loving it. We are still mad about it. But years back, we were taught that all it contained of any nutritional value was iron. As when straw is mixed with mud to make houses, it was a common joke that when you eat teff you plaster your gut. The failure of our national football team was even blamed on eating teff. So I was shocked when some 15 years ago, I was told that it is better than wheat, barley and even quinoa in its nutritional content.

We have a lot of varieties of teff in Ethiopia. Some estimate more than 60. I remember asking a group of students in 2002 about the value of having all this diversity. They came back the next day and said that they are needed for different soil types and altitudes, and the crop is also valued for cultural ceremonies and especially by women as it is very nutritious and important for children. Asked about the current situation, they said their parents told them that many varieties are being lost.

This raises a lot of questions. Why was teff not valued nutritionally by 'the educated' before, and what would have happened if we had lost this diversity forever? How many nutritional food plants are out there that we do not yet know about? The world has lost over 93 per cent of its seed varieties and is relying on a dwindling reserve. Are the new hybrid seeds, the central components of large scale agriculture, as nutritious as grains like teff? Research has shown that the food grown organically by smallscale farmers is much more nutritious than food from industrial processes.

A persistent worry for me is the loss of knowledge related to these nutritious crops. The story of the students shows how the youth are not learning from their parents. How then can we transfer this wisdom to the next generation? What will happen if that knowledge is lost? One of the biggest conferences on Green Revolution technologies was recently held in Ethiopia. The main outcome was that high input agriculture was needed to boost food production in Africa. What then will be the fate of the many unknown, undervalued and potentially nutritious crops if and when they succeed?



**Million Belay** is the director of the Movement for Ecological Learning and Community Action (MELCA), Ethiopia, and the coordinator of the Africa Food Sovereignty Alliance. He has been our regular columnist during 2014, and we thank him for his insights throughout the year.  
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# Will the Green Revolution really 'nutritionalise' Africa?



## Agroecology: What it is and what it has to offer

L. Silici, 2014. IIED Issue Paper. International Institute for Environment and Development (IIED), London, UK, 28 pages.

This paper provides a concise overview of agroecology, what it offers, barriers preventing it becoming more widespread, and what needs to be done. The scene is set with how agroecology has evolved as a scientific discipline, set of practices and a social movement, and an analysis of the growing body of evidence on what it can offer. Despite evidence that agroecology offers sustainability, productivity and food sovereignty, promotion of agroecology in public agricultural policies, research and extension is still limited. The report concludes by looking forward, with suggestions on how to remedy this. The author calls for continued consolidation of the evidence base to support agroecology and to build constructive complementarities between agroecology and so called conventional farming. Lastly, we are reminded that a fundamental cultural and philosophical shift in how we define 'productive' and 'efficient' agriculture is needed.



## The State of Food and Agriculture: Innovation in Family Farming

Food and Agriculture Organization of the United Nations, 2014. FAO, Rome, Italy. 140 pages.

This annual collection of thoughts and figures on agriculture and agricultural production by the world's leading organization devoted to food-related issues, is this year dedicated to family farming. The annex tables are as informative as ever, providing an overview of key information regarding trends in land holdings and labour. But the meat is in the text. The pivotal role family farmers play in ensuring that humanity is able to feed itself is clearly expressed. A very thorough review of all recent and relevant literature tries to find out 'what strategy should be taken towards small family farms?' The findings stress the importance of recognizing their diversity and the need to improve supplementary or alternative employment and income. However, FAO continue to promote the possibility of 'sustainable productivity growth' for poverty reduction and improved food security. To achieve this, it argues for two interrelated pathways: development and application of new technologies and practices via farmer-led and formal research; and application and adaptation of existing technologies and processes alongside traditional integrated farming systems. All in all it provides hope that we are beginning to 'see the light', but ensuring that this light burns brightly and continuously is another matter.



## Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition.

International Food Policy Research Institute, 2014. IFPRI, Washington DC, USA. 100 pages.

This excellent publication is full of essential reading and valuable figures on nutrition-related issues. It is aimed at nutrition champions and their allies. The authors propose three types of complementary strategies to address challenges underlying malnutrition and hunger: nutrition-specific, nutrition sensitive, and enabling environmental investments. The report concludes that these strategies can have high human and economic returns. But the report fails to highlight the vital role of family farmers, especially women, in combating hunger and malnutrition, a notable omission in a document that appears in the International Year of Family Farming. Thereby, it overlooks the tremendous actual and potential contribution of 500 million family farmers to local and global food and nutrition security.



## Deep Roots

**J. Griffiths (ed.), 2014. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy, and Tudor Rose, UK. 256 pages.**

To celebrate the International Year of family Farming, FAO produced this extensive tome dedicated to stories surrounding the actual and potential future benefits of family farming. Deep Roots contains some 70 specially commissioned articles on diverse aspects of family farming from around the world, including regional overview papers that summarise the current situation and recent developments in each. ILEIA also contributed with an agroecological perspective in 'Unlocking the potential of family farmers with agroecology' (pages 42-45), followed by articles on gender and youth. FAO'S Director General Jose Graziano da Silva tells us that "out of 570 million farms in the world, 500 million are family owned, making the well-being of farm families inextricably woven into the overall well-being of societies, with tremendous implications for food production and sustainability." He also confirms the organisation's commitment to supporting FAO member states in shaping enabling policies and the knowledge environment for family farming in the years to come. Many photos in the book, including the cover photo, are entries in the AgriCultures Network's Family Farming Photo Competition.



## Smallholder Agriculture's Contribution to Better Nutrition

**S. Wiggins and S. Keats, 2013. Overseas Development Institute, London, UK. 96 pages.**

For most of the last 50 years, food production has increased ahead of population growth, with much of this coming from small scale family farms. Why then are such households still disproportionately vulnerable to undernutrition? The report does not address this question, as the real answer would indicate that more extreme actions are needed than the general recommendations put forward. These are that smallholder agricultural development can be an excellent way to reduce poverty and tackle hunger, that patterns of agricultural development need steering towards more diversified food production, and that smallholder agricultural programmes need backing up with primary health care, clean water and sanitation, female empowerment and other interventions. No-one may disagree with any of these, but it appears that much more is required, and that would involve a radical change in mindset regarding a rebalancing of power between family farms and local food systems, and the farming for profit agri-business model that currently dominates.



## Corporate Influence through the G8 New Alliance for Food Security and Nutrition in Africa

**W. Obenland, 2014. Bischöfliches Hilfswerk MISEREOR e.V., Brot für die Welt, and the Global Policy Forum, Germany. 23 pages.**

The New Alliance for Food Security and Nutrition (G8NA), was inaugurated in 2012 as a commitment by the governments of the G8, African countries and corporate sector partners to lift 50 million people out of poverty in ten years by "unleashing the power of the private sector." Ten African countries have signed cooperation agreements and several domestic and international companies have pledged to invest in areas relevant to food security and nutrition, amounting to more than US\$7 billion. The G8NA has been heavily criticized, however, and this report adds to the discussion. Core problems with the initiative are highlighted, including governance of the alliance, the dominance of large corporate actors, and that it is poorly integrated into existing international processes and agreements. It concludes with a call halting the G8NA altogether unless radical changes are implemented, such as greater transparency, more civil society participation, and framing options within Committee on World Food Security principles and guidelines.

# We've had enough of hunger and malnutrition!

Peoples' movements and civil society organisations have sent a powerful message to governments around the world during the Second International Conference on Nutrition (ICN2) held in Rome on 19-21 November. For three days prior to the conference, close to 200 representatives from all walks of life met to prepare a civil society joint position that was presented to the final plenary of the conference. And this is what we said and what happened.

Flavio Luiz Valente

**R**epresentatives from small scale farming, fishing and pastoralist communities, consumers and the urban poor, women, youth, indigenous peoples and agricultural and food workers gathered. These social movements joined civil society organisations to share their values and their aspirations. We joined forces to agree on a common vision on how to eradicate malnutrition in all its forms, and to hold governments and intergovernmental organisations to account regarding their obligations and commitments.

Our joint declaration presented to world governments started by stating that: *"It is unacceptable that in a world of plenty more than 800 million of our brothers and sisters go to bed hungry every night and over half a billion are obese. (...) The injustice of malnutrition has meant that several thousand of our children have died since this discussion started. These problems should have been tackled a long time ago."*

The conclusion of the official ICN2 negotiations is a welcome step, in particular its focus on malnutrition in all its forms, on the life-cycle approach and on the need to revisit the food system. We broadly welcomed the conclusions, but found them inadequate to face the magnitude of the malnutrition challenge. In particular, the concluding documents did not give due attention to the root causes of malnutrition.

**Vital issues ignored** Some of these root causes were only marginally dealt with, or were even effectively swept under the proverbial carpet. One of the vital issues is the increasingly negative impact of predatory initiatives by the private sector and especially transnational corporations, through land grabbing, and also the grabbing of oceans and lakes, seeds and native genetic resources, as well as cultural and social goods.

Another ignored issue is related to the severe negative impacts of the dominant agro-industrial food systems that erode and contaminate our soil and water, acidify the ocean, destroy biodiversity and dietary diversity, and add to the world's climate change challenge. The aggressive marketing of heavily processed

foods is the main cause of the obesity epidemics and similarly, the marketing of breast milk substitutes is undermining all the known health benefits of breast-feeding. Finally, in the conclusions no mention was made of the need to stop violence against women and violations of women's rights, including child marriage and unwanted adolescent pregnancy, which continue to be one of the most important causes of infant and woman malnutrition.

**Taking this into account** Our joint declaration notes these issues by stating *“that nutrition can only be addressed in the context of vibrant and flourishing local food systems that are deeply ecologically rooted, environmentally sound and culturally and socially appropriate. We are convinced that food sovereignty is a fundamental pre-condition to ensure food security and guarantee the human right to adequate food and nutrition.”*

*In this context, it is necessary to reaffirm the centrality of small-scale and family food producers as the key actors and drivers of local food systems and the main investors in agriculture. Their secure access to, and control over, resources such as land, water and aquatic resources, adequate mobility routes, local seeds, breeds and all other genetic resources, technical and financial resources, as well as social protection, particularly for women, are all essential factors to ensure diversified diets and adequate nutrition”.*

The declaration also reaffirms our understanding of food being inseparable from nutrition: *“Food is the expression of values, cultures, social relations and people's self-determination, and the act of feeding oneself and others embodies our sovereignty, ownership and empowerment. When nourishing ourselves and eating with our family, friends, and community, we reaffirm our cultural identities, interdependence with nature, control of our life course and human dignity. Understanding the challenge of malnutrition in all its forms therefore requires a holistic and multidisciplinary analysis, one that combines the political and technical perspectives.”*

**Rights and wrongs** At the same time, we demanded that all policies, programmes and action plans on food, nutrition and related issues, must be framed within an unambiguous understanding that the right to adequate food and nutrition and the right to health and water, are fundamental human rights. We also called for a clause to forbid the use of food as a political and economic weapon in the official ICN2 declaration.

However, it was not easy to get this accepted. Some powerful governments stalled the discussions, and attempted to eliminate any reference to the human right to adequate food and nutrition. They were able to significantly weaken the ICN2 declaration and frame-

work for action, but a few Latin American, Asian and African governments together with some European governments managed to salvage part of it. Effectively, these governments guaranteed that the human right to adequate food is mentioned at least in one paragraph, but not as the framework in which nutrition must be dealt with, and the present agricultural model was recognized as one of the main problems.

Some governments wanted to keep the global governance of food security and nutrition separate from the Committee on World Food Security (CFS), all though this is currently the most inclusive intergovernmental platform. Their intention to launch a separate UN nutrition governance network a few days before ICN2 was put in the open by civil society, and consequently aborted under pressure from member states.

In corridors in Rome, we heard that several governments from all continents are defending the food and nutrition governance mechanism proposed by us as civil society. Our proposal actually puts the Committee on World Food Security at the centre of promoting coherent food and nutrition policies with the realisation of human rights for all. We also called upon members states to request the Human Rights Council to ensure that the follow up to this ICN2 conference is coherent with respect to protection and fulfilment of the right to adequate food and nutrition, and related rights.

**Flavio Luiz Valente** is Secretary General of FIAN International, an international organisation that advocates for the right to food.. Email: [Valente@fian.org](mailto:Valente@fian.org)

*“22 years – an entire generation – have passed since the first International Conference on Nutrition. It is unacceptable that millions of people continue suffer from and die of preventable causes of malnutrition in all its forms. This violence must stop immediately. We call upon Member States to make clear and firm commitments at both national and international levels to ensure the full realisation of the human right to adequate food and nutrition and related rights. We will not watch idly as another 22 years pass by. We stand ready to play our part and take up our responsibilities. We demand that Member States and the UN system live up to their obligations. We hereby declare a worldwide People's Decade of Action on Nutrition. The time for action is now!”*

*From the Public Interest Civil Society Organizations and Social Movements Forum Declaration presented at ICN2, Rome, 21 November 2014. For the full declaration see: [www.fian.org](http://www.fian.org)*



# Towards stronger family farms

## Recommendations from the International Year of Family Farming

Photo: Somenath Mukhopadhyay

Improving the situation of family farmers is a burning need. And as they produce an estimated 70% of the world's food, it is an issue that affects us all. The 2014 International Year of Family Farming aimed to create a better understanding of family farming and support the development of pro-family farming policies. This article highlights some of the key proposals made during the year.

Janneke Bruil

**W**hen 2014 was proclaimed the International Year of Family Farming (IYFF), the United Nations shone a spotlight on the essential contributions of family farmers to food security, community well being, the economy, conservation, biodiversity, sustainable resource use, and climate resilience.

However, the trend in recent decades has been for governments to focus on agricultural commodities and free markets, while the majority of the world's 500 million farming families lack the investments and policies that would allow them to grow. Family farmers and their organisations are often excluded from decision making processes, and they are finding it increasingly difficult to access land to farm and the resources to be able to do so, including local seeds and breeds. Combined with climate change, this leads to increased rural poverty, chronic hunger, resource degradation, and an unprecedented outflow of people to urban areas, especially the young.

Throughout the International Year of Family Farming, specific policy recommendations and best practices were proposed, collated from many rich debates into nine highlighted areas that indicate the major issues affecting family farmers.

### 1. Cross-sectoral approaches

Discussions on family farming should also address urbanisation, rural infrastructure, traditional and indigenous knowledge and culture, education and support services, and youth development. A cross-sectoral and territorial approach was emphasised, such as in integrated rural development programmes. Diversified agroecological practices that use local knowledge should be promoted as the basis for climate resilience, and the importance of expanding income opportunities in rural areas were also highlighted, including off farm income and agritourism.

### 2. Agrarian reform

Repeated demands were made for genuine agrarian, aquatic, forestry and pastureland reform, to reduce urban migration and incorporate the right of access to land, water and irrigation, infrastructure, education, health and marketing, including for women. This included the exemption of small scale family farmers from policies designed for larger industrial farms. FAO was requested to ensure that the Principles for Responsible Agricultural Investment protect the rights of small food producers because of their central role in food production and because together, they invest more in agricultural development than any multinational. Promoting food sovereignty was raised as a means to strengthen family farming and eradicate hunger and poverty, and FAO was asked to promote a

broad, inclusive and dynamic analysis of the concept of food sovereignty.

### 3. Access to natural resources and implementation of the Voluntary Guidelines

Improving access to land and water should be prioritised through special land use and water management programmes. The right of farmers to produce, reproduce, exchange and sell their seeds must be protected, because “*without land, water and seeds, no peasant family farming is possible*”. Land grabbing was condemned, and there was a call for a moratorium on industrial agrofuel production. Overwhelming worldwide support was expressed for governments to implement the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests, considered as the best way to guarantee access to natural resources for small scale family farmers, especially women, youth and indigenous peoples.

### 4. Improving trade and building markets

Trade agreements and trade policies should be reformed or reconsidered, in order to better serve family farmers. Governments and other actors must guarantee the human, economic, social and cultural rights of small scale family farmers and food workers, and strengthen their access to markets and ensure fair prices, for example through the promotion of local markets, public purchasing from family farmers, and improved storage and transport. The value of food from family farming can be enhanced by establishing rules of origin, creating specific family farming labels, and providing information on its nutritional and health value.

### 5. Access to credit and finance

All regions recommended improving access of family farmers to reliable and stable financing, such as simplified lending procedures, insurance facilities to reduce risks, and the development of farmer-centred financial institutions.

Photo: Puranjit Gangopadhyay





The generation and gender gaps are the biggest threats to family farming. Photos: Claudia Calder.

## 6. Gender equity

Specific programmes are needed to empower women farmers, facilitating their participation in decision making and their equitable participation in flexible rural labour markets. Positive discrimination for women is essential, especially regarding access to natural resources and capital.

## 7. Stronger farmer organisations

The importance of producer organisations was emphasised, to balance the economic and political power of other actors, and to consolidate the voice of family farmers in policy making processes. Key areas were the need for governments to include farmer organisations in dialogue and decision making, capacity building programmes that are *'family farmer-centred, owned and led'*, climate change adaptation and value addition. Proposed activities included education and training

programmes, and sharing experiences between organisations.

## 8. Farmer-led research and extension

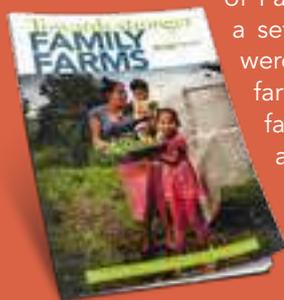
Innovative research and extension must put farmers at the centre and strengthen their own efforts, particularly as they are being most affected by, and are actively adapting to, impacts of climate change

## 9. Attracting youth

The participation of youth in agriculture should be enhanced in all possible ways, as *"the generation and gender gaps are the biggest threats to family farming."* Vocational training should be better geared towards agriculture and the needs of rural youth. Policies could support youth access to productive resources, especially land and finance. A holistic view of young people's needs is required, and policies must ensure the right of young people to live their lives in their own territory.

# A synthesis of recommendations

Throughout 2014, regional dialogues, civil society consultations, regional conferences and other events explored issues related to family farming. Many of these were (co-)organised by the Food and Agriculture Organization of the United Nations, the lead agency for the International Year of Family Farming. Across the regions, a set of key, common building blocks were identified to better support family farmers, raised by representatives of farmer organisations, governments, academia, international institutions and NGOs, amongst others. These are summarised in this article, adapted from the publication *'Towards stronger family farms.*



Voices in the International Year of Family Farming' (ILEIA/FAO, October 2014). It is available in three languages at [www.ileia.org](http://www.ileia.org).

## ... and after the International Year of Family Farming?

It is clear that the visibility and recognition of family farmers has taken a leap forward this year, including many signs of greater political commitment to support family farmers and to create pro-family farming policies. The farmers themselves, women, men and youth, have been able to articulate their perspectives and their aspirations, but there remain areas of great concern, so these empowering processes must continue.

We can only truly celebrate the power of family farmers when we can also guarantee their rights, and when the political, economic and cultural space is created for them to use their strength and choose their own development pathways. For this, the IYFF has generated many solid, proven approaches. As stated in one civil society declaration: *"the IYFF should be the beginning of a longer process that strengthens non-patriarchal, indigenous and peasant family farming. We are part of the solution"*.

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I am a family farmer. I know my soil, my climate and how to make things grow: plants, animals and soil fertility. I know how to harvest and prepare for market. I know how to feed my family.

I am a family farmer. I know my community and I help to feed it. I advocate and give a voice to those who don't have an opportunity to speak or be heard. I take part in community planning and celebration, and in debates on what is best for our collective future. During the International Year of Family Farming I became concerned about definitions of family farming that highlighted only labour, a purely economic designation, and not the social and environmental attributes. We family farmers live where we work, and we are embedded in our communities. We work where we live, and so have a high stake in assuring a healthy environment.

I am a family farmer. I work hard to represent the interests of family farmers, which differ very much from those of multinationals. I am a member of La Via Campesina and the National Farmers Union of Canada and it is my mandate to ensure the full participation of women in our organisation. I also support and champion our young farmers because they are our future. They revitalise us, hold us accountable, and teach us alternative approaches to investment, production and market development. We do not tell the youth what they need or how to farm. They tell us, and we learn together.

When we look at the family farm within the community at large, we understand much better the role of women and youth. Youth and women must have equal access to land and resources, including seeds, financing and markets. If they do not play an active part in our conversations and actions, in leadership and knowledge transfer, we must examine the situation and remove the barriers before it is too late. Above all, we must prevent violence, inequity and power imbalances that so often limit their participation. That is my message for policy makers during the International Year of Family Farming.

I am a family farmer and this is our year. After thirty years of farming, I understand some of the problems that farmers of the world face, and over time I have found answers that work for me. We can feed the world if we empower farming families to drive the solutions. And as farmers, we will deliver answers from our passions, our expertise and our resilience.

*This is adapted from a speech Joan Brady gave on 28 October 2014 at the Global Dialogue on Family Farming held at the Food and Agriculture Organization's headquarters in Rome.*

**Joan Brady** is a family farmer in Ontario, Canada (far left on photo). Email: [jbrady@hay.net](mailto:jbrady@hay.net)



# This is *our year*



Members of the AgriCultures Network (AN) are working together to advance family farming and agroecology, drawing lessons from farmers' fields, sharing knowledge, and working with social movements for policy change. Read our latest news.

### 'The cement in our work'

The *Kleine Aarde* (Little Earth), created by a Dutch grassroots sustainability movement, was the setting for the AgriCultures Network's annual meeting in November 2014. Members from Peru, Brazil, China, India, Senegal and the Netherlands met alongside new associates from Ethiopia and allies from Groundswell International, to reflect on the past year's experiences and plan for the future. Lively discussions surrounded the presentation of our activities promoting agroecological farming, some of which are reported on these very pages. The role of our regional and global magazines, as tools to systematically share grounded experiences and as vehicles to build political strength were dissected. Paulo Petersen from AS-PTA, Brazil summed it up well when he said, "*The magazine is the cement in our work. We open up new possibilities by showing concrete ex-*



*periences from family farmers that have force, including political force.*" Whether they are directly handed to a policy maker at an international meeting or broadcast on a regional radio station, local agroecological experiences are generating change on the ground and permeating policy making spaces. With new energy from the meeting, we remain firmly focused on connecting grassroots experiences with regional, national and global discourses driving policy and practice.

### Groundbreaking Agroecology Symposium

"*Agroecology can find a shelter under the FAO*" said José Graziano da Silva, Director General of the Food and Agriculture Organization of the United Nations in Rome in September, as he addressed 400 participants at the first International Symposium on Agroecology for Food Security and Nutrition. Scientists, government officials, and representatives from social movements presented grounded experiences showing how agroecology works in practice. Irene Maria Cardoso, member of the ILEIA board and president of the Brazilian Association of Agroecology, spoke about the important role that social movements have played in integrating agroecology into national policy in Brazil. Stephen Gliessman, University of Santa Cruz, explained that the challenge today is to strengthen links between agroecology and citi-

zens so it can contribute to healthier food systems. Pablo Titonell, Wageningen University, showed how farmers' knowledge and local innovations have influenced science and stressed that "agroecological principles are not recipes, but rather guidelines to develop locally relevant options." This was also the basis of a poster presented by the AgriCultures Network. The governments of France, Nigeria, Japan, Senegal, Costa Rica, Brazil, and the EU, were amongst those who expressed support for agroecology. That the FAO organised this symposium is a promising political step in its own right, but there is still a long way to go when it comes to transforming institutions and policies to effectively support agroecology.

## Promoting climate resilience in West Africa

Kicking off a multi-country initiative to promote resilience in semi-arid economies, IED Afrique organised a major video conference about climate change in October 2014. Representatives of producer organisations and NGOs in Senegal and Burkina Faso discussed how to better capitalise on existing policies to address climate change, and to identify gaps in research. This was part of a 5-year initiative involves

organisations in East Africa and in Asia. They will focus on five central themes: climate risks management; the link between climate risk and markets; governance, finance and institutions; the impact of climate change on human capital, especially on youth and women; and the impact on access to natural capital, especially forest and water. Major activities in all participating countries will include action research, case studies, and advocacy to improve climate related policies and regulations to enhance the resilience of semi-arid economies.

## And the winners are...

From more than 1300 photos that were submitted to the Family Farming photo competition, an internationally renowned jury made their verdict, and at the same time, thousands of people voted online for their favourites. The Jury's Choices and the Public Choices were announced at the Global Dialogue on Family Farming which took place at the end of October. The winning photo (above) was taken by Danilo Victoriano Jr from the Philippines. Have a look at all the winning photos at [www.agriculturesnetwork.org](http://www.agriculturesnetwork.org). Most of the winning photos are also included in the 2015 Family farming calendar (see page 2).



## Landscapes in Lima

With a lively Forest and Farming Families Living Landscapes Lounge, ETC Andes and ILEIA were present at the Global Landscapes Forum, held in Lima early December 2014, coinciding with the UNFCCC climate negotiations. Cases were presented that demonstrate how farmers shape their landscapes and advocate for greater political voice for farmers. The landscape-themed issues of the Network's magazines went like hot cakes. ETC Andes also participated in the 'Peoples' Summit' that was held in parallel. They joined social movements in Peru in issuing a powerful declaration calling for support to sustainable production, local economies, and stronger farmer organisations in order to adequately address climate change, and presented this as an alternative to the 'extractivist' approach of the Peruvian government and many international organisations.

More news can be found on [www.agriculturesnetwork.org](http://www.agriculturesnetwork.org)

## COLOPHON

### Farming Matters

Experiences in family farming and agroecology

Farming Matters is published quarterly by ILEIA

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# ileia

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### The AgriCultures Network

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

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“When nourishing ourselves and eating with our family, friends, and community, we reaffirm our cultural identities, interdependence with nature, control of our life course and human dignity.”

Civil society declaration to the ICN2 Nutrition Conference, Rome, 21 November 2014, page 36

**“I FEAR OUR WHOLE LIFE, LIVELIHOOD AND CULTURE MAY BE LOST IF WE DO NOT START EDUCATING OUR CHILDREN TO CONSERVE NATURE, LIVE HARMONIOUSLY WITH THE SEASONS, AND REVIVE OUR TRADITIONAL AND BIODIVERSE NUTRITIONAL SECURITY.”**

Tribal woman at a food festival in India, page 24

**“WITH OUR TRADITIONAL CROPS SORGHUM AND MILLET WE MAKE HIGHLY NUTRITIOUS PORRIDGE FLOUR. EVEN DURING DROUGHT EVERYBODY IS SAVED BY THE PORRIDGE.”**

Mutunga, a farmer in Mutomo district, Kenya, page 16

“We talk about conserving biological diversity and agrobiodiversity, but the crucial next step is surely to incorporate this into our eating habits.”

Zayaan Khan, page 19

