Biovision

Newsletter August 2014

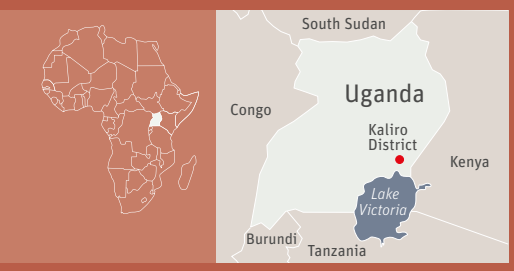
Uganda
The country needs trees!

New trees for Kaliro

Forests are still being destroyed in the Kaliro District of Uganda – to the detriment of both humans and the environment. With its reforestation project, Biovision is supporting the Ugandan Development Plan to restore forest cover to 1900 levels.

Antonia Nyamukuru
Project Coordinator in Kaliro, Uganda

"The project is very important because people in Kaliro depend directly on natural resources".



Project: Reforestation in Kaliro District

- **Start date January 2014**

Using agroforestry systems, the project seeks to increase the supply of fruit trees, firewood and timber available to local communities, create opportunities for income-generation and improve the health of the environment.

- **Goal for 2014**
  – Train 100 people from four farmer groups in the cultivation of tree seedlings, including the correct way to plant and care for them.

- **Budget**
  CHF 15 000
- **Total Budget Uganda 2014**
  CHF 115 500

- **Account for donations**
  PC 87-193093-4

The view is idyllic: small farmsteads nestle in a vast African vista of fields, meadows and trees and in the distance Lake Nakuwa. However, the idyll is deceptive. Kaliro District in Eastern Uganda is one of the country's poorest regions. The climate is hot and dry and the soils are poor. Four-fifths of the population are subsistence farmers. From their barren soils, they harvest sweet potatoes, maize, millet, cassava, peanuts or mangos and oranges. They need to produce enough to survive, but sometimes they can't. "If the weather is bad, we don't have enough to eat," says Naphtali Mpira, father of eight from Gadumire (see also Page 7).

Life in Kaliro was never simple, but in recent years it has become even more difficult. In addition, if we fail to treat the forests with care, the situation will be even worse for future generations. "When I was young, we had many more trees," remembers Naphtali. They provided shade, protected the soil and produced humus and firewood. Forests continue to disappear because the sale of timber is one of the few income-generating opportunities available to the ever increasing population.

Dr. John Tabuti, Professor of Agriculture and Environmental Sciences at the University of Makerere in Kampala has observed this ominous development with increasing concern.

Tabuti grew up in Kaliro and has personal experience of the practical problems experienced by the local people. A few years ago, he and his parents planted a tree nursery on their land so that they could grow a range of trees for fruit and timber. The system – known as agroforestry – provides them with an additional source of income und makes a contribution to the reforestation of the region. "Agroforestry" is the mixed use of land for trees and arable crops with each being beneficial to the other. Father and son decided to offer communities in Kaliro the opportunity to adopt this successful model. On behalf of the Ugandan NGO "Sustainable Use of Plant Diversity" (SUPD), Tabuti submitted a convincing proposal to Biovision and after careful investigation, the project was given the go-ahead.

Tabuti provided a viable structure for the project and also obtained the support of local authorities. In Antonia Nyamukuru – a committed environmental scientist – he found a capable project coordinator.

Since it started in January 2014, the project has already established two tree nurseries. It has set up two groups, each with 25 people from Kaliro interested in the project and ran its first training sessions. Naphtali Mpira and his wife Margret Nakisige are members of one of these groups. They want to grow oranges, mangos, passion fruit and avocados and also produce seedlings, firewood and timber for sale. In addition, they are planning to use the leaves of the trees to produce compost and improve the soil. "I reckon that by the end of the year I shall be selling my first seedlings and so earning an income," says Naphtali confidently.

For more information see:
www.biovision.ch/Kaliro

Kaliro District with Lake Nakuwa in Eastern Uganda.

Trees are being lost in Kaliro because of the growing demand for arable land. Now the local people want to reverse this trend by planting trees.

Comment

Uganda is one of the few developing countries likely to achieve the Millennium Development Goal of reducing poverty by half by 2015. The main reason for this is that Uganda has increased its annual economic growth of 7%. Despite that, 27% of Uganda's rural population, who make up four-fifths of its total population, live below the poverty level. Moreover, agriculture employs 73% of the entire workforce. If development is to be sustainable and poverty reduced further, the environment and natural resources must be used with care.

During site visits in Uganda, I was regularly confronted with the same scenario; a decline in agricultural production in many regions, combined with increases in population. Forests are being cleared in order to increase the land available for arable crops and so increase food production. Non-sustainable methods of cultivation are depleting the soils.

In Uganda, Biovision is committed to sustainable solutions that improve the living conditions of small farmers whilst simultaneously protecting the environment. This approach demonstrates that an intact environment is a pre-requisite if we are to achieve sustainable reductions in poverty.

Anna Schuler
Project Coordinator Uganda
Biovision Foundation

As in Kaliro (Uganda), the harvesting of wood for fuel or timber and the creation of arable land are the primary reasons for the rapid decline in tree cover in many parts of Africa – often with a significant impact on precipitation.

Trees are rainmakers

The phenomenon occurs equally in Kenya, Tanzania and Uganda – during the course of many Biovision projects in East Africa, the local small farmers have observed an identical phenomenon: a lack of rain as a result of deforestation. Is this just a subjective perception or is it an objective reality? **Andreas Sicks**

It is something that farmers in various parts of East Africa have observed from personal experience. In addition, the same issue has occupied the minds of experts as part of the ongoing global discussions on climate change. It is an undisputed fact that major forests and in particular the tropical rainforests play an important role in the structure of global climate. Of particular relevance in this respect is the global water cycle. Water evaporates, condenses, forms clouds and eventually falls back to Earth as precipitation. On average some 90% of the moisture in the atmosphere comes from water that has evaporated from our oceans and other surface water. The remaining 10% comes from the process of plant transpiration on land.

In essence, a distinction is made between the small and the large water cycles.

Large water cycle

The large water cycle is driven by the global circulation of wind systems: the cycle starts over the oceans where water evaporates in large quantities. This damp air is transported by wind onto land where it forms clouds and then falls as precipitation. The water is then returned to oceans by rivers. Some of the precipitation remains on land and is fed into the small water cycle and transported to areas further away from the coast.

Small water cycle – the role of the "perspiring" forest giants

In the tropics, the sun is almost directly overhead and releases truly enormous quantities of energy. The roots of the giant trees in the forests absorb water in the soil and transport it into the lofty heights of the forest canopy. The trees then release the water through pores in their leaves and the water then evaporates. Eventually, clouds are formed and it starts to rain. Some of this rain is intercepted by the canopy where it re-evaporates relatively quickly. The rest ends up in the soil and the trees then re-absorb the water through their roots and the cycle begins all over again.

This process can be likened to the sweat produced by humans when the weather is hot. Sweat cools the skin and protects the

body from overheating. Trees do likewise; the water evaporating through the leaves (known as transpiration) protects the trees from overheating under the strong sun. To a certain extent, it is this process of transpiration that drives the small water cycle in tropical regions.

The rainforests of the Amazon Basin provide the most reliable estimate of the magnitude of the two water cycles:

The Amazon rainforests make as much as 75% of their own rainfall. The rest, i.e. just 25%, is supplied by the Atlantic Ocean via the large water cycle. That is roughly the same quantity as that transported by the Amazon River. In other words, in terms of pure quantity the small water cycle circulates much more water than the large water cycle. Admittedly the latter has to cover a much greater distance.

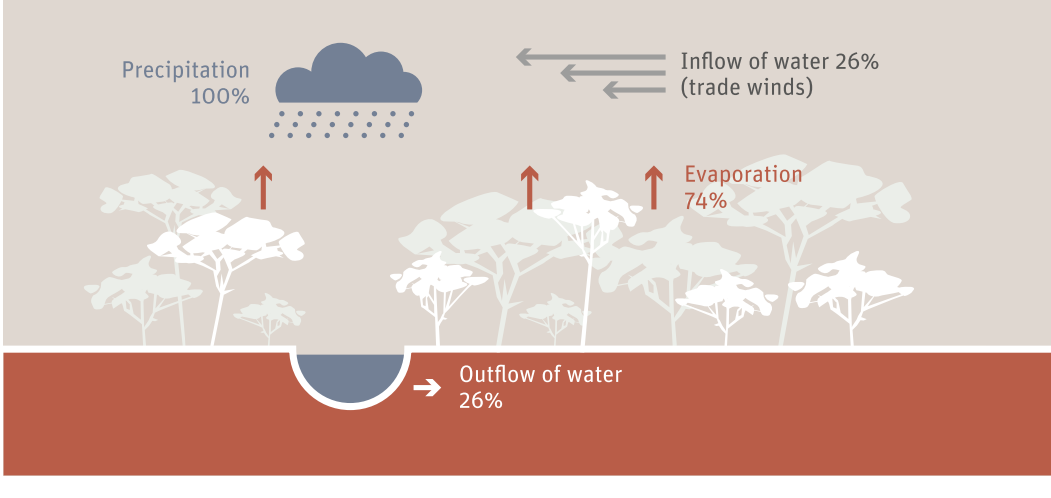
More trees – more rain clouds

Basically, the circulation of water in the small water cycle only functions if there is sufficient forest cover and in particular if the forest cover is sufficiently contiguous. This forest cover stores the moisture, reduces the surface outflow of water and ensures that the forests have enough water available for transpiration.

The process of transpiration by trees and the lower build-up of heat in the soil mean that the atmosphere above the forest is cooler than above surrounding areas. Transpiration produces a thermal of rising air. When this rising mass of air meets the air being transported by the wind the latter is forced to rise and so cools. This causes clouds to form and because the temperature higher up is continuing to cool, water condenses more above forested areas than above non-forested areas. This in turn triggers local showers.

Apart from the rain triggered by the higher incidence of forest cover in the so-called small water cycle, it is probably these local showers that are the actual basis of the subjective perception of farmers.

Andreas Sicks is Head of Programme and Partnerships at Biovision in Zurich



Small water cycle: The Kakamega Forest is the last remaining rainforest in Kenya and its “perspiring” trees make some of their rain themselves.

Small water cycle

The local university will run the organic farming course in future

Doreen Nampamya is a student at the Makerere University in Uganda. She is doing a BSc. in Agricultural Land Use and Management and hopes one day to run her own farm and train other farmers. Last summer, along with some 40 other East African students, she attended the three-week course in organic farming (International Training Course for Organic Agriculture – ITCOA) in Uganda. It gave her the opportunity to find out about the organic alternatives to conventional methods of agriculture.

ITCOA fills a gap in the range of courses on offer at East African universities. It is an annual course and this year is its final year under the auspices of BOKU, the University of Natural Resources and Life Sciences in Vienna. From 2015, the Makerere University will run ITCOA. Two workshops have already been held to discuss the future of the course. These preparations are designed to bring about a seamless transfer to the local university. To ensure that ITCOA is sustainable in the longer term, it is planned to integrate the course into local structures so that issues relating to organic farming are embedded in the universities of East Africa and in the minds of future decision makers.

Doreen Nampamya,
Doreen Nampamya, student on the ITCOA 2013 course

"It's important to be a good role model for organic farming." Yusef Lugendo from Kiteredde in Uganda in his garden (above) and at a farmer training course (below, 2nd from right)

Training for 800 farmers

On Yusef Lugendo's farm, poverty is starkingly obvious. But there still is an air of contentedness about. The lovingly tended garden and Yusef's positive attitude imply that things are getting better and that the family's future looks brighter.

Yusef does a round of the garden walking hand in hand with his son Wandera. He shows him the plants and explains how to look after them.

"It's important to be a good role model for organic farming," says the father. "Not just for my children but also for my neighbours." The latter like to drop in and ask for advice or buy firewood. Of the latter, Mr. Lugendo has more than he needs. He harvests the wood from trees that he planted many years ago as a windbreak and for wood. The trees now provide him with timber, mulch, herbal remedies and fruit.

Yusef Lugendo is Chairman of a group of farmers made up of 29 women and 16 men supported by the Rural Women Development Association (RDWA). Thanks to an annual grant from Biovision of some CHF 20,000, this local NGO has provided support and training in organic farming to a total of 800 small farmers in 20 different groups. "I used to be a coffee grower," explains Yusef. "I often applied chemicals. That was very expensive and also dangerous." He often suffered from skin problems. Nowadays he does without artificial pesticides and fertilisers. Instead, he produces his own compost, liquid fertiliser and biological pesticide, which he makes by mixing various plants with urine – successfully as he is keen to stress.

In the next few years, the project will concentrate on training farmers in organic farming methods and improving access to markets for their products.

“Our children should not make the same mistakes”

A story from the life of Naphtali Mpira and Margret Nakisige from Gadumire in Uganda

“I must find a way to earn more money. I need to feed my children and give them a good education,” says 55-year old Naphtali Mpira. “They should not have to face the same challenges that we did.” The need to which he is referring is that of supporting the eight members of his family. If he were still young, he would be discussing family planning with his wife, but now they both discuss birth control with their children; he with the boys and she with the girls. “The younger generation is receptive to what we say,” says Naphtali. “After all, they remember the daily struggle to survive from their own lives. They can see that the supply of land is decreasing whilst at the same time the population is increasing.”

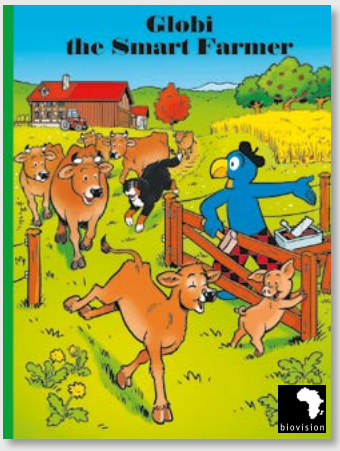
Income, timber and food

Naphtali Mpria and his wife Margret Nakisige see the Biovision reforestation project as an opportunity for a better future. In particular, they want to earn money from fruit and timber. However, they also want to improve their own diet, produce firewood and make a contribution towards protecting the environment. “It’s important that we retain natural resources for our children,” says Margret Nakisige.

The catalyst for the couple’s participation in the project was a visit to a tree nursery set up by Emanuel and Frieda Mpira (see Page 2). They were impressed by the abundant harvests of delicious bananas, oranges, mangos, avocados and papayas from their agro-forestry garden. After much discussion, they decided to join the project group and take part in the setting up of a tree nursery. They were trained in how to identify the right soil mix for the various tree species, how to grow trees from seed and produce seedlings. The next stage will be to find the right location for the seedlings and plant them out. “We have to be patient,” says Naphtali Mpira, “Trees need time to grow.” However, he is convinced that the project will be successful. “As part of the Biovision project, we will also learn how to improve individual species. This will open up a valuable market for us as these improved varieties are in high demand.” In time, that could reap a double dividend: the more seedlings Naphtali and Margret sell the higher their income and the more trees that will be planted in Kaliro.

For more photos see:
www.biovision/naphtali

"Globi, the smart farmer", the book co-produced by Biovision is now available from more than 100 selected claro shops, a Swiss chain commited to fair trade. "Organic agriculture is an important issue for us," says Marie-Claire Pellerin, Managing Director of claro fair trade. "We welcome the opportunity to help Biovision with the book launch." claro promotes organic farming and its many product ranges include coffee from Ethiopia and Tanzania as well as mangos from Burkina Faso.



Imprint

Newsletter 31, August 2014 © Biovision Foundation, Zurich

Published by
Biovision, Foundation for ecological development, Schaffhauserstrasse 18, 8006 Zurich

Editor
Peter Lüthi

Text
Peter Lüthi, David Fritz, Anna Schuler, Andreas Sicks, Samuel Trachsel, Sabine Lerch

Languages
This Newsletter is available in German, French and English

Translations
Sue Coles (English)
Daniel Wermus (French)

Cover photo
Gadumire Town in Kaliro District, Uganda
Photo: Peter Lüthi/Biovision

Other photos
Peter Lüthi/Biovision, Anna Schuler/Biovision (Page 6, left)
Samuel Trachsel/Biovision (Page 8 top right)

Design
Binkert Partner, Zurich

Journalistic control
Andreas Schriber

Printing
Koprint Alpnach AG, Alpnach

Paper quality
Cyclus Offset (100% recycled)

The Biovision Newsletter is published 5 times per year and is available on subscription in return for a minimum donation of 5 CHF.

Margarine consists of palm oil, which is produced at the cost of huge areas of tropical rainforest. This context is made clear at the CLEVER till.

Buy "Clever" in Solothurn

CLEVER, the Biovision exhibition promoting fair and sustainable consumption can be experienced from 27 August to 25 September at Kreuzackerplatz in Solothurn. Come along and test your purchasing decisions! The exhibition contains more than 100 products, each rated on the basis of six sustainability criteria: Impact on climate, pollution, livelihoods, social responsibility, biodiversity and use of resources. On arrival at the cash desk, visitors are given a personal receipt for their purchases in form of a spider chart documenting whether their purchases are good or not so good. Guides on buying individual foods together with information on products with Swiss quality certification can be found on our website **www.clever-konsumieren.ch**, either as a download or link.

On her bike – Active for Biovision

Barbara Skupienski, a 57-year old from Wallis, is currently cycling to the Mediterranean. She sees her 800 km trip along the River Rhône as both a physical challenge and an opportunity to spread a message as she puts it "that serves humans and the environment". She registered her plan on www.getactive.ch with the aim of using her trip to motivate as many people as possible to support the camel project in Kenya with a donation. You can follow her progress at www.getactive.ch; read the reports of her inspiring trip and help Barbara Skupienski reach her goal! Many thanks.

Foundation for ecological development
Fondation pour un développement écologique
Stiftung für ökologische Entwicklung

Schaffhauserstrasse 18, 8006 Zurich, Phone +41 44 341 97 19
info@biovision.ch, www.biovision.ch

biovision