

akzente

1/2021

The GIZ Magazine

Growing
together

Successful mentoring
in South-East Asia

A prickly
solution

Biomass production
in Namibia

Through the
eyes of a child

Safe school routes
in Ukraine

Food and nutrition

The basis for a healthy future

**MORE FUN
IN THE CLASSROOM**

FARID EL-HOUZIA

After living in Germany for 20 years, Farid El-Houzia returned to his native Morocco. With assistance from the Centre for International Migration and Development (CIM), he founded a start-up where he uses robots and digital tools to get children excited about learning through play.

You can find this and other 'Faces and Stories' online at www.giz.de/stories



Scan the code with your smartphone to watch the video.

SMALL DIFFERENCES

Why we all have a role to play in the fight against hunger.

AN UNFAMILIAR SENSE OF DEPRIVATION is being felt across Germany at present as we make our way through the coronavirus pandemic: a lack of social contact or human warmth, and of opportunities and freedoms. Add to that a fear of loss – perhaps of one's job or livelihood. When the pandemic first started, concerns flared up that even the bare necessities could be put at risk, that there could be shortages of electricity, water or food. This led to some people stockpiling toilet paper, others flour or pasta – and some even red wine.

FOR THE FIRST TIME since the Second World War, the West has seen a collapse in its consumer society. However, in many cases these are what could be classed as luxury problems. The effect is much more dramatic in other parts of the world, where shortages are part of everyday life because there is never enough – enough of something quite fundamental: food. Statistically, one in every nine people goes to bed hungry. Even in the 21st century, hundreds of millions of people literally have to struggle for their daily bread. The pandemic has exacerbated the situation, but the problem existed beforehand. To a degree, there is hunger in abundance.

THIS NEED NOT BE THE CASE. There is enough food on the planet to feed everyone, and to do so long into the future, too, despite the global population growing to nine or ten billion people. Scientists are unable to agree at what point the balance will tip, but one thing is clear: we have not reached it yet. Nevertheless, the international community has still not managed to provide every human being with sufficient, healthy food.

THE AIM IS to have eradicated hunger by 2030. This is the target that the international

community has set itself. How can this be achieved? That is what this issue of *akzente* will examine. The African scientist Jemimah Njuki describes our current food system as fundamentally wrong, and in her essay explains why a lack of gender equality plays a major part in this. We also interviewed UN Special Envoy Agnes Kalibata from Rwanda, who tells us why she thinks that individual measures alone are not enough. We need to look at food systems as a whole and make them more sustainable, while also keeping a close eye on the impacts of climate change.

WHAT IS STRIKING is that women are significantly underrepresented in this field, even though it is they, above all, who play a crucial role in producing and preparing food. We wanted to break this mould, at least in our sphere of influence, so the majority of voices on this focal topic will be those of women. Apart from the gender aspect, their contributions mainly show one thing: we are part of a greater whole. We all help shape the food system through the decisions we make every day. Each and every one of us can make a small, yet vital, difference.

WHAT NEEDS TO CHANGE has long been clear: eat less meat and more vegetables; do not let food go to waste or throw it away; buy regionally; and consume everything in moderation – these are the guiding principles. Without wishing to put too positive a gloss on it, sometimes shortages can have a beneficial impact. In our part of the world, at least. Elsewhere, though, they are simply an unacceptable failure.



SABINE TONSCHEIDT,
Director of Corporate Communications
sabine.tonscheidt@giz.de

A handwritten signature in blue ink that reads "Sabine Tonscheidt". The signature is fluid and cursive, written over a white background.



IN FOCUS: FOOD AND NUTRITION

Served up

A world without hunger. Is it a distant dream? In spite of all efforts, millions of people still do not have enough to eat. How can we change this?

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PHOTOS: MALTE JAEGER/LAIF (P. 4, TOP), ILLUSTRATION: JULIAN RENTZSCH (P. 4, LEFT), TIM BRUNAUER (P. 4, RIGHT)



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Salam from Islamabad!

From Peer Gatter, Manager of the FATA Development Programme in Pakistan p.50



DIGITAL AKZENTE

Our magazine is also available online in an optimised form for mobile devices. akzente.giz.de/en

IN FIGURES

>91 hours

This is how long the EU summit in Brussels lasted, from 17 to 21 July 2020 – making it the second-longest in history after the 2000 summit in Nice. The issues were complex, ranging from a recovery fund to deal with the consequences of the pandemic to an agreement on the new Multiannual Financial Framework (MFF).

40 million

The number of words that the EU Council Presidency Translator, a machine translation tool, has already translated into 24 languages. It translates to and from all EU languages, and is publicly available to anyone interested in using it. The translation system was specially developed for the German EU Council Presidency and is based on artificial intelligence.

1.8 trillion

The volume, in euros, of the historic financial package assembled during the German EU Council Presidency: agreement was reached on the EU's financial framework for the next seven years and a recovery fund to tackle the impacts of the coronavirus pandemic. Furthermore, the EU funds are protected by a new rule-of-law mechanism.

Source for all figures: bundesregierung.de



Using knowledge

REPORT GIZ presented its evaluation report in Berlin. The report assesses 215 project evaluations, and the outcome is positive: evaluations are now of a better quality and are more comparable. Systematic auditing of effectiveness is an important part of GIZ's work. Managing Director Ingrid-Gabriela Hoven put it like this: 'Our aim is always to be transparent, develop our instruments and improve our services in the long term. We want to know what works and to learn as an institution.'

<https://www.giz.de/en/aboutgiz/516.html>

‘We must change our diet. The planet can’t support billions of meat-eaters.’

SIR DAVID ATTENBOROUGH
in his documentary ‘A Life on Our Planet’



Shine On

AUDIO Solar-powered water pumps are doubling farmers’ incomes in Tanzania – just one example of many highlighted in the Shine On podcast, which features successful projects and business ideas involving solar energy in Africa. It also covers topics such as relevant legislation, tariffs and barriers to entering the market. Success stories speak for themselves. Arnoud de Vroomen, for example, CEO of SolarWorks! in Mozambique, talks about how one of his employees rose through the ranks from being a cleaner to become head of the call centre. Another interviewee is GIZ staff member Michael Franz,

Team Leader at GET.invest, which produces the podcast together with SolarPower Europe. GET.invest is a European instrument that mobilises investment in decentralised renewable energy projects. It targets private sector businesses and project developers, helping them to devise finance-ready proposals in order to build sustainable energy markets in partner countries. GET.invest is supported by the European Union, Austria, Germany, the Netherlands and Sweden, and is implemented by GIZ.

<https://shineon.buzzsprout.com>

THREE QUESTIONS FOR



TOUTY SY

The fashion designer has a clear vision: fashion ‘made in Senegal’. She is aiming to promote the country’s textile sector by training and employing young people and women. She set up a community of interest, supported by the bilateral GIZ project Successful in Senegal.

How did you launch your career in the fashion industry?

I had already done evening courses in fashion design in Paris and had a flourishing business importing clothing and accessories. That’s when I realised I would rather invest in my own country. I got together with a dressmaking school in Dakar and created 25 jobs in my atelier TOUTY. We have been manufacturing made-to-measure and prêt-à-porter garments for the African market since 2015.

How did the Successful in Senegal project support you?

I joined forces with other Senegalese fashion and jewellery designers. We share the cost of premises, purchases and training courses. In 2019, GIZ advised us when we were setting up our community of interest, called Atelier 221, and organising pop-up stores.

The coronavirus pandemic has hit the textile industry particularly hard. Has it been the same for you?

All boutiques had to close during the 2020 lockdown, so Atelier 221 joined the nationwide campaign ‘1 Sénégalais, 1 Masque’. We were able to arrange for the production of 300,000 face coverings, securing work for 600 people in the process. GIZ bought masks worth a total of EUR 15,000 from us.

Sustainable fishing

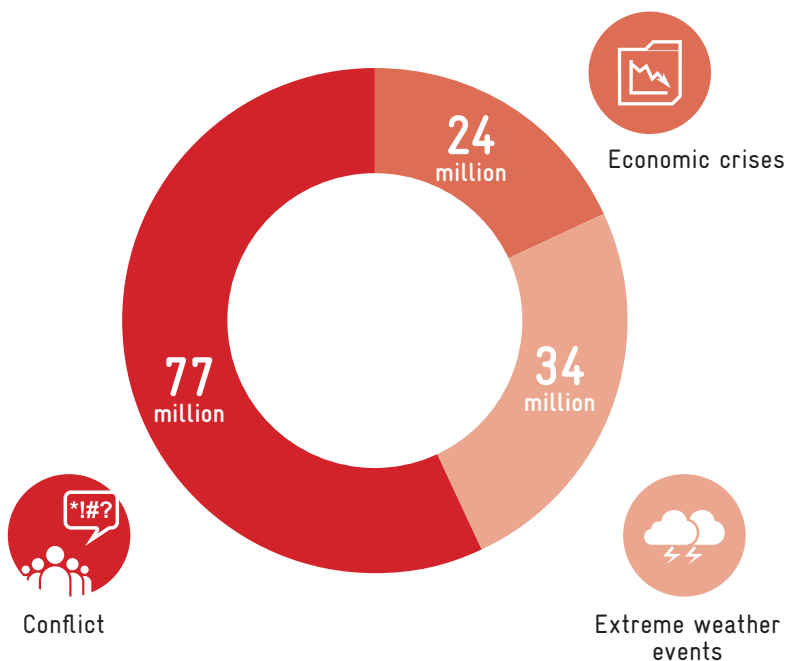
AGREEMENT Good news for the Ohrid trout: in future, fisheries in Lakes Ohrid and Prespa will have to comply with sustainable principles. In early December 2020, the governments of Albania and North Macedonia signed an agreement ensuring sustainable management of fish resources in these bodies of water, which straddle national boundaries. The two lakes are among the oldest in the world, and are of enormous ecological value. Biodiversity there is greater than almost anywhere else in Europe, and includes endemic species, such as the Ohrid trout and the Prespa barbel. Fishing is important in providing a livelihood for local residents around the lakes. Fish stocks have

recently declined, reducing the fishers' incomes. Working with the Institute of Inland Fisheries in Potsdam-Sacrow, GIZ supported the partners during the negotiations on the agreement. GIZ is implementing a regional project on the conservation and sustainable use of biodiversity there, on behalf of BMZ. The negotiating partners agreed to coordinate their sustainable management measures in both lakes in future, and to cooperate with each other more closely in the context of the efforts both countries are making to join the EU. To work towards this they set up a new joint body, the Joint Fishery Commission for Lakes Ohrid and Prespa.



What causes hunger

IN COMPARISON In 2019, 135 million people around the world were affected by acute food and nutrition insecurity – the most extreme form of hunger. The main causes were conflict, extreme weather events and economic crises, in that order.



Snacks 'made in Nigeria'

INNOVATION Pacific Ring West Africa (PRWA), a company in Nigeria, had an idea for a new tasty treat: Cassanovas, chips made from cassava, which they hope will conquer the world market. The cassava for the chips is grown in the local region. Since the end of 2019, GIZ has been supporting the involvement of local farmers in the product's value chain as part of a development partnership between the Nigerian company and develoPPP.de. The chips are now being exported to Europe, and are part of the product range of the Edeka retail chain, among others. The smallholders participating in the scheme receive training in good agricultural practice and entrepreneurial skills at a Green Innovation Centre financed by BMZ. Setting up cassava chip production has created 300 jobs, mainly for women. Furthermore, 1,500 smallholders are generating higher yields and earning a stable income. To date the company has come through the coronavirus crisis well and has been able to make up for shortfalls caused by temporary disruption to its supply chains.

Source: Food Security Information Network, '2020 Global Report on Food Crises'

Digital ID for trees

PERU A software tool is helping to ensure that trees from Peru’s Amazon region can be clearly identified. Each trunk is given a bar code – its ID card, so to speak. This is a vital means of clamping down on illegal logging. The DataBOSQUE software can be used to verify a trunk’s legal origin. First, the locations of all trees that are due to be felled legally are registered in the software, and the felled trees are assigned a bar code. In that way sawmills can be certain that they are not processing illegally harvested timber. Now forestry enterprises and Peru’s National Forestry and Wildlife Service are both able to efficiently trace the origin of a tree, whenever they need to. Managing the Amazon forest sustainably places the incomes of forestry businesses and local indigenous communities on a secure footing. Certain tree species are used on a selective basis, while the Amazon forest as a whole is preserved. Sustainable management helps to reduce deforestation and plays an important part in species conservation. The area of legally and sustainably managed forest has doubled over the past two years, extending to almost four million hectares in 2019.

PERU WIKI

Official languages: Quechua, Aymara, Spanish (1) / **Capital:** Lima (2) / **Form of government:** Republic (1) / **Size:** 1,285,220 km² (2) / **Population:** 33 million (2) / **Population density:** 25.8 inhabitants per km² (2)



Sources: (1) German Federal Statistical Office (Destatis), (2) UNdata

NEW PROJECTS



Decarbonisation

LATIN AMERICA The IDOM consortium and GIZ, represented by its International Services office in Latin America, are helping companies from Argentina, Brazil, Chile and Colombia to develop new business relationships with Europe. The project focuses on renewable energy, waste management, energy efficiency, agriculture and forestry, with the aim of creating a circular economy with low carbon emissions. It is financed by the EU.



Green cooperatives

POLAND On behalf of the German Environment Ministry (BMU), GIZ is promoting cooperatives in two regions of Poland to expand the use of renewable energy in rural areas. The cooperatives generate green electricity for their own needs, and feed surplus power into the grid. The project is cofinanced by the European Commission’s Structural Reform Support Programme (SRSP) and is implemented by GIZ. This means that GIZ is active in Poland again for the first time in 20 years. GIZ International Services is managing the finances..



Green Recovery

CENTRAL AMERICA Together with the General Secretariat of the Central American Integration System (SG-SICA), GIZ is inviting companies in the region to participate in two ideas competitions focusing on green recovery. Once the entries are in, 40 projects will be selected that will help to boost the economy while benefiting the environment in order to mitigate the impacts of the coronavirus pandemic. The aim of this project on behalf of BMZ is to create jobs and encourage green innovation.

PHOTOS: MURALINATH/GETTY IMAGES (P. 8), BSWEI/GETTY IMAGES (P. 9, LEFT), TOBIAS BARTH/GETTY IMAGES (P. 9, CENTRE), ARTRACHENDI/GETTY IMAGES (P. 9, RIGHT)



A PRICKLY SOLUTION

The bush is spreading in the expanses of Namibia. Farmers are facing up to the challenge and are harvesting the biomass. This creates jobs and secures the survival of small-scale farms. A visit to the north east of the country reveals how thorny twigs are turned into animal feed.

TEXT LEONIE MARCH

PHOTOS TIM BRUNAUER



VISIONARY

During the recent drought, Chief Ruben Uazukuani ensured the survival of his herd by feeding the animals bush feed.



Ruben Uazukuani chops off the bush wood just above the rootstock. It is then crushed in a hammer mill. Harvesting and processing is labour-intensive work, so he employs people to help.

The project contributes to the following United Nations Sustainable Development Goals (SDGs):



‘When I was your age there were none of these bushes around here,’ Chief Ruben Uazukuani says to his twelve-year-old son Rusuvero as he opens the gate to the pen. His cows are already waiting. They walk off into the bush landscape and are soon out of sight. ‘You used to be able to look out over the savanna from here and you would see grass growing everywhere,’ explains the smallholder. Now his cattle struggle to search for food, as the bushes, some of which grow to the size of trees, have replaced the grass. In quite a few places the growth is actually so dense and thorny that the cows cannot get through at all, or not without injuring themselves.

Experts call this bush encroachment, a problem that affects many regions of Namibia. The bush has now expanded to cover as much as 45 million hectares of land. That is roughly the area of Germany and Austria combined. And the problem is growing: by around three per cent a year. The main reason is decades of overgrazing, explains GIZ staff member Johannes Laufs: ‘The whole process is accelerated by climate change, because with high levels of CO₂ in the atmosphere the bush grows better than grass.’ The consequences for agriculture are devastating. With support from the Bush Control and Biomass Utilisation project, which is managed by Laufs, Namibia is responding to changes to its climate and is trying to boost its resilience. This is a matter of urgency, as bush encroachment has been accompanied by serious droughts in recent years. ‘Many smallholders from our region lost their livestock and were forced to move to the cities,’ Uazukuani recounts. He himself has been working in the capital Windhoek for a number of years now. It is only at weekends that he makes the approximately four-hour journey to Okamatapati, where his family farms several thousand hectares of land that he has rented from the state.

A prickly solution

Together with his son and two workers, he drags his hammer mill out of a shed. The mill has rotating hammers, which can grind various bush materials to different degrees of fineness. He heaves it onto his pickup, and after driving a short distance the men get out, grab their machetes and start chopping off the bushes growing along the edge of the unpaved road, just above the rootstock. The bushes are showing signs of fresh growth after long-awaited rain. Uazukuani uses the mill to grind and shred the branches, and gradually the loading area of his pickup starts to fill up. 'A good crop,' he says. That's because while the bush used to be viewed as nothing but a problem and in some cases was destroyed using chemicals, today it is also considered to be a valuable resource. The 47-year-old is one of over a thousand farmers who have attended workshops to learn how to produce animal feed from bush biomass. The De-bushing Advisory Service was set up by GIZ and organises the practical training courses. Several of them are held on the farm belonging to Anton Dresselhaus, who is considered a pioneer in this field in Namibia.

No one is laughing about bush feed any more

He began experimenting with formulations 10 years ago, first out of necessity and later out of conviction. 'Many people laughed at me at the time and told me "Cows are grazing animals and don't eat bushes,"' he recalls. But the innovative agriculturalist proved the opposite. 'If the bush material is fine enough and looks like grass or wool, they actually very much like eating it.' The mix is then enriched with

NEW WAYS OUT OF THE BUSH

Under the influence of **climate change**, savannas around the world are being transformed into thickets of bush. Namibia is attempting to curb bush encroachment while simultaneously creating opportunities for agriculture and new jobs. Bush control and promoting biomass value chains are important elements of development cooperation between Namibia and Germany. GIZ's Bush Control and Biomass Utilisation (BCBU) project, implemented on behalf of the **German Development Ministry**, works closely with the **Namibian Ministry of Agriculture, Water and Forestry**. As part of the collaboration, frameworks have been developed and put in place to utilise the bush on a sustainable basis. Along with the production of animal feed, the project supports value creation in the form of renewable energy, biochar, charcoal and building materials. A knowledge centre for farmers and entrepreneurs has been set up too – the De-bushing Advisory Service. So far an additional **5,300 jobs** have been created, and during the last drought **860 farmers** produced animal feed from bush biomass. Bush control measures are carried out on **300,000 hectares** of land every year.

Contact: Johannes Laufs, johannes.laufs@giz.de;
Asellah David, asellah.david@giz.de



Top: Anton Dresselhaus is a pioneer in the production of bush feed and shares his expertise.

Links: Ruben Uazukuani shows his son how bush encroachment has accelerated as a result of climate change.



Find out how a brewery in Namibia is making use of bush biomass by watching a video on the akzente website: [akzente.giz.de/en](https://www.akzente.giz.de/en)



**'Our aim
is to restore the
balance of
the ecosystem.'**

PROGRESS KASHANDULA,
General Manager of the De-bushing Advisory Service (DAS)
in Namibia

Read the full interview at
akzente.giz.de/en

ingredients such as molasses, salt, urea or phosphate to provide the livestock with proteins and minerals at the same time. As well as the basic formulation, there are other special mixtures, for pregnant females, for example. Dresselhaus has documented everything in precise detail. He is pleased that his livestock put on weight faster, so can then be sold all the sooner. That saves costs. Moreover, he was able to create additional jobs for people harvesting and processing the bushes. During the drought he was nearly overwhelmed by enquiries, with demand for surplus bush feed from his production extremely high at the time.

The various farmers involved now swap tales of their experiences, and have also persuaded those who were initially sceptical, such as Ruben Uazukuani. To begin with he could not believe that his cattle would 'eat twigs'. But he was soon convinced. 'This scheme kept my herd alive. Without the bush feed they would not have survived the last drought,' stresses Uazukuani, as he returns to his small farm after harvesting the bush. Between the small buildings, opposite the cooking stove where the women are preparing the midday meal, lies the mixed feed which he had already spread out in the sun on plastic sheeting the previous day.

What's good for the bull is good for the farmer

The pure shredded bush can be stored for some time, he explains, but the finished mixture has to be fed to the animals quite quickly. He fills a bucket and carries it to a trough. A young bull comes trotting up straight away and tucks into the feed. It is clear that it tastes

A prickly solution

at least as good to him as conventional feed does. Yet it is around a third cheaper, according to Uazukuani. 'I'm saving a lot of money.' After the recent rain, though, his herd have been feeding mainly on grass again. Only certain animals, such as those that are particularly valuable – like this bull – get the organic bush feed as an added extra, because producing it is labour-intensive and requires a degree of expertise. Uazukuani produces it himself, taking the greatest care, because getting the formulation wrong can harm the animals, and in extreme cases even kill them. 'If I were here all the time, I would produce the feed constantly,' he explains, 'because it is truly excellent, more than just an emergency feedstuff.'

The same opinion is expressed by Salomo Kauari, another smallholder on communal land. After his father died, he gave up his job at an agricultural company to devote himself fully to farming. 'The bush feed was a real revelation,' he explains. 'I can use lots of things that are already here on the farm to make it, or crops that I can grow myself.' And indeed, plants such as lupin and moringa, which he adds to the feed, are growing next to his house. Bales and sacks of dried ingredients, including protein-rich seed pods from certain bush species, are stacked in a shed.

Kauari has resolved not to buy in any feed at all this year, but to make it himself. Not only because he has to drive to a bigger town about 150 kilometres away to get to the nearest business selling agricultural products or because money is short, but also because he is convinced of the quality of the feed. 'Thanks to the bush feed none of my livestock perished during the drought, while my neighbours lost many animals in that time,' he explains. He is now experimenting with different formulations for various uses, and doing so suc-

cessfully. His plans to continue thinning the bush are just as ambitious: in the course of the year, the 45-year-old farmer is aiming to clear as much as four hectares of species that spread particularly quickly and displace the grass in the savanna. The cost of hiring two workers to do this is worth it, he declares, pointing out that 'I've seen how the pasture land recovers where we've previously thinned the bush.' He now uses this land to keep goats, which eat the shoots as they regrow and keep the new growth in check.

There is something else that Kauari has observed, too: his two wells now have more water in them again since he removed the bushes, some of which have deep tap roots. 'Before, we were only able to draw water from them for a couple of hours a day, but now the levels are much higher.' In light of this success, he has no doubt that bush-based feed is the way forward. His biggest dream is having a pellet press to produce pelleted feed, which can be stored for longer. 'I'm already saving up to buy one. I could supply animal feed to farmers in the neighbourhood and would have another source of income.' At the same time, his land would continue to regenerate. And perhaps, some day, the landscape will once again look like it did back when Ruben Uazukuani was a boy. —



LEONIE MARCH has been living in South Africa since 2009, working as a freelance correspondent.

TIM BRUNAUER is a Namibian photographer who is passionate about meaningful stories.



Smallholder Salomo Kauari keeps his livestock on communal land. The goats prevent the bush from growing back quickly.

Top left: Kauari mixes the finely-chopped bush feed with protein-rich plants that add even more value to the feed.

A woman with a joyful expression, wearing a dark headscarf and a colorful, patterned apron over a black and white polka-dot top. She is holding a plate of food, possibly a flatbread or tortilla, and a small bowl. The background is a blurred outdoor setting with other people, suggesting a market or public gathering.

IN FOCUS

FOOD AND NUTRITION

A world without hunger.
Is it a distant dream? In spite of
all efforts, millions of people
still do not have enough to eat.
How can we change this?



REPORT

Women's harvest

Women smallholders in northern Mali are using new and rediscovered methods to provide good, healthy food. **p.18**

OVERVIEW

Smart solutions

How information and communications technology is improving agriculture. **p.22**

GUEST ARTICLE

Food waste vs. hunger

A commentary by the FAZ business and economics editor Jessica von Blazekovic **p.23**

ESSAY

Fix the system!

The African scientist Jemimah Njuki explains what is needed to feed the world. **p.24**

INFOGRAPHIC

Hunger – no end in sight

The impact of the pandemic on food and nutrition **p.30**

INTERVIEW

'Not enough food and not healthy enough'

UN Special Envoy Agnes Kalibata on the future of food systems **p.32**

BACKGROUND

The bigger picture

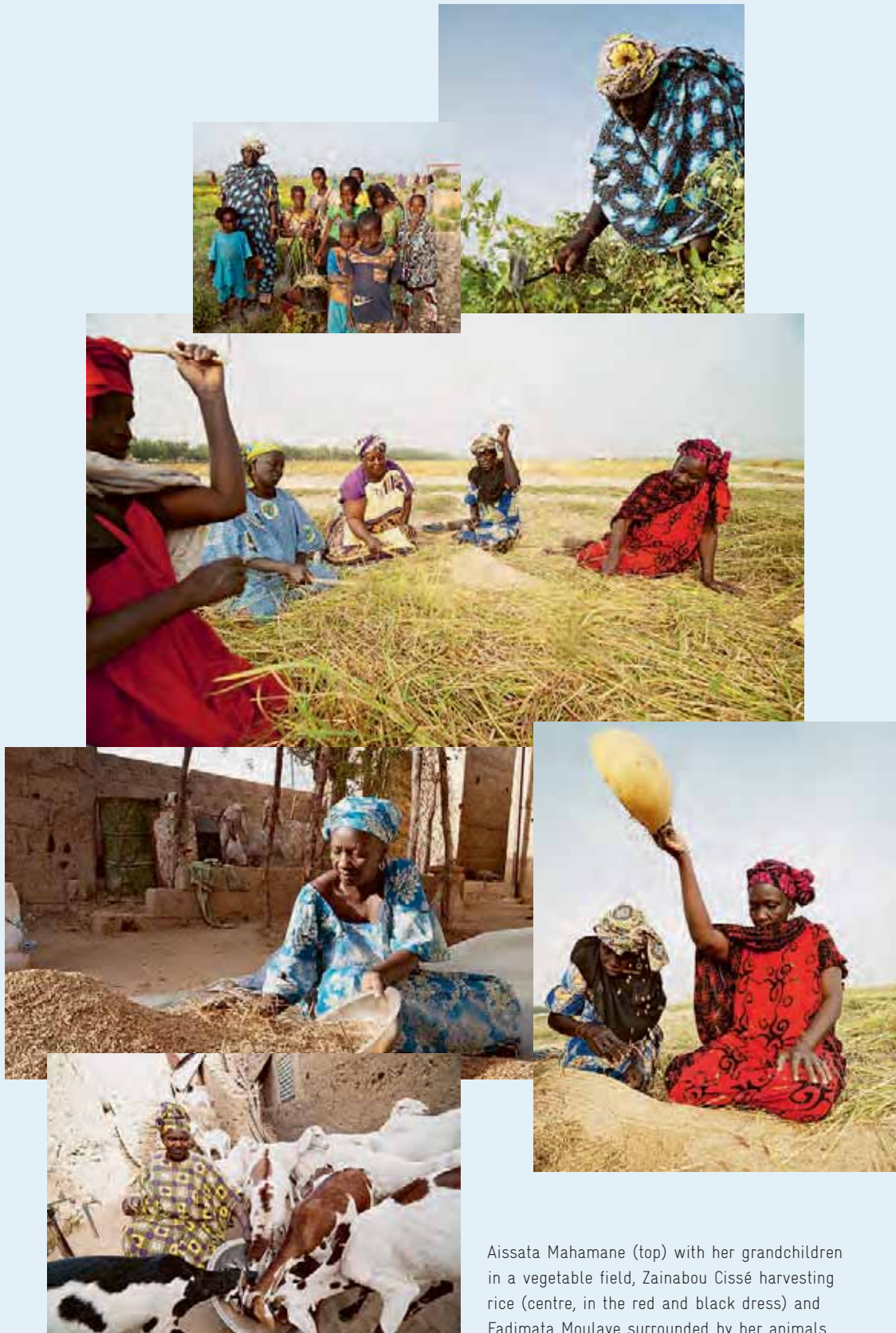
An analysis by Albert Engel, Director of GIZ's Evaluation Unit **p.34**

EXAMPLES OF GIZ'S WORK

Many paths, one goal

How GIZ is contributing to food and nutrition security. **p.35**

In focus: Food and nutrition



Aissata Mahamane (top) with her grandchildren in a vegetable field, Zainabou Cissé harvesting rice (centre, in the red and black dress) and Fadimata Moulaye surrounded by her animals

Women's harvest

In northern Mali, women smallholders are providing good and healthy food. Thanks to new vegetable varieties, goat farming and improved methods of growing rice, they are enhancing not only their income, but also their standing in the community.

Text KATRIN GÄNSLER Photos D.T. ROMAIN GEORGES ARNAUD AKÉMINOU

Nine tonnes. This one figure is enormously important for Zainabou Cissé. The 63-year-old's last rice harvest was nine tonnes per hectare. It is a result she is proud of. The mother of six, and grandmother of three, lives in the northern Malian municipality of Alafia, which is home to some 4,000 people. It is situated about an hour from the city of Timbuktu, whose clay mosques and mausoleums are a UNESCO World Heritage Site. Alafia has its own school, mosques and a health centre, but few opportunities to earn a living.

While most men in the region raise animals or farm, the women generate an income from what is termed 'petit commerce'. They sell everyday consumer goods such as tomatoes and onions, soap, washing powder, salt and sugar at small, wooden stalls. And they grow vegetables and rice on a small scale. Farming in the Sahel may initially sound like a contradiction in terms. Many people will visualise an arid desertscape, but in fact the Sahel is a complex, fragile zone with a very wide variety of vegetation. There

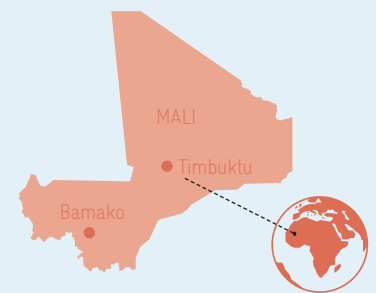
are barren regions with leached, hard soils, but in parts of the Sahel trees and shrubs flourish. The banks of the River Niger offer excellent, fertile conditions. This is where Zainabou Cissé and 42 other women farm a total of 16 hectares of land. Together, this group of smallholders is called the 'Coopérative agropastorale Nafagoumo'.

In an effort to achieve good yields, they used to rely on lots of fertiliser and seed which they sowed on the paddies, but their harvests stagnated, Cissé recalls. 'Per hectare we harvested about five tonnes.' Although that was by no means a bad harvest, the turning point came when they were introduced to a modified method for growing rice – the System of Rice Intensification (SRI). The members of the cooperative found out how this system works at a training session organised by the Food and Nutrition Security, Enhanced Resilience programme (ProSAR) in Mali. GIZ is implementing the programme with partners on behalf of the German Development Ministry (BMZ).

SRI aims to use less fertiliser and seed, while increasing yields. Nursery beds are set

MALI

Capital: Bamako /
Population: 19.66 million /
Annual population growth: 3 per cent /
Human Development Index ranking:
184 (out of 189)



Sources: World Bank, UN, WFP

The Food and Nutrition Security, Enhanced Resilience programme is currently operating in other African and Asian states in addition to Mali. These are Benin, Burkina Faso, Cambodia, Ethiopia, India, Madagascar, Malawi, Togo and Zambia.

Contact: nutritionsecurity@giz.de

up and the seedlings are transplanted after only eight days. They are planted in well-dug soil, individually, widely spaced and in a grid pattern. Although this involves more work, it means that the plants then no longer compete for nutrients as they did when several were planted together. SRI also uses less water than conventional rice-growing methods because the plants are irrigated in a much more targeted manner. Thanks to the introduction of this method to Mali, Zainabou Cissé has seen her harvests almost double, she reports jubilantly.

Local crops mean greater security

This not only boosts the household budget – it also enhances safety and security. When enough rice can be grown locally, there is less need to undertake the hazardous shopping trip to neighbouring towns or even Timbuktu. The risk of being attacked by bandits is high, particularly on long-distance roads. They set up roadblocks, threat-

en travellers and force them to hand over their money. ‘Every trip is terrifying,’ admits Cissé. But she is not going to let that get the better of her, even if insecurity has been the dominant issue in the region for years now. ‘We can’t give up. We must find a way to live with it,’ she says.

In northern Mali, sections of the Tuareg population rebelled against the state at the start of 2012. A military coup followed, and the north of the country was occupied by two terrorist groups. In spite of international military missions and the 2015 peace agreement, the region remains unstable. Another coup followed in August 2020.

Aissata Mahamane, who also lives in Alafia, does not care to look back either. ‘They were hard times,’ she says brusquely when asked about the 2012/2013 crisis. ‘Women were often raped and we were afraid to work in the fields.’ That has now changed for the better, says the 60-year-old. The region is no longer controlled by terrorists who resort to violence to impose ‘their rules’.

In retrospect, Aissata Mahamane can only shake her head – also about the way

they used to farm. ‘Back then, we only grew onions and tobacco.’ Like the other women in her cooperative, she gave little thought to a balanced diet. That changed in 2019, when a training session about growing a variety of nutritious vegetables gave them new ideas. Mahamane, who has five grown-up children and also looks after her seven grandchildren, has since completely overhauled her own kitchen garden. ‘Now I grow potatoes, cabbage, pumpkins, tomatoes, aubergines, onions and lettuce,’ she explains. Some of the vegetables were new to her. The training course also gave her the opportunity to try out new recipes. She likes cooking potatoes and pumpkins best. ‘Pumpkins are very nutritious, so they are good for malnourished children,’ she explains.

The vegetables are not only for her own family though. Her harvests are now so good that she can sell some of her produce. Customers come to her kitchen garden directly. She also supplies two markets. The extra income is welcome as she funds her grandchildren’s education. She pays the equivalent of almost EUR 23 per child



Left: Aissata Mahamane with other women from her cooperative. Since attending training, they have been growing particularly nutritious vegetables.

Top: Fadimata Moulaye gives her grandchildren milk from her goats every day.

every year for school fees, books, pencils, clothing and a rucksack – that is a lot of money in Mali, where almost 43 per cent of the country’s approximately 20 million inhabitants live below the poverty line, and have to survive on less than USD 1.90 a day. Mahamane is proud that she can support her grandchildren with the profits she makes from selling vegetables. ‘It is my dream that they all get a good education.’ That will prepare them for the future and make them adaptable. Of that their grandmother is quite certain.

Fadimata Moulaye also looks after her grandchildren. She lives with them and her son in Goundam, 85 kilometres south-west of Timbuktu. To feed the family, the 48-year-old rears goats and sheep. She began doing so in 2016, when she was given four goats and one buck as part of the Pro-SAR project. The white goats with the floppy ears were the basis of her success. She has since sold some of the animals she has bred and has reinvested the money. ‘14 têtes,’ Moulaye reports proudly on her growing herd, which now numbers 14 animals. That is good for her grandchildren who can drink goat’s milk every day. The animals produce three or four litres per day. ‘I give some of the milk to friends and neighbours and sell what is left.’ That gives her an additional EUR 1.50 a day.

But that is not the only source of income. Moulaye knew immediately what she wanted to do with her first profit. She made a dream come true. ‘I set up a small business. Today I sell tomatoes, dried onions, oil and salt.’ The higher income has improved the family’s diet too. Today they eat more frequently and at regular intervals. ‘I can always make breakfast and an evening meal,’ she nods happily. She is not worried that things might change for the worse. For the times when the goats produce less milk, her small business represents a second source of income.

Her herd has become her private bank. If anyone in the family falls sick, an animal can be sold in an emergency, to pay for medicine or hospital bills for example. Fadimata Moulaye reflects for a moment and then says, ‘But I hope it never comes to that.’ —

The programme contributes to the following United Nations Sustainable Development Goals (SDGs):



‘The women report that their children are now sick less often.’

FATIMATA KONÉ,
doctor and nutrition expert for Welthungerhilfe,
the project partner in Mali

Read interviews on food and nutrition security and enhanced resilience in Mali at akzente.giz.de/en

MULTISECTORAL APPROACH

GIZ is working in a number of areas to improve nutrition for people in Mali. The approach combines extensive activities in nutrition-sensitive irrigated agriculture and livestock farming, communication on healthy, diversified diets and water, sanitation and hygiene (WASH). Best practices at local level are shared with the relevant bodies and institutions and mainstreamed within the appropriate structures.

Contact: Raymond Mehou, raymond.mehou@giz.de

THE PROJECT IN MALI IN FIGURES

6,000 people

– half of them women –
have been trained in sustainable agriculture and in the cultivation of nutritious vegetables.

10,000 women

now enjoy a more varied diet. They used to face the threat of malnutrition.

Smart solutions

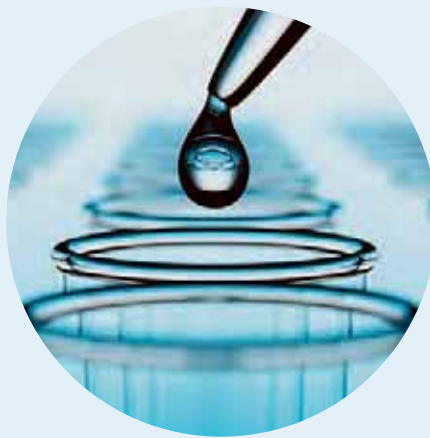
Four examples of how information and communications technology is improving agriculture in developing countries and emerging economies.



Digital harvesting assistant

ASIA Farmers usually club together to hire the expensive machines they need to harvest rice rather than purchasing their own. EasyHarvest is a new online app that can help them match up when they need a machine and when that machine is available to hire. The app, which can be used on a smartphone or computer, allows farmers and equipment

hire companies to work out how and when the machines can be used most efficiently and least expensively. During a pilot phase, the app saved farmers up to 10 per cent of their costs for the rice harvest. It also reduced post-harvest losses, which in Asia are estimated to be in the region of USD 3 billion per year, by two per cent. –



Information in every drop

MEXICO One of the main criticisms levelled at fish farms is that they damage water quality through the excessive use of fertiliser. Thanks to a smart new solution developed by a group of young entrepreneurs from Mexico, however, aquaculture businesses can now maintain their farms in tip-top condition. Their system monitors water quality continuously and records the data in real time, including pH levels, temperature, oxygen content and up to 14 other indicators. If the readings point to any deterioration in water quality, farmers can then take prompt action and prevent the spread of bacteria. Aquaculture operators have permanent access to their data through the app and an online platform. The system automatically generates a warning message if the maximum permitted values are exceeded. –

Fair distribution

NIGERIA In 2012, the Nigerian Government introduced an electronic voucher system for smallholders in response to frequent cases of attempted fraud. Digital vouchers are now sent to farmers by mobile phone and can be used to buy fertiliser and seed. The new system ensures that everyone receives the correct subsidised products. It is used by around 20 million people, roughly 90 per cent of the target group. According to one study, the e-vouchers have helped to boost the maize harvest, and consequently farmers' incomes, by over a quarter. –

Sharing knowledge by radio

ETHIOPIA Lysine and tryptophan deficiency is a common problem among people with maize as a staple ingredient in their diet, and one which affects women and children especially. Quality Protein Maize (QPM) is a hybrid that contains particularly high levels of these amino acids in order to prevent deficiency. In Ethiopia, a special radio series was created to inform people about the benefits of growing and eating QPM. Four local stations broadcast 320 episodes of an information programme in four of the country's key maize-growing areas, delivering valuable knowledge straight into the homes of 66 per cent of smallholders. Interest in visits to test sites increased as a result. –



Food waste vs. hunger

Millions of people are undernourished although tonnes of food are allowed to perish or are thrown away. That is an issue that concerns all of us.

By JESSICA VON BLAZEKOVIC,
Business and economics editor, FAZ.NET



Eat up! Think of the starving children in Africa.' This is something we probably all heard as children. Today, thankfully, many parents have come to realise that it is wrong to force children to eat. The fact that little Noah in Berlin has eaten all of his mashed potato will have no bearing whatsoever on whether or not a child in Ethiopia goes to bed with a full tummy. Anyway, it is adults who should take to heart the philosophy from child-rearing practices of the past. It is estimated that 1.3 billion tonnes of food end up in the bin every year worldwide – that is one third of total food production. The German Federal Ministry of Food and Agriculture (BMEL) reckons that in Germany alone,

12 million tonnes of food are thrown out every year – more than half by private households.

In view of the fact that about 700 million people in the world go hungry (a number that has been rising again since 2014), that is more than just an ethical problem. Although the causal link between the wasteful lifestyle in industrialised nations and hunger in developing countries has not yet been proven, organisations like Welthungerhilfe do believe that our behaviour influences the ability of people in other parts of the world to access food reliably.

‘The fact that little Noah in Berlin has eaten all of his mashed potato will have no bearing whatsoever on whether or not a child in Ethiopia goes to bed with a full tummy.’

According to the figures from the German Federal Statistical Office, some two thirds of the farmland needed to produce food for German consumers now lies outside Germany. So, the greater the demand is in Germany for food, the more farmland in other countries will be used to grow export crops, meaning that it is not available to feed the local population. When farmland becomes scarcer, food prices also rise, making it even more difficult for people in developing countries to access food. ‘Land grabbing’ is a term we often hear in this context, when international investors buy farmland to grow cash crops. These are lucrative crops such as soybeans or maize that are grown purely for export and not to feed the farmers themselves.

Climate change is making global hunger worse. From Asia to Africa, it is destroying the livelihoods of millions of people as soils become eroded and droughts and other extreme weather events make it more difficult to grow food. And here too, food waste plays a part. It is estimated that the carbon footprint of food waste totals 3.6 gigatonnes of carbon dioxide every year, meaning that its contribution to global warming is almost comparable to that of global road traffic.

No, people in Germany cannot end hunger in the world just by throwing away less food. The issue is a lot more complex; fragile states, crises and conflicts, difficulties in storing and distributing food – all of these elements play a part. But much points to the fact that the way we deal with food is a large part of the problem. That is why all of us, and not just Noah in Berlin, should become part of the solution, and eat in moderation. —



Fix the system!

Millions of people go to bed hungry every night. With enough food on our planet to feed everyone, this need not be the case. The African scientist **Jemimah Njuki** explains how this could be changed and why women have an important role to play.

Illustrations FLORIAN BAYER

In September this year, the world will meet for the first UN Food Systems Summit. And one of the things this gathering will show is that our food system is broken and needs to be fixed! Unequal, unsustainable, and unable to feed the world – that sums up the current state of our food systems pretty well. The Summit is expected to come up with solutions and commitments to ensure that we can deliver healthy diets and adequate livelihoods for all.

At the moment this is not the case. As a matter of fact, we are living in a parallel world where too many remain hungry while a growing number of people are suffering from obesity. Two billion people, or close to 26 per cent of the global population, experienced hunger or did not have nutritious and sufficient food regularly in 2019; 690 million people are undernourished. And while in absolute numbers most of these were in Asia, Africa is projected to have the largest

IN THIS ARTICLE

1. STATUS QUO

Unequal and unsustainable – what is wrong with the global food system.

2. WHAT ARE THE PROBLEMS?

Climate damage, the pandemic and unequal distribution are all fuelling global hunger.

3. WHAT CAN HELP?

Promotion, education, investment – how we can put an end to the greatest avoidable scandal of our times.

proportion of undernourished people in 2030. At the same time, the world continues to lose or waste about a third of all food between the farm and the plate.

Give power to women

There are many reasons for this broken system. Gender inequality is one of them. Women have a 13 per cent higher chance of suffering from moderate or severe food insecurity than men. Another key challenge is access to a healthy diet that provides adequate calories and nutrients and includes diverse foods from several different food groups. Such diets cost, on average, five times more than food that simply provides enough calories. Also, nutrient-rich diets are generally less available and affordable. In Africa, 965 million out of 1.35 billion people cannot afford to eat healthily.



Ironically, those who produce our food are among the hungriest. There are 500 million smallholder farms worldwide. They produce about 80 per cent of the food consumed in Asia and sub-Saharan Africa; women comprise 43 per cent of the agricultural labour force on these farms. Despite their important contributions, smallholders and farm workers often suffer from malnutrition and have no access to healthy diets. They literally go hungry next to the field.

There are also concerns about the growing inequities within the global food system. Smallholder cocoa farmers in Côte d'Ivoire, for instance, are poorer now than they were in the 1970s or 1980s despite the fact that the chocolate industry is worth more than USD 40 billion a year. Smallholder farmers only capture about six per cent of the turnover of the industry, even though they produce a large proportion of the yields.

Harmful to the climate

The current food system also adversely affects the environment and the climate. As a matter of fact, agriculture generates between 10 and 14 per cent of global anthropogenic greenhouse gas emissions. The Food and Agriculture Organization of the United Nations (FAO) estimates that the social costs of emissions associated with current dietary patterns will exceed a staggering USD 1.7 trillion per year by 2030.

But that's not all: this shattered system has had to cope with the additional burden of the COVID-19 pandemic, which has caused shocks to both the supply and the demand side throughout the world. On the supply side, disruption to food and input supplies between and within countries, the closure of markets and shortages of labour

'Ironically, those who produce our food are among the hungriest.'

are reducing access to food. On the demand side, the loss of jobs and increased domestic care work (like home schooling), particularly for women, are reducing peoples' purchasing power.

So, we are facing a severe crisis that has been worsened but not caused by the COVID-19 pandemic. This makes it all the more urgent to remedy the situation. But what will help? What really needs to be done to end hunger and other forms of malnutrition in the world, while transforming the system to provide all people with affordable and healthy diets in a sustainable way?

Ensure a minimum

A report entitled 'Ceres2030' shows that changes in agriculture will only work if some basic minimums are ensured: producers need to have at least a minimum level of income and education; they need access to networks and resources such as extension services and robust infrastructure including improved markets and roads.

Against this background, it makes more sense to engage in multiple actions rather than single interventions aimed at individual objectives. That means, for example, improving farmers' livelihoods by promoting crops that are both in demand and climate- and pest-resistant, while facilitating their access to markets. In Kenya, for instance, there is increasing demand for sorghum, not least on the part of the brewing industry. Sorghum is higher in nutrients than maize and also climate-resistant. Nonetheless, it is not widely grown in the country.

Evidence also shows that membership in farmers' organisations leads to higher income. A comparison of data from 24 countries, mostly in Africa, indicates that mem-

bership of such organisations was associated with positive effects on income in 57 per cent of the cases reviewed. These interventions must, however, be accompanied by important services such as extension services that meet the needs and priorities of different types of farmers, including women. They should also include market analyses such as price information, and weather forecasts – activities that help to manage production risks. Very importantly, these services must be economically viable for farmers.

The changes and investments we need to make in the food system have to go beyond the farm and across multiple value chains. According to an FAO-commissioned study, around one third or 1.3 billion tonnes of food produced for human consumption are lost or wasted globally each year. There is evidence that better storage, such as the use of airtight bags and containers, can effectively reduce post-harvest losses for cereals and pulses. Other technologies are effective at reducing losses of fruits and vegetables including local processing, better handling practices, improved packaging, more careful timing of the harvest, and cold storage.

Using plastic crates, liners for containers, and smaller containers for the packaging and transportation of tomatoes, guavas and cabbages can reduce damage by 30 to 60 per cent as studies have shown. Technological improvements must go hand in hand with the development of local food systems that

‘Technological improvements must go hand in hand with the development of local food systems.’

shorten the distance between producers and consumers by, for instance, building markets and processing factories close to where food is produced.

Social transfers to the rural poor

Social protection policies are also central because they help to increase the purchasing power of vulnerable populations. This way they can better afford to buy healthy foods instead of consuming nutrition-poor diets. Social safety nets in the form of cash transfers, food stamps, or vouchers for people affected by hunger are examples that go in that direction.





In the Global South, small and medium-sized enterprises are very common and play a critical role in the food system. Although they have mistakenly been referred to as the ‘missing middle’ in developing countries, they are in fact very much present, active and dynamic in the food-producing industry. And they have an even greater potential: millions of them are needed in transportation or processing, and they can promote inclusion of the rural poor.

In Africa and South Asia, midstream activities already represent a substantial portion of the agri-food sector, ranging from 25 per cent of the GDP in countries like Rwanda to 60 per cent in middle-income countries like Egypt and Indonesia. In Africa, up to 64 per cent of domestic food supplies are handled primarily by small and medium-sized enterprises.

Additionally, gender and equity matter for the way we feed the world – first as a human rights issue because women deserve the same access to nutrition as men. And secondly, because the system can only be fixed if women’s role in agriculture is strengthened. If women have equal rights, they can boost production significantly. The future must be just and equitable.

Communities, households and individual men and women must be enabled to produce enough food for their own populations using environmentally sound processes, while also being able to participate in local, regional and global food trading systems. Trade agreements such as the new African Continental Free Trade Area agreement include a gender objective that recog-

nises the full, equal and meaningful participation of women in an integrated continental market. That is very encouraging for the fight against hunger.

Equal pay and access to financial services

It is critical to guarantee land rights to women and transform finance systems (beyond microcredit) so that they serve female smallholder farmers, owners of small businesses and other women actors in the food system. For women workers in the food industry, it will require gender standards that include workplace dignity and equal pay (with monitoring and accountability mechanisms) – whether it be large farms, food factories or the service industry. In the United States for instance, women working in food processing made 74 cents to the dollar compared to men in 2019. And the situa-

tion is similar in most countries. That is not only unfair but also counterproductive.

There are inherent power dynamics in the food system, especially between global players and local producers, that must be addressed so that more of the added value goes to the producers who are doing the most work in keeping the world fed. This should be done by ensuring fair prices for smallholder farmers and open and transparent trade regimes between countries and actors in the market system.

Consumers also have a big role to play in ensuring healthy populations. It is important to recognise that national food systems in low- and middle-income countries are transforming rapidly from traditional to modern. That holds true for most African countries for instance. In this transition, nutrition education and campaigns on healthy diets are a critical part of ensuring that populations stay healthy. A good example is the 'we are what we eat' campaign in Tanzania that reaches out to the population through different communication channels. Equally important is the role of dietary guidelines. With the support of CGIAR's Agriculture for Nutrition and Health programme, Ethiopia has now developed its first-ever food-based dietary guidelines. They provide concrete recommendations on types of foods and food groups to be eaten regularly to promote health and prevent chronic diseases.

Investing more money

And last but not least, the fight against hunger needs more investment. The 'Ceres2030' report recommends an additional USD 14 billion per year on average to end hunger by 2030 and double incomes of small-scale producers in low- and middle-income countries. That seems a reasonable sum compared to the trillions of dollars profit the industry makes year by year.

It is more than obvious that the present way of producing and consuming food serves neither the global population nor the environment. It must change. The good news is that change is possible. We have the

'The good news is that change is possible. We have the means and the know-how to alter the dysfunctional food system we have now.'

means and the know-how to alter the dysfunctional food system we have now. Let's tackle it! Let's seize the moment! The first half of the 21st century should be the one that ends hunger and malnutrition once and for all, because it is the greatest avoidable scandal of our times. The Food Summit in September offers the perfect opportunity to really get going. —



JEMIMAH NJUKI is Director for Africa at the International Food Policy Research Institute and Custodian for Gender and Women's Empowerment at the UN Food Systems Summit 2021.



Hunger – no end in sight

With the goal of zero hunger at risk, could the pandemic also mark a turning point in our approach to global food security and nutrition?

Terminology 101

Hunger describes the subjective feeling that people experience after a certain time without food. It is mostly equated with the terms food shortage or chronic calorie deficit (undernourishment).

Malnutrition encompasses undernutrition, overnutrition and **hidden hunger** (a lack of vitamins and minerals).

Undernutrition is the result of a lack of food and/or poor health and hygiene conditions that prevent the body from properly absorbing and using the nutrients in food.

Overnutrition occurs when the intake of food energy continuously exceeds requirements. Source: GIZ

The double burden of malnutrition

Overnutrition and undernutrition are both found at every level of society in a third of the world's poorer countries. Developing countries and emerging economies now account for roughly two thirds of all those who are overweight.

Sources: FAO Statistics, BDI



Happy without meat

The number of vegetarians is growing worldwide. In 2020, India was the global leader in this respect, with vegetarians making up 38 per cent of its total population. Source: Statista

A heavy price to pay

According to estimates, if we do not take action to change our global food systems, the health costs linked to unhealthy diets could reach USD 1.3 trillion per year worldwide by 2030.

Source: SOFI 2020



**TEMPORARILY
CLOSED
DUE TO COVID-19**

Lockdown effects

At the height of the school closures in late May 2020, 368 million children worldwide had to manage without the daily school meals they rely on. Source: World Food Programme

A healthy diet? Priceless!

It has been estimated that over three billion people around the world cannot afford to eat a healthy diet. The cost of doing so is well above the internationally agreed poverty level of USD 1.90 per day. A healthy diet contains a balanced, diverse and appropriate selection of foods and that meets the body's requirements for macronutrients (proteins, fats and carbohydrates) and micronutrients (vitamins and minerals). Sources: SOFI 2020, WHO

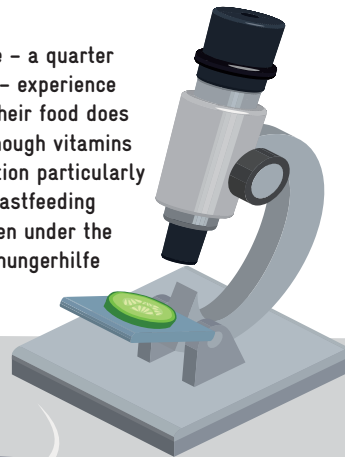


Supply chains

40 per cent of all food in the world's poorest countries is lost or wasted on its way to the consumer, mainly due to inadequate storage, refrigeration, packaging, infrastructure and transport systems. Source: BMEL

Hidden hunger

Nearly two billion people – a quarter of the global population – experience hidden hunger because their food does not provide them with enough vitamins and minerals. This condition particularly affects pregnant and breastfeeding women and young children under the age of five. Source: Welthungerhilfe



‘Not enough food and not healthy enough’

Agnes Kalibata is a food and nutrition security specialist and a former Minister of Agriculture in her home country, Rwanda. She currently leads the Alliance for a Green Revolution in Africa and is the United Nations Secretary-General’s Special Envoy to the Food Systems Summit that will be held in September. In this interview, she explains why it is essential to look at these systems as a whole.

Interview: Friederike Bauer

Due to the coronavirus pandemic more people are starving again. What do you foresee for the near future?

The UN estimates that an additional 130 million people are going hungry because of the pandemic. That is a nightmare because it adds to a situation that was already grim before the outbreak. COVID-19 happened on top of a pre-existing crisis.

It used to be said that the Earth could feed all people if the system was working properly. Does this paradigm still hold true?

There is no doubt that the world can produce enough food for the roughly 7.7 billion people living today. It is a matter of access to, and the quality of, nutrition. Right now our food systems are not delivering, not providing enough food for everyone. And the food people do get is not healthy enough. Plus, we are stressing the environment. Therefore, we need to transform the whole system and make it more sustainable in various ways.

The first UN Food Systems Summit will take place in September. What tangible results are you hoping for?

We have set ourselves five objectives: ensure access to safe and nutritious food for all; shift to sustainable consumption patterns; boost nature-positive production; advance equitable livelihoods and build resilience to vulnerabilities, shocks and stress. But it is just as important for me to get the message out that our food system in its present form is broken.

Get the message out to whom exactly?

To everyone: those involved in food production, marketing, distribution and sales just as much as end consumers. Each of us makes a decision three times a day if we are lucky. Shall we eat meat? Shall we eat water-intensive vegetables from other parts of the world? These are little decisions by themselves but taken together they influence the system.

You did not mention waste. How big a problem is that?

It is an enormous problem. The food we are wasting is equivalent to one trillion dollars a year. Food waste also contributes eight per cent to harmful greenhouse gas emissions. Just imagine! If we could solve the waste problem, we could feed many more people without creating additional emissions.

Talking about emissions, climate change is already under way. What impact will that have on the availability of food?

We talk a lot about the pandemic, but dealing with climate change is also critical. There will be more droughts and cyclones, which will influence the availability of water. Agriculture depends heavily on a steady supply of water. The challenges are not the same everywhere, but they have to be tackled everywhere. Otherwise the food crisis will get worse.



AGNES KALIBATA

Rwanda's former Minister of Agriculture has served as President of the Alliance for a Green Revolution in Africa (AGRA) since 2014.

‘The food we are wasting is equivalent to one trillion dollars a year.’

The international community has been fighting hunger for many decades. What is different now from earlier approaches?

It's true. The first summit talking about zero hunger was in 1973, and not enough has changed since. Part of that is due to conflicts that almost always go hand in hand with starvation and hunger. We need governments and the international community to prioritise this double scourge. The other impact has been climate change, which impedes small farmers even more from producing enough food.

Productivity in Africa is quite low. How could it be increased?

The majority of African farmers are small-holders, who need to be supported because

they can make a real difference. Admittedly, it is not an easy task to get a farmer with 1.3 hectares to be more productive, but it's not impossible. Each country needs to look at its food system, see what is broken and then fix it. What is needed, above all, is a change in the way decision-makers think.

Is it correct that Africa has the highest potential worldwide to increase food production?

Yes, but productivity can be increased in other places as well. In Africa, however, we do see a number of favourable factors. It has a lot of uncultivated land, in many parts plenty of water and an abundance of workers. That opens up great perspectives for ag-

ricultural activity – if it is accompanied by the right policy frameworks.

A number of reports suggest that fixing the food system is not that expensive. It would cost an estimated EUR 28 billion a year to end hunger.

The costs of managing the impacts of hunger are definitely higher than the costs of dealing with hunger itself. But just designing food security programmes won't be enough. It's about building sustainable economies that give people decent wages so that they do not fall back into hunger.

What can institutions like GIZ do to help achieve worldwide food security as quickly as possible?

Keep the programmes to strengthen food security that GIZ is already engaged in, but double down on supporting governments. Fighting the structural deficiencies behind food shortages is as important as solving the glaring problem of hunger and undernutrition. —

The bigger picture

Investing in good nutrition is one way to leverage sustainable development. GIZ's work in this area is based on establishing networks and finding digital solutions, with a focus on women and young children.

By ALBERT ENGEL

Food and nutrition security is a human right – and one with far-reaching implications. Ensuring that all children, women and men have a nutritious diet is a crucial step towards sustainable development. By contrast, the consequences of malnutrition are devastating and can lead to those affected falling ill and becoming weak. A country in which many people cannot work because of their poor nutritional status cannot realise its full economic and social potential.

Food and nutrition security plays a key role in development cooperation and is therefore an important aspect of GIZ's work. The links between famine relief, transitional aid and long-term development were clear to us even back in the late 1980s. To initiate the fundamental changes required, we need to take a broader view and ask the right questions. Who has access to land and water? Under what conditions are smallholders able to produce their crops and access markets? How much do people know about nutrition and hygiene? What investments will make the most impact? We learned a great deal from those early and predominantly local development projects. We know that long-term success depends on working at every level – local, regional and national – in our partner countries.

Between 1990 and 2014, we made tremendous progress. Worldwide, the number of people suffering from hunger declined. Since then, however, the figures have gone back up. Today, one in every nine people goes to bed hungry. The situation has been exacerbated over recent years by wars, conflicts and the resulting movements of refugees, by climate change and population growth, and now by the coronavirus pandemic.

In 2014, Germany launched a special initiative entitled ONE WORLD – No Hunger in order to strengthen its existing



ALBERT ENGEL

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activities around the world. BMZ invests around EUR 1.5 billion in the priority areas of food security and rural development each year. These are areas in which GIZ and its predecessor organisations have spent decades forging a network together with its partners.

More recently, our work has focused on pregnant, breastfeeding and young women. Studies show that the first thousand days of a child's life are crucial to its future development. Good nutrition in early infancy (and indeed before birth) prevents severe developmental disorders that can lead to a vicious circle of poverty and undernutrition, with consequences that can even affect subsequent generations. Well-nourished and healthy infants and young children are important to the future prosperity of their society. In Tajikistan, for example, where one in every five young children is undernourished, we are working with the country's Ministry of Health to ensure that young women learn more about nutrition. This project has involved training health advisors and developing an e-learning tool.

Digital solutions have proven to be invaluable during the COVID-19 pandemic, allowing national and international experts to collaborate on data evaluation projects despite restrictions on travel. Digital tools generally make it much easier for us to compile and record information. When it comes to measuring the results of our food security projects, we use internationally recognised indicators. However, we also aim to break new ground, for example with the development of the Minimum Dietary Diversity for Women indicator, which involves asking women what they ate the previous day. If the food they consumed included at least five out of ten defined food groups (e.g. vegetables, nuts and products of animal origin), it can be assumed that they have a good diet. GIZ was one of the first organisations to use this indicator in collaboration with the Food and Agriculture Organization (FAO).

Another important new indicator, largely developed by the German humanitarian aid organisation Welthungerhilfe, is the Child Growth Monitor. A mobile app can be used to identify signs of malnutrition. Instead of using scales to weigh a child or a special tape to measure the upper arm circumference, the Child Growth Monitor relies on photographs taken using an everyday smartphone. Although the app was developed before the coronavirus pandemic, it is currently proving extremely useful as it allows health care teams to continue monitoring the development of boys and girls while maintaining the required distance to prevent the spread of infection.

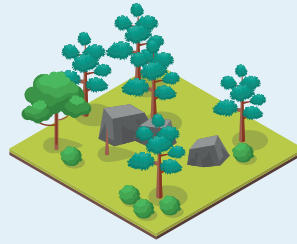
We continuously adapt our work to the new challenges we face, review our approaches with a critical eye and explore different paths where appropriate, with the ultimate goal of helping more children, women and men to eat healthily as a prerequisite for sustainable development. That is what drives us. —

Many paths, one goal

GIZ takes a broad-based approach to global food and nutrition security.

Political will

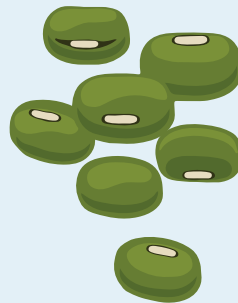
A huge international effort is needed if we are to meet the United Nations Sustainable Development Goal 2, namely ending hunger, ensuring access to nutritious food and promoting sustainable agriculture. All this can be achieved only if political will is matched by effective implementation. GIZ works at every level, from local to national, measuring data and establishing the facts we need to show us the way forward. —



ECOSYSTEM Forests play an important role in terms of food and nutrition, with a fifth of the world's population dependent on them for their livelihood. They also help to regulate the temperature, provide water and preserve biodiversity. As part of BMZ's ONE WORLD – No Hunger initiative, the Forests4Future project promotes sustainable forestry and the creation of new forest areas in Ethiopia, Madagascar and Togo. —

3.7 million

GLOBAL The Food and Nutrition Security, Enhanced Resilience programme commissioned by BMZ works on various fronts to bring about long-term improvements in the nutritional situation of people across Africa and Asia. Its activities are designed to meet specific local needs, for example by supporting smallholder farming and strengthening health care provision and hygiene practices. Those most at risk – such as the poor, women and children – are given help to ensure they have access to nutritious food. The programme aims to improve the nutritional situation of 3.7 million people in 12 countries by 2025. —



More protein, fast

EMERGENCY COVID-19 SUPPORT PROGRAMME As part of BMZ's response to the COVID-19 pandemic, GIZ has distributed mung bean seeds to over 3,000 households in Benin. Agricultural extension officers were given training in how to cultivate this protein-rich legume. Since it only takes around 50 days before they can be harvested, mung beans therefore help to provide food security in times of crisis. —

150 schools

CHILDREN Many boys and girls in Malawi go to school on an empty stomach. Healthy school meals not only help them to concentrate better in lessons, but also act as an incentive to attend. GIZ supports the efforts of 150 schools to grow and prepare their own food, while also advising on good nutrition and hygiene. The project was commissioned by BMZ and is cofinanced by the EU. It also invests in sanitary infrastructure to prevent the spread of disease. —

Building up know-how

KNOWLEDGE To achieve the goal of improving nutrition for everyone, we need more and better information about appropriate solutions. That is where the Knowledge for Nutrition (K4N) programme comes in. GIZ's role here is to evaluate scientific data and pass our findings on to BMZ as the commissioning party and the project's other funding provider, the EU. Equipped with this increased knowledge, they can then decide on the most effective approach to eradicating hunger and malnutrition. —





Greener and greener

INNOVATION Lettuces, lettuces, as far as the eye can see. Basil, tomatoes and other vitamin-rich foods are also sprouting up here, at the largest hydroponic farm in southern Europe. The one thing you won't find in these giant halls in Tuscany is soil. The roots of the plants dangle directly in a mixture of water and dissolved nutrients. The advantage of the hydroponic system is that the plants need as much as 90 per cent less water than they would when grown by conventional means, and only about a fifth of the space. This method of cultivation is therefore particularly well suited to regions where water is scarce.

Photo: Alberto Bernasconi/laif

THROUGH THE EYES OF A CHILD

Stray dogs, muddy paths and dangerous crossings are just some of the challenges Ukrainian children face on their way to school. Now those living in the city of Zhytomyr have a safer journey – and the entire community is thinking about mobility.

TEXT EUGENIA KUZNETSOVA PHOTOS MARIA VARENIKOVA

The sun has just come up, but the day remains grey and gloomy. Fields of wheat rustle in the wind beside the unpaved road, which is overgrown with weeds. Valeria, a 16-year-old schoolgirl, is walking along hand-in-hand with her younger brother Nikita. They take this route to school every day – roughly three kilometres there and three kilometres back. But next year, once Valeria has left school, Nikita will have to make his own way across fields, narrow bridges and busy roads. ‘In winter, it’s already getting dark by the time we set off for home,’ says Valeria. ‘It’s cold, and a bit scary sometimes.’ There are no school buses in this part of Ukraine.

Valeria and Nikita live in Veresy, a village in central Ukraine that has now been absorbed into the municipality of Zhytomyr as part of the municipal reform process. Their secondary school is on a busy road on the outskirts of the city. It is one of four local schools taking part in Get to School Sustainably, a project being implemented by GIZ as part of the Transformative Urban Mobility Initiative (TUMI). The German Development Ministry is one of the partners supporting TUMI to boost sustainable urban mobility and mitigate climate change.

TUMI ran competitions for a pilot project, and Zhytomyr is one of 20 cities in total around the world that were selected to take part. Once it received the funding, the Ukrainian municipality immediately set to work on a mobility plan for the selected schools. School principal Olena Kulinitich says, ‘I think it is important to involve everyone in dialogue. This was the first time we had been invited to a discussion of this kind as partners.’ Schoolchildren and their teachers discussed the problems and worked with engineers and local authorities to plan improvements. It was a radical change in the usual pattern of communications in Zhytomyr.

Those involved worked together to set up local mobility committees and walked to the four pilot schools, which are spread across the city. They were keen to assess for themselves the difficulties children faced and to use them as the basis for setting the project’s priorities. One mobility committee, for example, immediately got the local animal protection organisation involved to tackle the stray dogs that barked at children on their way to school. It was the first time this issue had ever been highlighted.

The project emphasises the importance of seeing safety issues through the eyes of a child. Experts followed the children to find out what worried them most as they made their way to school. And there

Through the eyes of a child



TRANSPORT EXPERTS

Valeria and her brother Nikita on their way to school: they and many other children and young people in Zhytomyr have shown planners where changes were needed on the roads.



The city's mobility committees listened to school pupils to identify particularly dangerous spots.

Above right: Vitja and his mother on their way to school; cycling alone would be too dangerous.

Below: The city now has interactive speed displays.



Find out more about the mobility programme in a video on the akzente website: akzente.giz.de/en

The project contributes to the following United Nations Sustainable Development Goals (SDGs):



were some quite surprising findings: the adults were sometimes unable to see a problem, but the children showed them how unpleasant or even dangerous it felt to walk or cycle. Guided by the children's insights, the mobility committees identified dangerous junctions, located sites where speed bumps could be installed to reduce traffic speed, and categorised the most problematic spots on the school routes. 'TUMI is encouraging us to develop an overall mobility strategy,' says Deputy Mayor Svitlana Olshanska. 'We want a comprehensive strategy, not just solutions to specific problems.' Some minor changes were made immediately, such as making crossings safer and removing obstructive trees. Other measures will take longer, though – and will require investment.

'Cycle paths would be cool.'

The children also helped the planners identify the best places for speed restrictions, speed bumps and digital speed displays. These 'smiley face' signs, which display drivers' speed accompanied by an appropriate facial expression, are something entirely new for Zhytomyr. Two have so far been installed near schools. And by the time the project is completed in 2021, there will be new pavements, further improvement to crossings, and more speed control measures.

The majority of children used to walk to school. Despite having bicycles at home, most of the children are unable to use them because cycling is too dangerous. Some do take to two wheels, though; Vitja is a pupil from Veresy and says, 'It takes me 40 minutes to walk to school but just 20 minutes by bike. Cycle paths would be cool.' Vitja is lucky – his mother works at the school he attends, and they usually cycle there together. Otherwise, things would be very difficult for him. There are still a number of stray dogs along the route, and the road is unpaved and freezes over in winter. In any case, it's better to cycle with someone else.

Cycling infrastructure is one of the project's main priorities, because cycling is a good option in such a relatively small city as Zhytomyr – and it's sustainable. Previously, children who cycled to school had nowhere to park their bikes and so had to leave them outside nearby shops or simply on the street. The pilot schools have since had bike racks installed on their premises, and this has increased the number of children who cycle to school. In fact, twice as many students now do so – and they have already requested yet more covered cycle racks.

The children are also learning how to be more visible and cycle safely in traffic and at junctions. Dozens of voluntary helpers have been involved in running training at all of the project's pilot schools. Irina Shuravska, a teacher at School No. 36, says, 'I found it so inspiring, I rode to school myself. That's nine kilometres!' Further investment in cycling infrastructure is needed, but the city's road improvement plan now also includes new cycle paths and safe pavements.

Citizens are actively involved

'What's great is that the children pass on what they learn to their parents,' says police officer Tetyana Kryvenko, who helped train boys and girls at one of the pilot schools. 'Many of them have asked their parents for high-vis jackets, for example.'

But the project is not just about improving infrastructure. Another focus is on attitudes – and that includes everyone involved. It is important that the children learn and understand how to behave more safely, which is why it is also crucial that they are involved in mobility planning. At the same time, infrastructure needs to be adapted so that responsibility for their safety does not rest entirely on the children's shoulders. Meanwhile, parents and school staff realise that they have a right to be involved in local infrastructure planning. And local authorities have seen citizens become more actively involved and be keen to help redesign public space: since information about the project was posted on social media, the mobility committees have submitted more than 50 enquiries and requests.

The crossing near the school that Valeria and Nikita attend has already been rebuilt, and improved speed restrictions are now in place. In a year's time, when Nikita will be going to school on his own, there will be speed bumps and more traffic signs, too. 'Our route to school is becoming safer. After all, the roads shouldn't just be for cars,' says Valeria. —

MOBILISING FOR CLIMATE CHANGE

Sustainable urban development is crucial to meeting the **Paris climate targets**. Following the UN Habitat III conference in 2016, BMZ therefore launched an initiative in the area of **sustainable urban mobility and climate change mitigation** – the Transformative Urban Mobility Initiative (TUMI). Working with **eight international partner institutions** (development banks, think tanks, NGOs and urban networks such as C40 Cities), GIZ and KfW support towns and cities in developing countries and emerging economies in designing sustainable transport systems. TUMI also involves other experts from universities (including Harvard, University College London and the London School of Economics), development banks (including the World Bank and the Islamic Development Bank), private companies and foundations. Almost **3,000 experts and managers** have already received training in the areas of mobility and urban planning, and support has been provided to **20 innovative projects in 17 countries**. And more than **EUR 2 billion** has been invested in building sustainable transport infrastructure and mobility services.

Contact: Daniel Ernesto Moser, daniel.moser@giz.de



'Uncontrolled growth of towns and cities means municipalities need a lot of expert input to make transport planning sustainable.'

DANIEL ERNESTO MOSER,
Management Head of the Transformative Urban Mobility Initiative (TUMI).

Read an interview with him at
akzente.giz.de/en



GROWING TOGETHER

They build bridges between development cooperation and the promotion of foreign trade and advise local, German and European companies in 30 countries. A successful mentoring programme in South-East Asia illustrates what Business Scouts for Development do.

TEXT MATHIAS PEER PHOTOS AUNG NAING OO AND TIM WEGNER

‘Exchange on equal terms’

SOPHIE LWIN-WALDSCHMIDT (33)
was the Business Scouts for Development expert responsible for the mentoring programme in Myanmar.

This article was written shortly before the military coup in Myanmar and the violent attacks on peaceful demonstrators. As akzente went to press, all those we interviewed were safe and well.

I’ve been helping German companies in Myanmar to become involved in sustainable local projects since 2017. As part of the Business Scouts for Development programme, I worked as an integrated expert for the Delegation of German Industry and Commerce until the end of February 2021. Together with my colleagues in the Delegation office, I gave a lot of thought to how we could deepen personal exchange between Myanmar and German entrepreneurs. We came up with the idea of launching a mentoring programme to enable representatives of German and other international companies to support and advise young local entrepreneurs. That’s a relatively unfamiliar approach in Myanmar, so I was surprised how much interest there was. We had initially planned to take on just five young entrepreneurs as mentees, but we had so many good applications that we ended up with 12. We focused on industry 4.0 because Germany is a major global partner in that area. Our priority was also to target women, and we succeeded: more than half of all our mentees are female. The scheme spans a wide range of sectors, from food production and tourism to medicine, ship-building and communications.

Right from the outset, we were clear that we wanted this to be an exchange on equal terms. We obviously wanted the mentees from Myanmar to benefit from the experience of their respective mentor, but we were also keen for the benefits to be two-way, with the mentors learning more about local market conditions. To this end, we held a joint networking event at least once a quarter, but the participants organised most of the mentoring sessions themselves. Some mentors and mentees were in almost weekly contact, and usually met face to face. I’m thrilled that the idea is being taken up more widely and similar formats are now being trialled in other countries. Laos, for example, has had a mentoring programme for female entrepreneurs for almost a year.’ —





‘We made valuable contacts.’

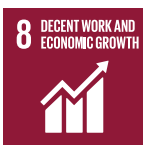
PWINT PWINT SAN (29),
*mentee and co-founder of the Hydro Plant
start-up in Yangon*

‘Most people in Myanmar earn their living from agriculture, but it’s far from easy. The soil is often too dry, for example, and many farming methods are now simply out of date. I saw first-hand how difficult many families find it to produce enough food when I was involved in a UN food security programme in Thailand after completing my MBA. The programme took me to a lot of villages in my home country.

Since then, my ambition has been to find technological solutions to help farmers improve their financial situation. I joined forces with two other young entrepreneurs as part of a start-up support programme. In just a few months, we developed a device to make farming smarter: it’s a controller fitted with a number of sensors that can measure temperature and humidity, for instance, or gauge how dry the soil is. We use this data to calculate the level of automatic irrigation or whether to turn on a fan if it’s getting too hot in a greenhouse. The settings can be adjusted using a smartphone app. The system not only saves a lot of the manual work involved in irrigation but also helps to optimise yields, for example by precisely regulating greenhouse temperatures. Mushroom growers are just one example of businesses using our device: it means they can continue producing at times of year when it is usually too hot to grow mushrooms. And the technology can also be used outdoors to monitor soil moisture and control how much water is needed for the crop being grown.

Our mentor, Manfred Gand, helped us enormously with developing the product. Initially, we planned to manage the device solely by smartphone. But Manfred encouraged us to fit it with its own display – and he was right. That makes it much easier to use. For a while, we met Manfred several times a month. He also put us in touch with many valuable contacts, such as electronics suppliers with a good reputation for quality. And I think he learned something from us, too: he was often surprised how quickly we were able to get our ideas up and running with limited resources.’ —

The project contributes to the following United Nations Sustainable Development Goals (SDGs):



The Hydro Plant smartphone app allows farmers in Myanmar to reduce the amount of water they use for irrigation and boost their yields.



‘I was very impressed by what the team had achieved.’

MANFRED GAND (58),
mentor and electrical engineer

‘I’ve been living in Myanmar for the past seven years, working on developing telecoms infrastructure. I’ve got more than 30 years’ experience as an engineer, and I’m really keen to pass on what I know to others. When I was asked if I would be interested in the mentoring programme for young entrepreneurs in Myanmar, I said yes immediately.

Even at our first meeting, I was very impressed by what Pwint Pwint San and her team had already achieved. The Hydro Plant smart controller, which is fitted with sensors, would undoubtedly cost a few hundred euros in Europe, but the entrepreneurs involved in the start-up managed to develop their system for a fraction of that, using open-source software and low-cost hardware modules. It was exciting to be involved.

At the beginning, the most important thing for me was to listen: there is still a lot I can learn in a country like Myanmar – and not just because agriculture was a whole new field for me. The project also involved me adopting a different perspective: as a German engineer, my priority is always to ensure the highest possible quality. But in Myanmar, even the very best technology is of no benefit if those working in agriculture can’t afford it. So optimising the cost of the individual components was a key issue in my discussions with Pwint Pwint San.

Sadly, our regular coffee shop meetings have come to an end, as I’m moving to the Philippines for professional reasons. But the coronavirus pandemic has shown us all that we can communicate just as well by video call, so we’ve agreed that we’ll keep in touch that way.’ —

INTERVIEW

'I have been particularly impressed by progress in the area of vocational training.'



Elke Peiler works for GIZ's Business Scouts for Development programme. Until recently, she was responsible for ExperTS, the programme that organised the mentoring initiative in Myanmar. She also completed an assignment abroad for the programme herself.

Experts are working in around 30 developing countries and emerging economies as part of the Business Scouts for Development programme, building bridges between the private sector and development cooperation. Why is this role so important?

Our aim is to make full use of the positive influence that private sector engagement abroad can have. To achieve that, our experts help in gaining access to often difficult markets, thereby creating new jobs locally and promoting value chains – and contributing to better living conditions across the country. But they also advise on improving environmental and social standards and make entrepreneurs aware of relevant funding programmes. And they support companies with making their plans for expansion as sustainable as possible.

What have been the programme's biggest successes to date?

I have been particularly impressed by progress in the area of vocational training. In cooperation with companies and local vocational training facilities, our experts have achieved a lot, especially in Latin America and

Asia, and have helped launch some new apprenticeships, for example in mechatronics. In a number of countries, the experts on our programme have also organised energy-saving workshops where employees of local businesses have formulated specific ideas for reducing emissions that they were able to implement directly in their own companies. Participants represented a wide range of different sectors, so the programme has had a direct, positive and measurable impact on the climate.

You used to work on the programme yourself, as an expert in the food industry. What was your experience?

I worked for the programme in Tunisia and found the work I did there really rewarding. For example, I was able to support Tunisian companies with exporting products such as dates and olive oil to Germany. That created jobs,

but I was also able to help mainstream organic food production standards more sustainably across the country. It's something special to see your work having such a direct impact.

ExperTS has been running for a decade already, but the programme is changing in 2021. How exactly?

We are combining ExperTS with other programmes doing similar work, such as one that has been supporting entrepreneurs in Germany in their dealings with developing countries and emerging economies. We're now called Business Scouts for Development and we create synergies to enable our experts to respond even more quickly and flexibly to enquiries. But of course their work in the individual countries of assignment will continue under the new structure. –

Contact: Elke Peiler, elke.peiler@giz.de



Smallholder Ko Lay has switched to hydroponic farming. Salad leaves grow in water in a system of pipes.



**‘I will soon
be able to almost
double my income.’**

KO LAY (40),
farmer in northern Yangon

‘I have always been very interested in plants, but it was only recently that I started working as a farmer. Before that, I made my living running a small shop. Eighteen months ago, I started growing vegetables in the north of Yangon, mostly cabbages and salad leaves, but have since added basil and peppers, too. I really enjoyed it from the outset, but I soon realised how hard it is to make a living from agriculture. Market prices fluctuate sharply, and tools and fertilisers cost a lot.

I looked around locally to see how I could improve things and saw the Hydro Plant system in operation on a friend’s farm. I was immediately taken with the idea and installed the technology in my own two greenhouses. It cost almost USD 500, equivalent to about two months’ income. I raised the money with a business partner.

Irrigation is now completely automatic – unless we have a power cut, when I have to water the crops myself. I can also regulate growing temperatures very precisely, and the controlled environment has enabled me to switch to hydroponics, where the plants grow in water mixed with nutrients as opposed to soil. I’ve only recently come across this technique. You have to be very precise in the amount of water and fertiliser you use, but it requires a lot less work, and yields are considerably higher than before. I think I will soon be able to almost double my income. And perhaps we’ll be able to afford another greenhouse, too.

Other farmers now often visit and want to learn from my experience. That really pleases me. Farmers in Myanmar are very open to new ideas if they can see that something works.’ —

EDITOR'S

Digital Picks

Thank you, Earth!

ACTION Campaigning for environmental protection is what Earth Day is all about. Every year, on 22 April (and beyond), individuals around the world take part in Earth Day activities. For further information and inspiration, visit the Earth Day website. Get involved! –

www.earthday.org



Zero hunger

TALKS How can we end global hunger? What impact does climate change have on our food? And what is the connection between nutrition and learning? This collection of TED talks provides answers and inspiration. –

www.ted.com/search?q=feed+the+future

Don't panic?!

PODCAST Talk less, act more? The 'How to Save a Planet' podcast does both. Each week, Alex Blumberg and Ayana Elizabeth Johnson introduce experts and initiatives in the area of climate change and ask, 'How bad is it?' The declared aim of the podcast is to keep airing until we have saved the planet. –

www.gimletmedia.com/shows/howtosaveplanet

Economic zeitgeist

BLOG Developing Economics tackles current phenomena in development economics, ranging from post-growth and 'angrynomics' to the economic impact of the pandemic on developing countries. Longer analysis pieces are intended to stimulate further debate within the academic community. –

www.developingeconomics.org

Just give me some peace

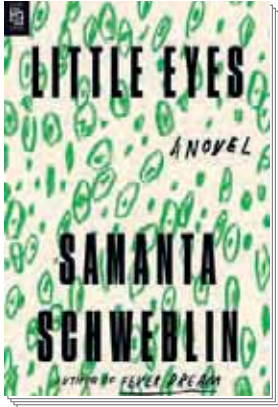
FORUM Germany's peace and security policy needs rethinking, and the PeaceLab discussion forum invites participants to do just that. PeaceLab seeks to identify specific and practical suggestions for the future direction of Germany's peace and security policy to enable it to tackle global challenges. –

www.peacelab.blog



GOOD READS

from around the world

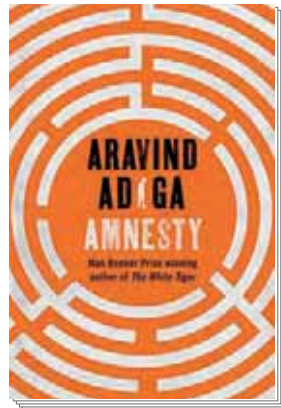


LITTLE EYES

An inventive small device called a 'kentuki' is controlled remotely by an unknown individual and tracks users' every move. Witty and poignant by turn, Schweblin's novel turns this account of voyeurism into a caricature of a globally controlled world that is careering out of control. Cleverly interwoven episodes set in different parts of the world make this a global novel. – *Ruthard Stäblein*

Samanta Schweblin, Argentina.
Translated from Spanish
by Megan McDowell.
Penguin Random House USA,
256 pages.

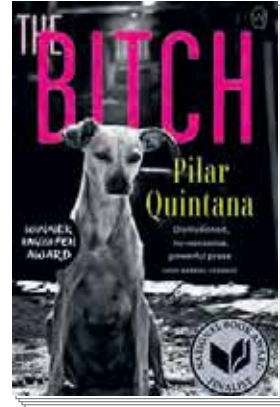
LITPROM RECOMMENDS
Litprom – the Society for the
Promotion of African, Asian
and Latin American Literature –
provided these reviews for
akzente. The titles were selected
from Litprom's list of the best
new releases.
www.litprom.de/en



AMNESTY

Sri Lankan Dhananjaya – known as Danny – is an undocumented immigrant in Sydney, where he scrapes a living as a cleaner. One day, there is a murder – and only Danny knows who the murderer is. But should he reveal what he knows when telling the truth means betraying himself? A fast-paced novel about morality as an existential dilemma. – *Claudia Kramatschek*

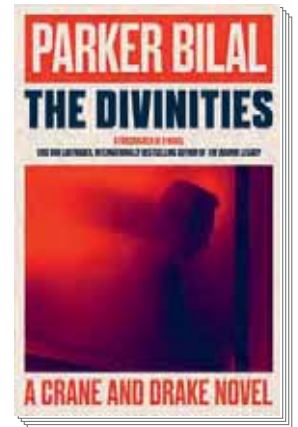
Aravind Adiga, India.
Published in English.
Picador, 352 pages.



THE BITCH

Damaris lives a pared-to-the-bone life somewhere between the Pacific and the jungle. Her greatest sadness is that she has no children. A puppy that she suckles at her own breast grows into an adult dog that prowls the streets – and becomes a mother. For Damaris, it is the ultimate betrayal. This is a primeval tragedy, marvellously recounted with detailed precision. – *Anita Djafari*

Pilar Quintana, Colombia.
Translated from Spanish by Lisa
Dillman.
World Editions, 120 pages.



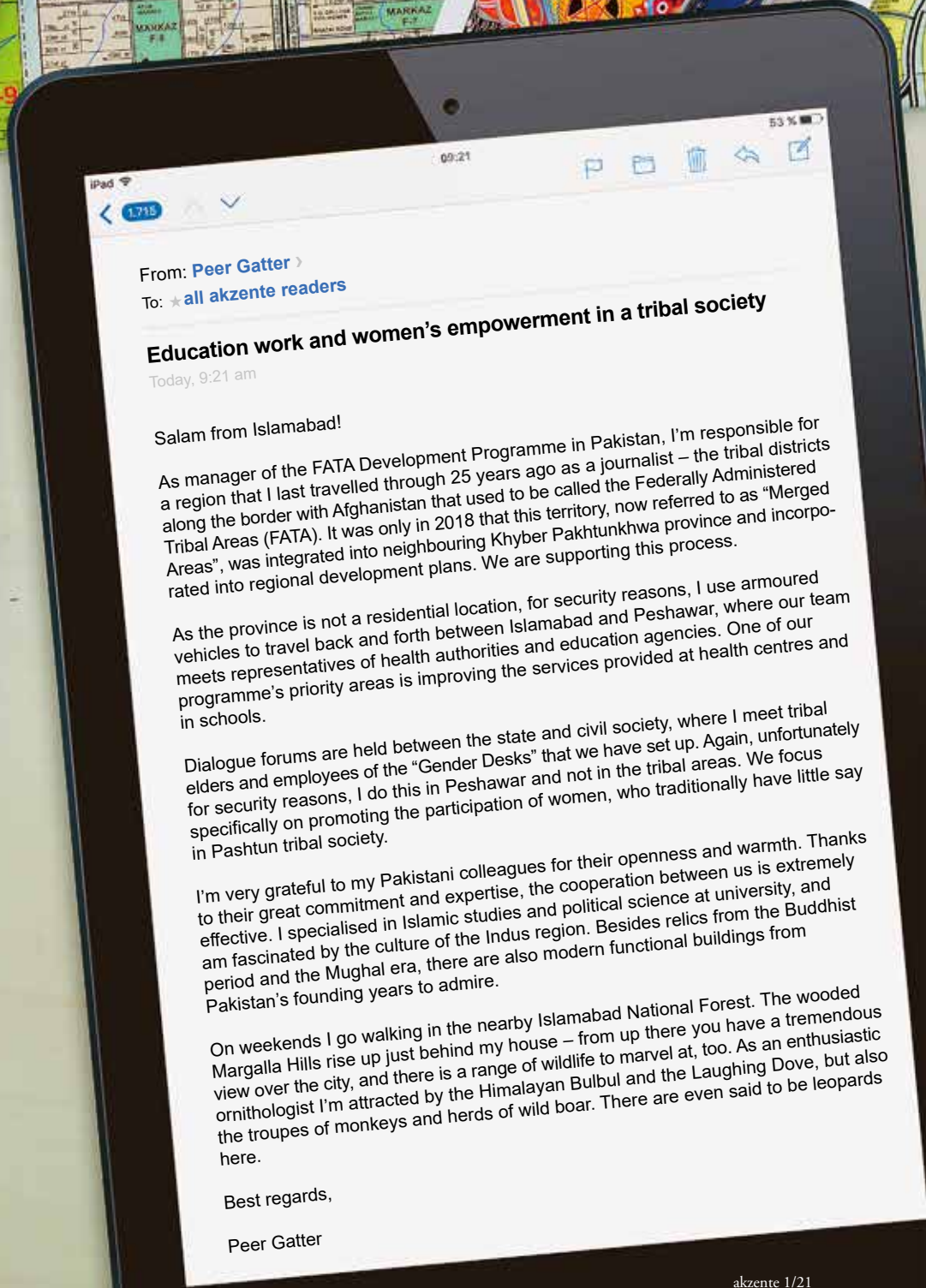
THE DIVINITIES

What do Islamists and British right-wing extremists have to do with a murder on a London building site? And is there a connection with Iraq? DS Calil Drake investigates, but a white colleague is out to bully him. Forensic psychologist Rayhana Crane offers support. A page-turning thriller, as multi-layered as it is complex. – *Andreas Fanizadeh*

Parker Bilal, Sudan.
Published in English.
The Indigo Press, 376 pages.



976. Common Tailorbird
 975. Rufous foreheaded Fantail
 1047. Yellow-bellied Fantail
 Male: tan tail; mask. Yellow eyebrow
 * Yellow on underparts looks brighter in field.
 S.E.A.



From: Peer Gatter >
 To: ★ all akzente readers

Education work and women's empowerment in a tribal society
 Today, 9:21 am

Salam from Islamabad!

As manager of the FATA Development Programme in Pakistan, I'm responsible for a region that I last travelled through 25 years ago as a journalist – the tribal districts along the border with Afghanistan that used to be called the Federally Administered Tribal Areas (FATA). It was only in 2018 that this territory, now referred to as "Merged Areas", was integrated into neighbouring Khyber Pakhtunkhwa province and incorporated into regional development plans. We are supporting this process.

As the province is not a residential location, for security reasons, I use armoured vehicles to travel back and forth between Islamabad and Peshawar, where our team meets representatives of health authorities and education agencies. One of our programme's priority areas is improving the services provided at health centres and in schools.

Dialogue forums are held between the state and civil society, where I meet tribal elders and employees of the "Gender Desks" that we have set up. Again, unfortunately for security reasons, I do this in Peshawar and not in the tribal areas. We focus specifically on promoting the participation of women, who traditionally have little say in Pashtun tribal society.

I'm very grateful to my Pakistani colleagues for their openness and warmth. Thanks to their great commitment and expertise, the cooperation between us is extremely effective. I specialised in Islamic studies and political science at university, and am fascinated by the culture of the Indus region. Besides relics from the Buddhist period and the Mughal era, there are also modern functional buildings from Pakistan's founding years to admire.

On weekends I go walking in the nearby Islamabad National Forest. The wooded Margalla Hills rise up just behind my house – from up there you have a tremendous view over the city, and there is a range of wildlife to marvel at, too. As an enthusiastic ornithologist I'm attracted by the Himalayan Bulbul and the Laughing Dove, but also the troupes of monkeys and herds of wild boar. There are even said to be leopards here.

Best regards,
 Peer Gatter

GIZ is always looking for experts for its projects. Why not visit our 'Jobs and careers' page: www.giz.de/careers.

SUSTAINABILITY

A look back at a project and its results



Project: Renewable Energies Programme (PEERR-1) / **Country:** Bolivia /
Commissioned by: German Federal Ministry for Economic Cooperation
and Development (BMZ) / **Term:** April 2016 to March 2019

THEN

For years, Bolivia's economy was dependent on exports of energy, particularly **natural gas**. Now, though, its reserves of natural gas are shrinking. And around 10 per cent of the population has no access to electricity. The Bolivian Government has therefore had to rethink its approach and is focusing increasingly on **renewable energy** and energy efficiency. The maximum demand of the Bolivian electricity market is 1.5 gigawatts, and the country has a maximum capacity of 3.2 gigawatts. The Government's objective is to produce a **surplus of at least 3.0 gigawatts for export**. The GIZ project supported the Government by improving the technological, economic, statutory and institutional framework for **expanding renewables**. It also worked to integrate alternative renewables into the electricity system and to promote energy efficiency. The project was geared to governmental institutions and agencies, universities, and other education and training bodies.

NOW

Through **technical advisory services, knowledge exchange and research**, the project has helped to create a sound basis for decision-making. For example, the Government has invested in solar thermal power stations. These have produced as much as 50 per cent more than the 200-megawatt target. The project also initiated **studies** into hybrid photovoltaic-diesel systems. A further component was the organisation of **training courses** in the area of renewable energy and energy efficiency; **energy auditors** were one target group and carried out energy audits in selected buildings to apply their newly acquired expertise. To ensure this knowledge is passed on and mainstreamed, the project also recruited universities and technical colleges willing to design **new courses** or adapt the curriculum for existing courses. Finally, the project ensured the successful integration of renewable energy sources into the national energy system.

<https://mia.giz.de/qmlink/ID=246757000>

AKZENTE

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Food and nutrition security [f' u: d ə n d n ju: ' trɪʃ ə n sɪ k j ' ʊ æ rɪ t i] is a human right. It is achieved when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Source: European Parliament

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