

Top 10 Food Trailblazers

02 May 2012 11:00

Source: alertnet // Anastasia Moloney



Ester Jerome, Tanzania, March 2012. Photo credit: OXFAM International

This story is part of AlertNet's special report "[Solutions for a Hungry World](#)"

By Anastasia Moloney

BOGOTA (AlertNet) - Who are the people behind grassroots movements, farming unions, groundbreaking research and government policy that are helping to stave off hunger, boost crop harvests and put more food on tables?

AlertNet put this question to dozens of experts and researchers from leading non-governmental organisations and research institutes involved in nutrition and agriculture.

Based on their responses, in no particular order, here's our "Top 10 food trailblazers", many of whom AlertNet interviewed.

[1. Monkombu Sambasivan Swaminathan](#)

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Monkombu Sambasivan Swaminathan

The father of India's green revolution



Many of the seeds farmers plant today - from Mumbai to Manila - can be traced back to the work of a diminutive Indian plant geneticist better known as M. S. Swaminathan.

During the 1960s, Swaminathan brought seeds developed in Mexico by American agricultural scientist Norman Borlaug to India. After cross-breeding them with local species, Swaminathan created a new variety of high-yield wheat that was more resistant to disease and pests.

His pioneering work led to India's so-called green revolution, which is credited with helping to end the country's history of famine and turning India into one of the world's major wheat producers.

"It was a turning point in our agricultural revolution," Swaminathan told AlertNet in a telephone interview. "It created confidence in India's capability as an agricultural producing nation among its farmers."

As part of his 'lab to land programme', Swaminathan spent the 1970s taking the new variety of wheat seed to farmers. He set up 2,000 model farms in villages outside New Delhi, encouraging farmers to plant the new seed and learn from one other.

Swaminathan's focus is now on raising the incomes of small farmers by boosting productivity and adopting more eco-friendly methods, while drafting public policy to protect the rights of small farmers and biodiversity.

Through his research foundation, Swaminathan is also working to improve the lot of India's women farmers.

"I want to reduce the amount of hours women toil in the fields in what is backbreaking work from 18 hours a day to cutting it down to 12 hours by introducing simple technology and tools that are easy and light enough for women to handle," he said.

The 86-year-old also continues to champion the common farmer, saying they deserve more respect.

"We are guests of the sunlight. There is always much to be learnt from the farmer, who deals with the rains and sun every day," he said. "We need to marry modern science with traditional wisdom. We have to give farmers more social prestige and the respect that they don't often receive."

For India's leading scientist, improving agriculture ultimately boils down to two key issues.

"Hungry soils lead to hungry people," Swaminathan said. "We have to conserve soil and use water better."

[Gebisa Ejeta](#)

Ethiopia's weed and drought buster



It has been a long journey from the one-room thatched hut in rural Ethiopia where Gebisa Ejeta grew up to where he is now - an acclaimed agronomist who developed a drought-and-weed-resistant form of sorghum which has been cultivated across Africa.

Ejeta spent the 1970s and 1980s working in Ethiopia and Sudan, developing a new variety of sorghum, one of the world's leading staple grains.

In 1994, eight tonnes of Ejeta's drought-and weed-resistant sorghum seeds were distributed throughout 12 sub-Saharan African countries. Since 1991 over a million acres of Ejeta's drought-tolerant sorghum has been grown in Sudan alone - producing yields that were four to five times higher than traditionally grown sorghum.

For Ejeta, one of the biggest problems facing farmers is the scourge of the Striga weed, a pink flowered weed, which devastates sorghum and other food crops, including rice, sugar cane and millet.

"The parasitic weed has a huge impact on millions of farmers in Africa and parts of Asia," said Ejeta, who is now professor of plant breeding and genetics at Purdue University in the United States.

Also known as witchweed, Striga weed has become an obsession for Ejeta who has made it his mission to better understand the weed's genetic makeup and how it attacks crops.

"Millions of people living in rural and developing areas rely on farming to make a living and eat. But science has not yet contributed much to change their lives for the better," he told AlertNet. "We must invest in research, science and technology to make crops more productive and more resistant to drought and disease. Otherwise farmers will face a much more desperate situation in the future."

Davinder Lamba

Urban farming champion



From small vegetable plots and rabbit breeding in the backyards of homes to cattle grazing on the roadsides, urban farming has helped hundreds of thousands of people in Kenya stave off hunger.

Over the past three decades, Davinder Lamba has gone from being one of Kenya's renowned human rights activists to becoming a leading promoter of urban farming and land policies protecting urban farmers.

"Urban farming is practically everywhere in Kenya. You can see it in the slums and in middle-income households," Lamba told AlertNet. "Households that can produce even just eggs mean their children are healthier."

At the Nairobi-based Mazingira Institute, a rights NGO and research centre that Lamba founded in 1978, thousands of local urban farmers have been trained in safer and more efficient ways of growing vegetable crops, producing goat's milk, raising livestock and managing waste.

"Urban agriculture can create innovation and become an enterprise. It's a question of adapting and making accessible existing technologies within the constraints of space and water that urban farming brings," Lamba said.

Popular innovative urban farming practices include vertical gardens, which feature tall sacks or large plastic bags filled with soil and vegetable crops planted in tiers to save space.

Vandana Shiva

Eco-feminist warrior



The daughter of a forester, Vandana Shiva is considered the pioneer of India's organic movement.

Growing up in a Himalayan village, Shiva became acutely aware from an early age that the surrounding forests and streams were inextricably linked to farmers' livelihoods and life itself.

That realisation fuelled a lifelong quest to protect the environment and biodiversity against what she says is the onslaught of genetically modified crops, multinational agrochemical companies and input-intensive agriculture.

For Shiva, these modern practices have exacerbated hunger and poverty, while decimating traditional farming methods and eroding soils in a country where two-thirds of the population depend on farming for a living.

"We have to grow food by using fewer resources. The high cost of chemicals has put farmers in a debt trap," Shiva told AlertNet.

Through her Navdanya Foundation, Shiva trains thousands of farmers in organic farming and traditional farming practices on a 20-acre organic farm in northern India. Instead of chemical fertilizers and pesticides, earthworms are used for manure.

Over the past two decades, Shiva has also created India's biggest network of seed keepers and organic producers, with 75 community indigenous seed banks reaching 500,000 farmers across 16 Indian states.

"We have to improve farmers' access to seeds and build local markets," Shiva, who describes herself as an eco-feminist, said. "Allowing the resources, land, water and seeds to be in hands of the producers is one key step towards ending hunger."

Lula da Silva

Brazil's hunger crusader



A one-time shoe shiner and peanut seller who grew up in poverty, former Brazilian president Lula da Silva – better known as Lula - never forgot what it felt like to go hungry.

It was something that fuelled his drive to ensure all Brazilians were able to eat three meals a day during his eight years in office.

Under his 2002-2010 presidency, Lula slashed Brazil's hunger rate by half and lifted more than 20 million Brazilians out of extreme poverty.

Under Lula's Zero Hunger programme, which became the centrepiece of his government, around 47 million children received free school meals by 2010, with some 30 percent of the food supplied from local farms and small farmers. The initiative helped cut child malnutrition rates by 70 percent from 2003 to 2009.

Lula's emphasis on getting local and central government bodies, along with the private sector and civil society groups to work together in tackling hunger is considered a winning strategy for other countries to follow.

During Lula's presidency, some 12 million poor families received monthly cash payments in exchange for sending their children to school or for health check-ups. It meant mothers could spend more money on food for their children.

The cash-transfer programme, known as the Bolsa Familia, is seen as an exemplary model worldwide and has been adopted by numerous countries in Latin America and elsewhere.

Howard Buffett

American philanthropist



Over the past decade, Howard Buffett, the son of U.S. billionaire businessman Warren Buffett, has quietly become a major player in the fight against global hunger.

Through his Howard Buffett Foundation, the unassuming soybean and corn farmer from Illinois has poured tens of millions of dollars into food projects.

The Foundation has also funded research to develop a disease-resistant sweet potato, given money to improve irrigation for farmers in Afghanistan and to help farmers in Africa and Central America increase crop yields.

Buffett has also helped to link nearly 50,000 farmers with the United Nations' World Food Programme, a major buyer of food.

The globe-trotting philanthropist has recently put the spotlight on rising levels of hunger in the United States. Despite the country being the leading soybean producer and one of the world's major wheat producers, one-sixth of Americans are hungry - an issue Buffett has described as "nothing short of a scandal".

Ester Jerome Mtegule

Tanzanian farming community leader



If women farmers worldwide were given better access to seeds, small loans, land and other resources, the number of people going hungry in the world could be reduced by up to 150 million people, the U.N. World Food Programme estimates.

That's why female farmers who teach others in their communities about innovative farming methods, how to improve harvests and raise livestock, are pivotal in ensuring families have enough food to eat.

One such leader is 32-year-old Ester Jerome from central Tanzania.

In a recent competition run by the charity Oxfam to showcase female farmers, Jerome won first prize from a field of 7,000 nominations put forward by fellow herders and smallholder farmers in the east African country.

In Tanzania's semi-arid Dodoma region, Jerome grows sunflowers, ground nuts and millet. She has also boosted her yields of sorghum from five to 75 bags a year, which has helped feed her village.

She put the increase down to planting a red-seeded sorghum, which is drought resistant, rather than the traditionally grown white seeded-sorghum.

It's a practice Jerome is encouraging other farmers to adopt.

"Unfortunately, there is a deep-rooted belief in our community that red sorghum is meant for poor people. Thus, many villagers prefer growing maize or white sorghum instead of the red one," she said in emailed responses to AlertNet's questions. "In the end, the majority will harvest less food or nothing as the area receives little rain ... that's where I come in."

Women in Tanzania, like in many African countries, make up around 70 percent of all the country's smallholder farmers. But few own farmland.

"Although women are the main producers, they still don't have an opportunity to own land," says Jerome, who has five children and who also cares for her HIV-infected mother. "Land ownership would enable me to be free and use more land for production."

[Svetlana Maksimova](#)

Russian farmers union leader



As a milk and vegetable farmer, Svetlana Maksimova knows firsthand about the challenges facing fellow farmers living around the Russian city of Tver, 250 km northwest of Moscow.

"The issue is that farmers have no access to markets as it's controlled by big companies," Maksimova said.

To tackle the problem, Maksimova has set up special distribution centres, making it easier and cheaper for farmers to get their produce to customers.

She has also organised local food fairs where farmers can showcase their organic produce such as potatoes, cabbages and apples, as well as more informal food markets with farmers selling vegetables from their car boots.

Amid the economic and political turmoil that followed the collapse of the Soviet Union, Maksimova managed to build a milk and vegetable farm in 1997.

She then formed a union of 500 local smallholder farmers, based on her belief that if farmers work together they can achieve better results and yield more influence.

Last year, the farmers union nominated Maksimova to run for political office and she became an elected official in the Russian parliament, from where she continues to lobby for the rights of small farmers in the Tver region.

Maksimova's daughter is following her mother's footsteps and has taken over the running of the family farm.

Edward Mukiibi

Ugandan school gardener



Edward Mukiibi remembers the punishment dished out by teachers in his native Uganda when, as a boy, he and other classmates either turned up late and or spoke in a language other than English.

"We were told to cut down the bush. It would grow back and children would cut the bush down again. We were not planting or growing anything," Mukiibi recalled.

It's a practice Mukiibi, 26, believes has led young Ugandans to shun agriculture.

"The problem of schools using farming as a punishment is driving young people away from farming and creating a stigma about farming. Food cultivation is seen by young people as the last resort," Mukiibi told AlertNet.

His childhood experience prompted him to change negative attitudes towards farming in Uganda where 85 percent of the population depend on agriculture for their livelihoods.

In 2006, after meetings with school children, teachers and parents, Mukiibi set up the country's first vegetable garden in a primary school in Uganda's central Mukono district.

He showed children how to care for their garden and learn how to grow and cook local food crops, including African egg plant, amaranth, sukumawiki, while raising awareness about nutrition, soil erosion and the importance of using water efficiently.

Today, thanks to Mukiibi's work, Uganda has 13 school food gardens, ranging from 0.5 to 1.5 hectares, in state and private schools across the country. Fresh produce from the gardens is used in school meals or sold at local markets.

Mukiibi says his dream is to spread school gardens to "every farming country in Africa and then the rest of the world".

"Young people everywhere should be shown how best to sustain themselves and make good food choices," he said. "I tell young people we have to feed ourselves and learn how to grow our own food. If we don't, nobody else will do it for us."

[Reema Nanavaty](#)

Pioneering women's union leader



For hundreds of thousands of poor women farmers in India, Reema Nanavaty is considered a saviour.

As head of the largest union of informal sector workers in India, Nanavaty helps the union's 243,000 women farmers to get fair prices for their produce, access markets and small loans, and grow enough food to feed themselves and their families.

Under Reema's leadership over the last decade, the Self-Employed Women's Association (SEWA) has grown to 1.3 million members, including small farmers, forest workers, salt farmers, artisans, and entrepreneurs.

Going from village to village, district to district across India, Reema has spent more than 10 years building up small farmer cooperative networks, 2,100 self-help groups, banks, and training centres.

"Our experience shows that organising women is key," Nanavaty told AlertNet. "Once a woman belongs to an organisation she feels she's not alone. She feels less vulnerable. She is able to speak up, able to demand and this brings her self-respect and builds confidence."

Perhaps more importantly, farming cooperatives give smallholder farmers greater bargaining power when dealing with major buyers of spices, soya and oil and sesame seeds.

"The most important need is to access markets for our female farmers. We facilitate partnerships with multinationals so that they buy directly from our farmer networks," she said.

Founded in 1972, SEWA also provides micro-credit through its own women's bank and insurance policies, while women can learn about new farming practices and improve their reading and writing skills at its training centres.

Photo credit for Reema Navavaty: UUAInternational Office