

# BIOVISION

Newsletter Nr. 19

## CLIMATE CHANGE IN AFRICA

A Race Against Time  
Page 2

[www.biovision.ch/klimawandel](http://www.biovision.ch/klimawandel)

A future for all, naturally

Garden of Solidarity in Tanzania | **Page 4**

Pest Control by SMS | **Page 5**

Benefit Concert with Sol Gabetta | **Page 8**



Time is money: The World Bank estimates that adaptation to climate change in developing countries costs around 75 to 100 billion US dollars every year. This expenditure makes up approximately the annual total of development aid worldwide. Time is money: The World Bank estimates that adaptation to climate change in developing countries costs around 75 to 100 billion US dollars every year. This expenditure makes up approximately the annual total of development aid worldwide. Picture:: Biovision/Peter Lüthi



# A RACE AGAINST TIME

Dramatic climate change in Africa

**Global warming is hitting Africa full force. To mitigate the foreseeable effects for humans and the environment, preventative measures and adaptations such as improved soil protection must urgently be put in place.** By Beat Jordi

The Intergovernmental Panel on Climate Change (IPCC), commissioned by the UNO, painted a grim picture of Africa's future in its most recent report from 2007. Today around 300 million people, or one third of the continent's population, live in drought-prone areas. Living conditions are particularly precarious in the Sahel area, in southern Africa and at the Horn of Africa, where periods of prolonged drought have increased dramatically since 1960. According to the IPCC experts, in a worst case scenario crop yields from agriculture dependent on rainfall in countries particularly affected by drought could sink a further 50% by 2020. Significant causes of this increased desiccation of the land are advancing deforestation, regular overuse of the soil through farming, an increase in temperature as a result of the greenhouse effect caused by man, and a decrease in rainfall. The expansion of arid and semi-arid zones compromises the food supply of millions of people, endangering their hitherto existing living space. According to the IPCC report, the number of people with insufficient access to water as a result of rapid climate change could grow to 600 million by 2080.

#### **It affects the poor most of all**

"The results of global warming disproportionately affect the world's poor", states UN Secretary General Ban Ki-Moon. On one hand their direct dependency on agriculture increases their vulnerability to unfavourable weather conditions. And on the other hand most developing countries do not have the means to protect their people sufficiently from the effects of extreme weather like droughts, storms and floods. The UN High Commissioner for Refugees (UNHCR) has in any event come to the conclusion that climate change is already undermining the elementary foundations of survival for many inhabitants of the Third World. And the occurrence of larger 'natural disasters' has doubled worldwide since the 1980s. 90% of 400 natural events every year are climate-related. In 2008 alone, 20 million climate refugees left their native areas – many of them in Africa. These migratory movements often lead to social tension and conflict.



# TIME

## A LONG BRAKING DISTANCE

The UN Climate Convention of 1992 advocated the stabilisation of the concentration of greenhouse gases in the Earth's atmosphere to level that would prevent dangerous disturbance to the climate system. An increase in temperature of more than 2° Celsius would overwhelm the adaptive capabilities of many ecosystems and greatly decimate the biodiversity, water balance and soil fertility in some areas. In order that we may still avoid this, greenhouse gas emissions must fall 70% by 2050 – and this in fact in comparison to 1990 levels. The braking distance is certainly long, since even after three decades the first climate conference's interim goal of stabilisation has not been achieved.

### Adaptation to a warmer climate is vital

Even if the community of states were to succeed in considerably reducing annual greenhouse gas emissions of around 50 billion tons of carbon dioxide (CO<sub>2</sub>), Africa would still have to adjust to further increases in temperature in the coming decades. The climate system reacts very slowly to change because of the length of time heat-insulating gases are retained in the atmosphere. Because of this, average global temperature has increased by 0.7° Celsius since 1900, and a further increase of 0.6° is certain because of gases emitted up to now. In the best instance, the temperature increase would be limited to 2 degrees, whereupon African countries would tend to be affected by a steep rise in temperature. In a new study, the World Bank has calculated an annual cost of 75 to 100 billion US dollars for all developing countries to lessen the vulnerability of ecosystems and their populations to the worst effects of climate change.

### The key role of agriculture

Against this background, the promotion of sustainable agriculture which is adapted to local conditions, based on ecological principles and which serves food sovereignty arises in a key role. In the face of today's problems, the idea of industrial food production using large amounts of foreign energy and chemicals is no longer viable, warned the IAASTD report of UNESCO in April 2008, which was generated under the leadership of Biovision Foundation President of the Board, Hans R. Herren and Judi Wakhungu. Conventional intensive farming accounts for almost one quarter of CO<sub>2</sub> emissions caused by man. It is also responsible

## SWITZERLAND DOES NOT DO ENOUGH

The Kyoto Protocol obliges Switzerland to reduce its level of greenhouse gas emission as it was mid-2008 by 8% by 2012, compared to the level in 1990. The Federation reaches this goal just by using two permissible tricks. Since national emissions have not increased much, this is offset against the CO<sub>2</sub> absorption of the forest and additional climate certificates are bought in from abroad. In order to fulfil the follow-up regulation currently being negotiated in Copenhagen, greater effort is needed here at home. The Swiss government has declared that it will reduce its emissions from 20 to 30 percent by 2020, in line with the EU: A truly remote goal.

for 50% of methane emissions. Organic agriculture as promoted by Biovision stands in opposition to this, having beneficial effects for soil fertility and humus content of arable land. By using the compost of crop residues, soil can absorb more carbon dioxide, retain and maintain moisture for longer and make greater yields possible in times of drought.

Beat Jordi is a freelance journalist in Biel

Ecological farming methods can mitigate the effects of climate change as they can, for instance, improve the ability of the soil to retain moisture.

[www.biovision.ch/bustani](http://www.biovision.ch/bustani)



4

Passing on knowledge: Haji Haridi teaches on experimentation with different types of compost in the aubergine field of the school garden. Picture: Alexander Wostry.

Biovision Projects

## Garden of Solidarity in Tanzania

Ecological agricultural methods can reduce CO<sub>2</sub> emissions and combat the effects of climate change, which particularly impact African farmers even though they themselves scarcely cause any CO<sub>2</sub> emissions. The “Garden of Solidarity” in Tanzania is a meeting place that brings men and women farmers in rural Morogoro closer to environmentally friendly farming methods. It contains an information centre and a school garden. The partnership with Sokoine University of Morogoro, which should be realised in the coming year, will make scientific guidance of the training and experiments possible. In this way students from the region, as well as farmers, profit from the project.

### Building Bridges

The Biovision Foundation supports the project and simultaneously profits from experience exchange with other organisations. The demonstration garden was initiated in collaboration with the Swiss aid organisation “Water for the 3rd World” (W-3-W) and has already achieved great advancements in a short time. In addition to this, Biovision can build a bridge for the Infonet-Biovision project from Kenya, where it is mostly active, into its neighbouring country Tanzania.

19<sup>th</sup> September 2009: At the first regular farmers’ meeting, 35 men and women farmers discuss the merits of the moringa tree. They receive information material that has been compiled by students. Picture: Alexander Wostry

### Dedicated Ambassadors

The demonstration garden is in the care of Haji Haridi, a man greatly valued by farmers in the Morogoro region. As a former gardener he is passionate about plants and trees. He was sceptical at the beginning, but has become a dedicated ambassador for organic farming methods. From January next year he will take part in computer courses that will make access to knowledge on Infonet-Biovision ([www.infonet-biovision.org](http://www.infonet-biovision.org)) easier for him. He is also learning English so that he can translate information from the internet or from the farmers’ newspaper “The Organic Farmer” into Kiswahili, the official language of Tanzania.

In the “Bustani ya Tushikamane” area at the moment, five other non-governmental organisations that carry out activities in the agricultural area maintain offices. This allows Biovision to utilise synergies and ensure the sustainability of involvement in the area.





Nasozzi Bona is a traditional healer in Bongole, a village close to the Mpigi forest in Uganda. In her garden she cultivates healing plants like aloe, which she needs to make medicine and which enable her to generate additional income independent of the forest. Picture: Biovision/Verena Albertin

Biovision Projects

## Traditional Knowledge for New Generationst

The biodiversity of the last forests in East Africa is threatened, because farming families on the outside of existing reserves feel forced to clear the forest for firewood and grazing land. Biovision is combating this continuing destruction with a project promoting cultivation of aromatic and medicinal plants. Through this, farming families can generate an additional income independent of the forest without clearing land. This conserves living space for innumerable rare species of plants and animals. Biovision has also initiated collaboration with a group of traditional healers in the Mpigi forest in Uganda. These healers now pass on their holistic knowledge about aromatic and medicinal plants and the making of medicines to young people in courses, at the same time sensitising them to the necessity of protecting the forest. Sustainable results are only achievable when one thinks of future generations today.

The activities in Uganda provide a valuable complement to projects set up along similar lines in Kenya (Kakamega Rainforest) and Tanzania (Usambara Mountains, Eastern Arc Mountains and Coastal Forests of Tanzania and Kenya).

Commentary

## Pest Control by SMS

“Every week my advice programme for farmers is broadcast from many Kenyan stations. After every programme I am swamped with questions on concrete problems: “What can I do about the pests in my maize field?” Or: “What can I do about the effects of drought?” In the following week’s broadcast I can only answer a few questions. And often farmers need an answer right away, since the maize pest doesn’t wait for the next radio programme. This is where the mobile phone comes in, as I can send suggested solutions to their problems by SMS\* to all corners of our country instantaneously. Equally, they can send their questions to us by SMS. The text messages are an ideal complement to the radio programme; they make the spread of information faster and more flexible. Mobile phones are widespread in Kenya, even though they are not cheap. That may be astonishing, but it has little to do with luxury or false priorities. Since we have had mobile phones here we can keep in contact with relatives, whereas in the past that was not possible due to the enormous distances and high travel costs involved. And, as our SMS service shows, the right answer at the right time can mean the difference between a good harvest and hunger.

5



### John Cheburet

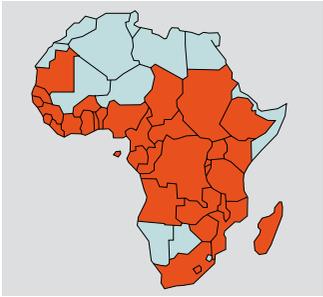
John Cheburet is the editor of TOF Radio, the weekly radio programme from “The Organic Farmer”. TOF Radio is financed by the Liechtenstein Development Service (LED) and is directed at farmers in Kenya, Tanzania and Uganda.

Picture: Biovision/Flurina Wartmann

\* Short Message Service (short written messages that can be sent and received by mobile telephone)

[www.infonet-biovision.org](http://www.infonet-biovision.org)

At [www.infonet-biovision.org](http://www.infonet-biovision.org), a website with information on ecological agriculture, agricultural advisers and farmers in Africa can educate themselves on many topics, including the cultivation of drought-resistant Manioc plants (cassava), which are threatened by the African Cassava Mosaic Virus (ACMV).



Spread of the African Cassava Mosaic Virus (ACMV)



Infected Manioc plant with typical mosaic pattern

6

The information provided by Infonet-Biovision is compiled according to scientific criteria and is complemented by maps and pictures. The website offers concrete solutions for problems in the field and in the fight against pests and disease.

Click on Infonet-Biovision

## Manioc Survives Drought

The cultivation of Manioc (Cassava) is a safeguard against total crop loss by drought as it is a food plant resistant to extremely dry conditions. The roots can be harvested throughout the year, or can be left unharvested in the ground for up to three years. It is mostly made up of carbohydrates, while the leaves contain protein, vitamins and minerals. However, Manioc is also susceptible to various pests and diseases like the African Cassava Mosaic Virus (ACMV). [www.infonet-biovision.org](http://www.infonet-biovision.org) shows the farmers that ACMV is recognisable by the mosaic pattern left by the disease on the leaves of infected plants. Infestation of the virus in Manioc fields can lead to a loss of up to 90% of the crop. The virus spreads most commonly when infected cuttings are unwittingly planted. For this reason, it is vital to ensure that only healthy seedlings are planted in newly cultivated fields. The disease is also transmitted over many kilometres by white flies (*Bemisia tabaci*). Since occurrences of the virus and flies are densest on the side of the field facing the wind, fields should be laid out in such a way that plants are exposed to as little wind as possible. Virus-tolerant Manioc plants of traditional breeding are also available.

Visit Infonet-Biovision online:  
[www.infonet-biovision.org](http://www.infonet-biovision.org)

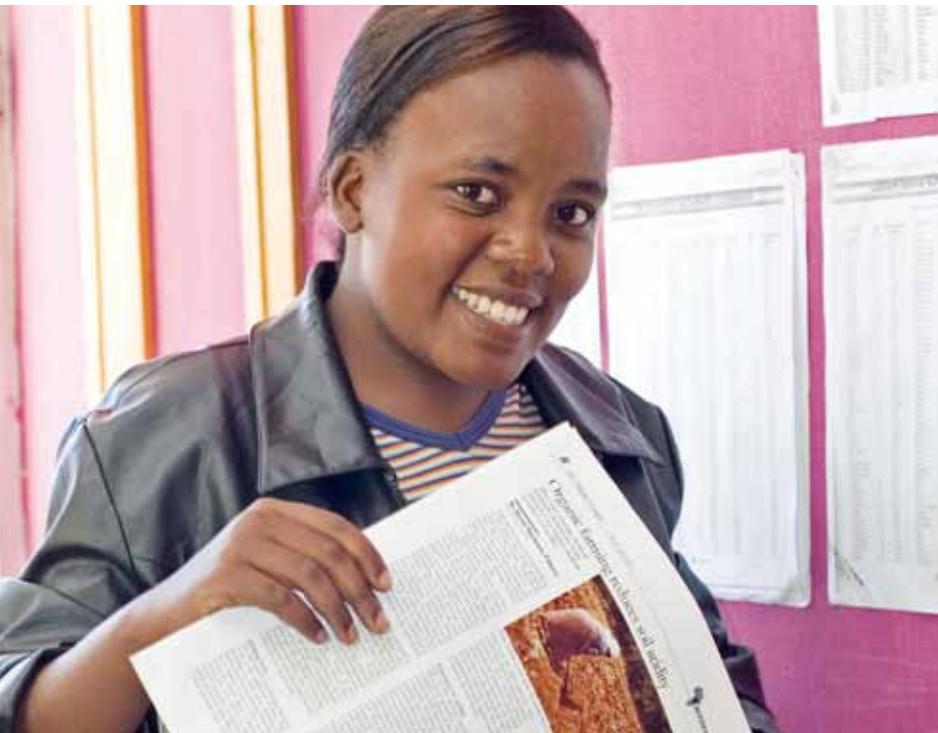
Protagonists in Biovision's Projects

## Stingless Bees (Meliponini)

Stingless honeybees – like roses without thorns. Yet they do exist: around 400 species are known, all of which build colonies and live in tropical and subtropical areas. But they are not weaponless. Some species protect their nests – in mouseholes or hollow trees, for example – very aggressively by biting or squirting a corrosive fluid. Their honey production is largely modest, a population will usually produce only a few hundred grams a year. But it is good stuff. It plays an important role in traditional medicine. It contains anti-oxidants, which have been ascribed preventative qualities against arteriosclerosis and cancer. Some species such as *Trigona carbonaria*, which is about the size of a mosquito, are farmed in beehives, as is the case in Biovision's Cabesi Project in Kenya. In this way the honey can be harvested without destroying the bees and their dwelling.



The honey of stingless bees is very popular as medicine in Africa. In West Pokot, where Biovision supports Project Cabesi, it is often given to sick children. The honey quickly heals wounds in the mouths of infants. Picture: Flickr



Lucy Macharia has a close relationship with her family: she visits her home town of Kitale, where her grandmother lives, at least four times a year. Her mother is a teacher in northern Kenya and her sister is studying in Uganda with her support. Picture: Urs Mattle

A Day in the Life of Lucy Macharia

## “I learned how to say ‘Grüezi’”

Lucy Macharia leaves the house on weekdays at 7:15am, and reaches the office of the ‘Organic Farmer’ on the first floor of a residential building in Nairobi’s Westlands area at 8:00am. The 27-year-old Kenya is responsible for the administration of the monthly farmers’ newspaper ‘The Organic Farmer’, which makes ecological methods of agriculture accessible to farmers. The editorial team is made up of Peter Kamau, farmer and journalist from Kenya and Peter Baumgartner, former Africa correspondent for the ‘Tages Anzeiger’. With a circulation of 20,000, TOF stands among the important daily newspapers as the largest regular publication in the country.

### Informative working days

According to Lucy, she learns something new every day. Sometimes she is dealing with agriculture and the themes of TOF, other times she is in contact with farmers, scientists and journalists, and the coordination of dispatching the newspapers to farmers’ groups, schools and other subscribers in the country is always challenging. It is never boring in the TOF office, not least because her two colleagues in the editorial team are always cracking jokes. They consider themselves lucky that Lucy frees up their time for other tasks, and that the office administration is in good hands: who else would handle the post, answer the phone or oversee the administration of over 200 addresses? Lucy thinks they make a good team and complement each

Everything has its time – including life

## A legacy for Biovision

„We are all included in bearing responsibility for this earth and we are all able to contribute – each according to his own means. I myself, at this ripe age, only do things that make me happy. And it makes me happy to have the opportunity to leave Biovision a little donation, so that its beneficial effects can develop and expand. What Biovision achieves in Africa is a model for the whole world, and it’s the best way to conquer hunger and conserve nature.“



Verena Schaffner, Reigoldswil (BL)

If you have questions or would like to order our free bequest advice booklet, please contact Reto Urech on +41 44 341 97 19 or by email: [r.urech@biovision.ch](mailto:r.urech@biovision.ch)

other well, since she finds it easy dealing with numbers while the journalists take care of the letters.

### Memories of Switzerland

In autumn, Lucy took a trip to Switzerland with Peter Baumgartner. Snapshots on her computer screen allow Lucy to travel to the mountains around the Matterhorn every now and again throughout the working day. She was very impressed by the mountains and equally impressed by the punctuality and interior of the trains and buses. The shared taxis called ‘Matatus’ in Nairobi, are much less reliable and always overcrowded, she says. And the grass in Switzerland is so green it looks like it has been cleaned every morning. Many people in Kenya would be happy if things could look or operate a bit more like they do in Switzerland. It would be good if Kenyans learned something from Switzerland, says Lucy. She has already started and acquired a few nuggets of Swiss German: “Grüezi” (hello), “Muskelkater” (muscle cramp) and “wie geht’s?” (how are you?) – basic vocabulary for a hike in the Swiss mountains.



[www.biovision.ch/shop](http://www.biovision.ch/shop)

## Shop online and support Biovision

You can order candles from the Cabesi Project in Kenya and other Biovision articles online at [www.biovision.ch/shop](http://www.biovision.ch/shop). By shopping you are also helping to improve living conditions for people in Africa. Orders are processed through the website of our partner firm Terre Verde.

Thursday, 25<sup>th</sup> March 2010, Stadtcasino Basel, 7:30pm

## Biovision Benefit Concert with Sol Gabetta – last remaining tickets!

The world-famous cellist Sol Gabetta wholeheartedly hopes to inspire solidarity in people for the mothers and small children of Africa through her involvement with Biovision. Proceeds from the concert are going to Biovision's 'Stop Malaria' project. Support the work of Biovision by going to this unique concert. Or surprise a loved one with an evening at the concert as a Christmas present. There are only a few tickets left! You can order by phone on 0900 585 887 or choose your seats online: [www.kulturticket.ch](http://www.kulturticket.ch)

### Impressum

Newsletter 19, December 2009  
© Biovision Foundation, Zürich

### Concept

Peter Lüthi, Christop Hess,  
Andreas Schriber

### Text

Beat Jordi, Christoph Hess,  
Hansjakob Baumgartner,  
Peter Lüthi

### Design

Atelier Binkert, Zürich

### Cover Picture

Peter Lopus, Farmer and shepherd  
in West Pokot, Kenya. Picture:  
Biovision/Peter Lüthi

### Print

Schneider, Scherrer AG (Bazenheid)

### Paper Quality

Cyclus Offset (100% recycled)

Information Campaign December 2009

## 'Stop Malaria' in Swiss Cities

In December 2009, the topic of malaria will be raised in Zürich, Bern and Basel. Using advertisements in trams, illuminated posters and electronic billboards in train stations, Biovision will inform people that this deadly disease can be fought using environmentally friendly means. This campaign promotes solidarity and support for Biovision's projects in Africa. Many thanks go to Fredy's AG, who made this campaign possible.

# NATUR

Messe Kongress Festival

The **NATUR Exhibition** which can be found parallel to muba, deals with many issues shared by Biovision. We invite you and you family to come along to the exhibition at a reduced price.



NATUR Exhibition and Festival,  
11<sup>th</sup> – 14<sup>th</sup> February 2010, 10am – 6pm,  
Basel Exhibition Centre, Hall 4

### Voucher

for entry to the NATUR exhibition and muba for 8 CHF instead of 14 CHF. Children under 16 accompanied by an adult go free.



Please hand your voucher to the cashier.

## Help people in Africa!

For over 10 years, Biovision has promoted the development, dissemination and implementation of ecological, environmentally friendly methods that people in developing regions can use to help themselves. Biovision is a non-profit organisation certified by ZEW.

Thank you for your donation! Donation account PC 87-193093-4



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

Schaffhauserstrasse 18, 8006 Zürich, Tel. +41 44 341 97 18, [www.biovision.ch](http://www.biovision.ch)

