# Making food available

Backing sustainable rural development especially in times of economic crisis, Europe remains firmly committed to the plight of one billion people who go to bed hungry every night.





### Technology for Myanmar's poorest

#### 4 MILE, Maungdaw Township, Myanmar

"We hardly have any expenditures on fire wood anymore," says U Kyaw Sein Aung. Since the installation of a small biogas plant in his house, this farmer covers almost 90 percent of his fuel needs with biogas.

Between March and April 2009, 75 similar plants have been built in Northern Rakhine State, where U Kyaw Sein Aung lives, part of a European Union-funded FAO initiative, employing modern technology to stem the depletion of the area's forest resources by developing alternative fuels for the growing population that uses more and more forest wood.

"The integration of new technologies into farmers' social systems is of paramount importance in predominantly agricultural economies such as Myanmar's," said Shin Imai, the FAO Representative in the country, stressing that providing technology is one of the pillars of FAO's activities funded by the EU in 2008–2010 in support of Myanmar's neediest farmers.

According to Bir Mandal, FAO's chief technical advisor in Myanmar, local authorities, inspired by the success of the biogas plants, have decided to install another 40 in Rakhine state. And, says U Kyaw Sein Aung, they offer more than fuel: "We use biogas residues as fertilizer, and above all my children are very happy to study under biogas light."

# "My children are very happy to study under biogas light."

U Kyaw Sein Aung, Farmer

Increasing vegetable production is another major concern. In Myanmar, people have less than half of the recommended intake of 300 grams of vegetables per day. The adoption by the authorities, the EU, FAO and civil society partners, of an action plan for upgrading technical knowledge and skills for fresh vegetable production in December 2008, was an important step forward.



### Africa: ally against climate change

#### ACCRA, Ghana

"Agriculture must play a central role in reducing Africa's carbon emissions," Maria Helena Semedo, FAO Deputy Regional Representative for Africa, told the opening of the CarboAfrica conference in November 2008.

Over 100 participants from the international scientific community, governments and the United Nations flocked to the Ghanaian capital to discuss the preliminary results of research led by CarboAfrica, a consortium of 15 institutions from Africa and Europe, including FAO, set up in 2006 with €2.8 million from the European Commission.

Sub-Saharan Africa's role in the global climate system has been little studied. In the context of climate change and the Kyoto Protocol, the 1997 international treaty aimed at reducing greenhouse gas emissions, CarboAfrica attempts to provide scientific evidence to underpin policy in resource management and participation in carbon credit markets.

CarboAfrica has studied wild fires in South Africa's Kruger Park, carbon dioxide flows in the forests of Ghana and weather patterns in Sudan. The research indicates that, as opposed to its minor part in global greenhouse gas emissions from fossil fuels – less than four percent of the world's total – Africa makes a major contribution to seasonal and annual changes in global greenhouse gas emissions from natural sources.

### "Agriculture must play a central role in reducing Africa's carbon emissions."

Maria Helena Semedo, FAO Deputy Regional Representative for Africa

More important are results on Africa's "carbon cycle", the balance between carbon captured through photosynthesis by the continent's vast forests and savannas, and carbon released into the atmosphere as a result of fires, deforestation and forest degradation. So far, evidence shows that Africa takes more carbon out of the atmosphere then it releases. If confirmed, this implies that it contributes to reducing the greenhouse effect.

In underscoring agriculture's crucial role, Maria Helena Semedo pointed at the responsibilities of the international community: "We should reach out to farmers in Africa, developing capacities for better land use and forest management in such a way that Africa's carbon cycle becomes our ally in the battle against climate change."

FAO lends its expertise in remote sensing and mapping to CarboAfrica through its Global Terrestrial Observing System programme as well as coordinating communication and capacity building among other things.



### Cassava's comeback

#### CIBITOKE, Burundi

**After years of** massive crop losses caused by a devastating virus, farmers were harvesting healthy cassava – one of Africa's principal food stuffs – throughout Africa's Great Lakes region in the fall of 2008.

Harvesting became possible after virus-free planting material was distributed to some 330 000 smallholders in countries struck by the virus – Burundi, the Democratic Republic of Congo, Rwanda and Uganda. The improved crop now benefits a total of some 1.65 million people.

"We have come a long way in making this region selfsufficient in cassava again," says Cees Wittebrood of the European Commission's Humanitarian Aid department (ECHO).

Each person in Africa eats around 80 kg of cassava per year. So, when an aggressive strain of a virus called Cassava Mosaic Disease decimated harvests throughout the Great Lakes region, consequences were disastrous.

FAO embarked on a campaign to boost the capacity of individual countries in the region, launching a regional initiative in 2006 with funding of several donors led by ECHO, which has since contributed 3.3 million to FAO's different cassava operations.

Burundi's northern Cibitoke province lies in the epicentre of the cassava virus epidemic. Its fields, barren until a year ago,

#### "It's sweet, not bitter."

Ernest Nduwimana, Farmer extols his new cassava variety

now glow with green cassava leaves. "It's sweet, not bitter," says Ernest Nduwimana, a young farmer holding up a huge cassava root he has just unearthed.

The crop was good this year, Ernest says. There is enough to feed his family until the next harvest, which he is already preparing to plant with quality cuttings from his own cassava plants. Then, after a long day, he returns home, where his mother has prepared bugari, a local dish based on cassava flour and served with beans and fish.



### Keeping tabs on soaring prices

#### YEREVAN, Armenia

**This small country** in the Caucasus saw food and fuel prices soar in 2007–2008. The government tried to protect the most vulnerable people by raising the minimum wage, pensions and social assistance.

How did they know how much to increase the payments? This is where accurate, timely and easy-to-use statistics are critical. The Armenian National Statistical Service monitors the cost of 200 food items all over the country every 10 days. The ministry of agriculture and the metrological service also collect data on food production and the weather. Together all the data paint a picture of the country's situation and help the government make important policy decisions.

To manage this wealth of data from different sources, the Armenian government has been using an information management system provided by FAO since 2006 called the Global Information and Early Warning System (GIEWS) workstation. It has been developed under the EC-funded EC-FAO Food Security Information for Action Programme, aimed at increasing countries' capacities to generate food security information and analysis crucial for anti-hunger policies.

Workstations in different Armenian ministries and abroad are hooked up so statisticians, analysts and policy makers can work

## "We can get access to more information." Anahit Avetisyan

Armenia's food security statistics chief praises new technology

together and share their information.

"It cuts time and we can get access to more information," says Anahit Avetisyan, Chief of the Food Security Statistics Division, at the National Statistical Service in the capital Yerevan. "It updates information very quickly and is easy to work with."

Ms Avetisyan says her division is waiting eagerly for the next version of the software so they can improve their service.

The new version provides much more data not only from FAO, but from the International Monetary Fund, the World Health Organization and World Bank, including such important collections as the World Development Indicators and Household Budget Surveys.



### Dealing with drought

#### AFKABA, Kenya

**One early morning,** Thalasso Badage, a young Gabbra woman, is fastening two containers on the back of a crouching camel. Once the load is fixed, the camel rises and joins a departing caravan.

On the plain leading to the rain basin at the foot of the mountain of Afkaba, it's hard to imagine how this terrain of dark volcanic rocks interspersed with scant grass can be used for grazing.

Although the Gabbra, camel herders from the dry north of Kenya, have adapted to their harsh environment, the pressure on their way of life is mounting. Population growth and conflicts over limited resources have made them ever more susceptible to shocks like soaring food prices. In early 2009, the United Nations warned that 20 million people are in need of emergency assistance in the Horn of Africa

"We strive to make water available where there was no water before," says Lammert Zwaagstra of the European Commission's Humanitarian Aid department (ECHO), leading EU efforts to help pastoral communities in Djibouti, Ethiopia, Kenya, Somalia and Uganda lessen the impact of failing rains.

Working with FAO and non-governmental organizations, ECHO in 2006 funded a project called Regional Drought

#### "We strive to make water available."

Lammert Zwaagstra, European Commission

Decision, a three-year €40 million programme focused on water management, livestock and conflict prevention.

Meanwhile, daily life in the pastoralist groups revolves around the search for water and pasturage. Thalasso Badage descends into a rocky gorge. Behind a stone dam, water appears, giving this place hidden in the midst of the surrounding dryness a magical aura. ECHO assisted in installing a pipe to bring water down the gorge. Now Thalasso fills up her containers at a tap. Further down, the pipe leads to a trough for watering livestock.

The containers filled, Thalasso is about to return. She would rather stay at home, she says. It's tiring to load the animals and to walk down and back again. But, she knows there is no choice. "In this environment, the pastoralist life is the only viable way."



### Bringing back basic farming skills

#### RAMVIJA, Burundi

**Scores of farmers** have come to help Sylvestre Bucumi to dig ditches on his field in southern Burundi's Ramvija district, where he plants banana, maize and beans.

This is a collective effort, he says, explaining that together the farmers also take care of the fields of all the others. "Even our president has said: 'It is time to work together.'"

The farmers dig these transversal ditches to trap highly fertile topsoil that could otherwise be washed away by rain. "It is a way to preserve the little bit of fertilizer we have," says Cassien Nsanzurwimo, who leads their work.

Nsanzurwimo graduated from a nation-wide training programme for extension workers. In 2006, the Burundian government hired 2 803 extensionists, one for each colline or hillside, the country's smallest administrative unit. With 1.5 million in funding from the European Union, FAO helped to train these new extension workers.

During a course in the southern city of Makamba, trainer Elie Gikoro discusses plant diseases. For each crop he explains which diseases can occur, what their symptoms are and how to deal with them. "To increase agricultural production in Burundi," he says, "it is fundamental that we strengthen the capacities of our farmers."

### "It is fundamental that we strengthen the capacities of our farmers."

Elie Gikoro, Trainer

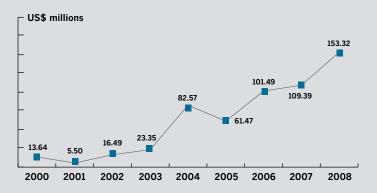
Although there are only six women among the 139 students in Makamba, Godeliève Niterika doesn't see why there shouldn't be more. "A farmer who understands a male extension worker can also understand a woman," she argues.

It is an important job, she thinks. "You can teach farmers so many things. Not only how to combat diseases, but also how to use fertilizer, or how to grow," she says. But first you need training, she adds. "Because you cannot give what you don't have."

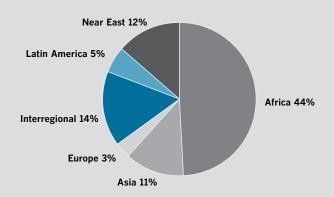
#### FAO AND EU: UNLOCKING RURAL POTENTIAL

The European Union is one of FAO's most steadfast and generous partners in promoting sustainable rural development to improve the lives of the poor. Working together on the ground in developing countries worldwide, improving food security in emergencies, employing research to foster food safety and quality, stimulating information-gathering to build policy, sharing know-how and involving partners in policy-making, the EU and FAO fight poverty at its root.

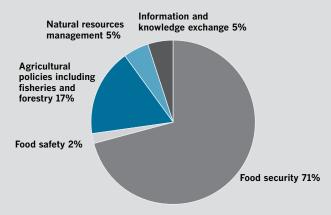
### EU contributions to FAO activities in the field including emergencies (2000-2008)



### FAO-EU cooperation by number of projects and region including emergencies (2007)



#### FAO-EU cooperation by value and theme (2008)



### For more information, contact:

Field Programme Development Service
Technical Cooperation Department
Food and Agriculture Organization of the United Nations

Viale delle Terme di Caracalla 00153 Rome, Italy Telephone: +39 06 5705 2252

Fax: +39 06 5705 6885 E-mail: TCAP-Chief@fao.org

#### www.fao.org/europeanunion





www.europa.eu

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