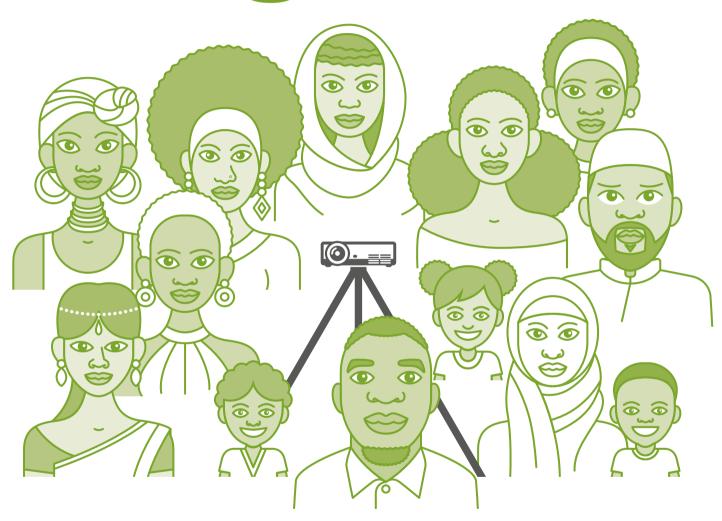
Young changemakers



Scaling agroecology using video in Africa and India

Paul Van Mele, Savitri Mohapatra, Laura Tabet and Blessings Flao

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About Access Agriculture

Access Agriculture is an international non-profit organisation that works across all developing countries to enable the South-South exchange of and access to quality farmer-to-farmer learning videos to promote agroecological principles and rural entrepreneurship. Access Agriculture builds capacity for the production of videos and, upon demand, translates any video hosted on its platform into any local language. It enables access to these videos for multiple stakeholders, including rural advisory services, education

systems, media houses and farmer organisations. By improving access of youth, women, smallholder and marginalised farmers to relevant knowledge, Access Agriculture aims to contribute to more resilient food systems that can counter the changing climate and the erosion of our natural resources.

For more information on Access Agriculture, visit **www.accessagriculture.org**

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Germany's BMZ (Federal Ministry for Economic Cooperation and Development) has invested through multiple projects implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to establish more than 100 ERA teams across 17 countries in Africa and India. Projects include Knowledge Centre for Organic Agriculture and Agroecology in Africa (KCOA), Green Innovation Centres, Innovative Agriculture for Small Holder Resilience (iNASHR) and Support to Agroecological Transformation Processes in India (SuATI).

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Foreword

The issue of youth engagement in agriculture is a critical concern in both Africa and India. Traditional perceptions of agriculture as a low-status, unskilled occupation, coupled with limited access to resources and market opportunities, have contributed to a significant disinterest among young people in pursuing careers in agriculture.

In Africa, the rapidly growing youth population presents both a challenge and an opportunity for the agricultural sector. With the aging farming population, there is an urgent need to engage and empower young people to participate in agriculture and agribusiness. Similarly, in India, there is a need to inspire and educate the youth about the potential of agriculture as a viable and rewarding career option. Efforts to promote

and

farming practices can serve as a

catalyst for engaging and inspiring

young people to contribute to the

transformation of food systems in

sustainable

Addressing the issue of youth in agriculture requires comprehensive strategies that encompass education and training, access to finance and resources, mentorship and networking opportunities, as well as policies

that create an enabling environment for youth participation and innovation in agriculture. By recognising and supporting the potential of rural youth in driving positive change in food systems, it is possible to build more resilient and sustainable agricultural systems in Africa and India.

Access Agriculture has been at the forefront of empowering rural youth to transform food systems through its innovative last-mile delivery model. From 2019 onwards, the organisation has empowered over 120 teams of young Entrepreneurs for Rural Access (ERAs) across 17 countries in Africa and India. These ERAs have been equipped with a solar-powered smart projector containing a vast video library, enabling them to serve as private extension service providers and facilitate the dissemination of knowledge agroecological on practices to farming communities. The ERAs have emerged as dynamic changemakers, demonstrating their commitment to promoting agroecology and sustainable agricultural practices. This book serves as a testament to the resilience, creativity, and dedication of these young individuals, who have not only embraced agroecology but have also become catalysts for positive change in their communities.

The stories captured in this book reflect the diverse backgrounds and experiences of the ERAs. From those who left school at a young age to university graduates, and from individuals with no prior agricultural experience to those already running small businesses, the ERAs represent a wide spectrum of young people who have been driven by a common goal - to make a meaningful impact in their home communities. Their journeys have been marked by challenges, including the global energy crisis and the disruptions caused by the Covid-19 pandemic. However, these challenges have also served as catalysts, igniting the desire among farmers to embrace ecological farming practices and reduce reliance on expensive inputs.

The impact of the ERAs has been profound, as evidenced by the success stories shared in this book. From training child mothers in Uganda to become beekeepers, securing user rights for youth to access local forests in Malawi, setting up community-managed tree nurseries and addressing deforestation, establishing farmer cooperatives and promoting

agroecology

both regions.

organic vegetable production to creating demand for training and fodder production, the ERAs have demonstrated their ability to drive change and create new opportunities for sustainable agriculture. Their efforts have not only led to increased agricultural productivity but have also contributed to the preservation of local food culture and biodiversity.

commitment to sharing knowledge and fostering positive change. Yet, their perseverance and dedication have earned them the respect and trust of local farmers, paving the way for meaningful engagement and collaboration.

As we celebrate the achievements of the ERAs, it is essential to recognise the critical role of hope, inspiring others to join hands in creating a more sustainable and equitable future for agriculture and rural communities. As we embark on this journey of transformation, let us continue to support and empower the next generation of changemakers, ensuring that their voices are heard, and their efforts are recognised and celebrated.

The impact of the ERAs has been profound, as evidenced by the success stories shared in this book

Together, we can unleash the power of rural youth to transform food systems and build a more sustainable and resilient future for all.

One of the key strengths of the ERAs has been their ability to engage with diverse target audiences, including rural women, youth, and marginalised communities. By leveraging the power of video-mediated learning, the ERAs have been able to reach out to those with limited mobility and literacy, providing them with valuable knowledge and skills to enhance their livelihoods. The impact of their work extends beyond agricultural practices, encompassing areas such as education, health, and environmental conservation. Nonetheless, the journey of the ERAs has not been without its share of challenges. They have had to overcome scepticism and mistrust in rural communities, demonstrating their played by Access Agriculture in supporting and nurturing these young leaders. The organisation's coaching and support have been instrumental in equipping the ERAs with the skills and resources needed to succeed in their endeavours. The video library provided by Access Agriculture has not only served as a valuable knowledge resource but has also inspired the ERAs to think creatively and innovate in their approach to promoting agroecology.

In conclusion, the stories of the ERAs stand as a testament to the potential of rural youth to drive meaningful change in agriculture and food systems. Their dedication, resilience, and innovative spirit serve as a beacon Pierre Ferrand
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Unleashing the power of rural youth to transform food systems

Access Agriculture hosts the world's largest collection of quality learning videos on agroecology and entrepreneurship for smallholder farmers and rural youth: more than 270 videos in over 100 languages. Now, Access Agriculture has pioneered an innovative model, whereby rural youth are using this video library to become private extensionists, using a small smart projector which casts a sharp image even in partial darkness. These youths, called Entrepreneurs for Rural Access (ERAs), enable farming communities to learn about agroecology from fellow farmers across the Global South.



From 2019 to 2024, along with its partners, Access Agriculture has equipped more than 120 ERA teams in India and 17 countries in Africa, building their digital skills, and provided coaching.

As start-up enterprises often fail in their early years, most of the cases that we selected for this book have been running for at least three years. The diverse stories captured testify of the creativity and drive of young people who want to live in and help their home communities.

Each of the ERAs had a unique experience. While some left school at the age of 16, others graduated from university. Some grew up on a farm whereas others had no previous agricultural experience. Some were already running a

small business, others worked as teachers or trainers at local NGOs.

All of these ERAs have lived through crises: many started around 2020, when the Covid-19 epidemic made it impossible to have large gatherings. The global energy crisis aggravated by Russia's invasion of Ukraine in February 2022 sent food prices, animal feed prices and chemical fertiliser prices skyrocketing. But this was a blessing in disguise sparking the desire of farmers to grow ecological food without buying expensive inputs.

The urge to produce animal feed locally, instead of relying on expensive imports, has created new opportunities for young entrepreneurs. In Rwanda, for instance, Jackson Karara was already running a business to produce hydroponic fodder but struggled to expand his market. In less than two years after having become an ERA, he was able to create a nationwide demand for training and fodder by showing videos on the topic. He nearly

quadrupled his production. In four greenhouses and without any chemical fertilisers, he produces 55 tons of hydroponic fodder per week. His team has also trained farmers to grow their own hydroponic fodder.

Many ERAs combine advisory services with other businesses, such as selling agroecological farm inputs. Others run organic farms, process food or deliver it to consumers. In Egypt, some of the ERAs showed videos that helped rural women take up poultry farming, azolla feed production, cheese making and cooking traditional meals as small businesses.

In India, ERA teams tap into women's self-help groups to empower tribal communities in Andhra Pradesh and Telangana. Equipped with projectors and new skills, they run bio-resource centres, promote natural farming and support young women to set up highly diverse nutri-gardens to provide food and income throughout the year.

ERAs in Uganda and India sell mushroom spawn to enable rural women to set up mushroom farms, others sell quality cassava cuttings. In Zambia, Zaali Nakalonga produces and sells liquid organic fertiliser. In Senegal, a young entrepreneur set up an urban waste collection system to make compost, but he struggled to maintain this because of the sheer labour involved and challenges with cash flow to pay labourers.

Rebecca Akullu trains child mothers in Uganda to become beekeepers. Happy Mbewe secured rights for youth to place their beehives in local forests, while his team has also set up various community-managed tree nurseries in southern Malawi to address deforestation.

These are just a few examples to stimulate your appetite. We have grouped the ERAs by country, listed in alphabetical order. At the end of each story, we added the contact details and social media pages of the ERAs. If you want to work with these inspiring young entrepreneurs, we encourage you to reach out to them.

The table below indicates which chapters focus on a particular aspect of the food system. Some ERAs have also reached out to specific target groups.

Focus and target	ERA page number
Production and sales of natural farm inputs and equipment	20, 32, 36, 44, 66, 86, 90, 94, 98, 110, 114, 126, 134, 154, 158, 162
Food production, processing & sales	4, 20, 28, 40, 48, 52, 70, 90, 94, 114, 118, 126, 134, 158, 162
Additional farm and non-farm services (e.g. weather forecasts, veterinary services, sports TV and entertainment)	4, 20, 28, 52, 56, 62, 66, 82, 86, 94, 106, 114, 122, 126, 130, 146, 150
Local food culture and biodiversity	28, 40, 44, 58, 70, 90, 94, 114, 118, 122, 138, 142, 162
Primary, secondary and tertiary education	8, 12, 24, 40, 44, 48, 58, 70, 74, 78, 94, 98, 102, 106, 110, 118, 122, 130, 134, 142, 146, 158, 162
Refugee settlements	126, 130, 138, 142
Rural health centres and clinics	58, 150



Championing value addition and innovation



Cédric Agbessi

"I grew up with my aunt in Koutago in the commune of Savalou, in central Benin, where most people are into farming. Our school was surrounded by fields. I often helped my aunt and grandparents grow maize, cotton, groundnuts, voandzou (Bambara groundnut), chilli peppers, yams and cassava. To help reduce the hardship associated with farming, I decided to study agronomy," says Mahutondji Cédric Agbessi.

Cédric graduated in agronomy in 2016 from the University of Agriculture in Kétou (now the National University of Agriculture), and in 2017 set up his own farm and the a loss," recalls Cédric. Fortunately, one of the members, lyabo Angélique Gnonlonsa, had learnt to make organic soap during her university studies. The first artisanal cosmetics made by the group were cucumber and carrot soaps, to showcase how products that were rejected by the market could have a value.

Thanks to social media, Cédric heard about the Young Entrepreneur Challenge Fund organised by Access Agriculture, decided to apply, and was selected as one of the winning teams. Soon after receiving the smart projector in 2021, one of his friends in the

We were impressed by the enthusiasm of the farmers, who watched the videos in their mother tongue Fon



"Agro Pour Tout" cooperative in Covè, in partnership with other young people. Of the 21 members, 13 are women. Four are university graduates, while the rest are people from the village.

"We began to produce a variety of vegetables for the local market, but soon realised that we couldn't sell produce that had the slightest blemish, so we were making commune of Djidja, called him to say that farmers needed help to improve their soil fertility and manage the fall armyworm on their maize.

"The village was 32 km from the central town of Djidja, had no electricity, and the connecting road was in poor condition. It was an ideal first experience to test the smart projector with



its solar-powered battery." Cédric says. After meeting the village chief in the evening, the team screened various videos in the open air, such as Killing fall armyworms naturally. Human urine as fertilizer and Reviving soils with mucuna. "We were impressed by the enthusiasm of the farmers, who watched the videos in their mother tongue Fon." The team spent the night in the village and then put the farmers in touch with the local branch of the government agency for agricultural development, ATDA (Agence territoriale de développement Agricole), to enable them to access mucuna seeds.

Cédric and his colleagues set up the company Agriculture for Development (A4D) Consulting and created a Facebook page and electronic leaflets to promote the services of their company and indicate where they would be holding video sessions and on what dates. They also shared the flyers on their social media networks.

Their first paying customer was Technoserve, an international

nonprofit that promotes business solutions to reduce poverty. "As part of its Beninbiz programme, which aims to strengthen and support local entrepreneurs, it wanted us to broadcast Access Agriculture's training videos and provide training on processing and packaging of klui klui, a local groundnut snack. The training



The women were astonished to see that they were able to extract twice as much oil from the groundnuts while turning the paste into a snack



took place in Malanville and Kandi, in the north of the country, but we were prepared to go wherever people asked us. After trying out the technique shown in the video Making groundnut oil and snacks, the women were astonished to see that they were able to extract twice as much oil from the groundnuts while turning the paste into a snack," Cédric says.

In addition to travel costs, they charge their customers between

30,000 francs CFA and 50,000 francs CFA per day (46-76 Euros) for video shows.

"Finding organisations willing to pay for our service is crucial, but it can be difficult as many of them have a fixed budget for training. And as Beninese farmers are used to receiving per diems when they attend training provided by projects, it will take time for them to pay for video extension services," says Cédric. After each

show, many farmers ask for copies of the videos. As most villages do not have internet connection, the team transfers the compressed video files to farmers' mobiles using Bluetooth.

When he was starting out in the professional world, Cédric took part as a trainee facilitator in a Farmer Field School (FFS) project, where he learnt the importance of farmers experimenting. So, rather than telling farmers what to do after each video, he simply invites them to try out what they have learnt in the video on a 20 square metre plot of their field and compare the results with their own practices.

"The Access Agriculture videos also inspired us. We started to produce our own organic fertiliser and made our farm fully organic. The cooperative was already making soap, but now it's organic soap. The smart projector also contained videos on food processing, such as Tomato concentrate and juice, which gave us another idea, as tomatoes only have a short shelf life. We now make organic tomato concentrate, which we sell at a good price on the local market once the fresh tomato season is over. As we don't have enough tomatoes ourselves. we also train women from our village in organic production and buy tomatoes from them," says Cédric.

As a true entrepreneur, and to target international markets too, in 2021 Cédric co-created with lyabo Angélique Gonlonsa another

We now make organic tomato concentrate, which we sell at a good price on the local market once the fresh tomato season is over. As we don't have enough tomatoes ourselves, we also train women from our village in organic production and buy tomatoes from them





company, called Agro Fenix, offering dried chillies, tomato concentrate and a range of organic cosmetics made from farm crops.

the national extension system."

To new ERAs Cédric gives the following advice: "Try to find

We want to influence policymakers to adopt this video-based extension approach and integrate the smart projector into the national extension system

Between 2021 and 2023, the an in Zè, Covè, Kétou, Malanville, Kandi. Savalou. Glazoué and Bohicon. About 32% were women and 75% were youth. Each year, they have earned between 150,000 and 300,000 francs CFA (230-460 Euros) from video screenings.

Asked how he sees the team contributing to national food security, an early dream of Cédric. he says: "We want to influence policymakers to adopt this videobased extension approach and integrate the smart projector into

experienced team trained around 1,500 people to mentor you. Learn from your mistakes and keep learning. because the world is constantly changing and new challenges

entrepreneur are constantly arising. Having the strength and being able to rise to challenges all the time is what defines an entrepreneur."

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Meeting the need for healthy school meals



Clémence Assongba

Clémence Assongba holds a Master's degree in agriculture from the University of Parakou majoring in natural resource management. "I have always loved to be in nature. I do not like cities, and really love to spend as much time as possible with rural people. Through my work as a trainer, I also feel I can contribute to food security in my country," Clémence says.

Having grown up in a village in Ouèssè Commune, a major agricultural area in the Collines Department of central Benin, and her father being an agronomist, Clémence developed a passion for agriculture from an early age, and used to help her parents plant and harvest maize and cassava on their farm

The government had procured cowpea, yellow peas and white beans from local farmers as the main ingredient of the meals offered to children at the school canteen, but the stock of pulses was attacked by weevils



Ouèssè is famous for its quality gari, a popular food in West Africa. Cassava roots are mashed, fermented and sieved into small pieces, which are then roasted to make a crispy, granular product. Gari processing offers employment to many women.

As a teenager, Clémence often joined women in her village when they were making gari. She quickly understood that to get steady clients you need to ensure quality in every step of the process. After

graduation, Clémence worked in several projects, training farmers on the use of organic fertilisers and nutrition. Having seen how widespread the use of agrochemicals is in her country, she is determined to promote agroecology as a way to secure safe and healthy food

"In 2020, my friend Hilaire Kodjo informed me that Access Agriculture had launched a competition to identify young entrepreneurs who would like to become digitally equipped rural advisory service providers to support agroecological transformation, so we applied as a team. We went through the selection process and made it to the final. Access Agriculture trained us and equipped us with a solar-powered smart projector, but our enterprise got off to a slow start due to Covid." recalls Clémence.

For several years, and with support of the World Food Programme (WFP), the Benin government has been committed to making school canteens an essential social safety net to improve access to primary education and increase the school retention rate. Food served to the school children is procured from local farmers, as such supporting local food production and culture. As an integrated approach, schools are used as an entry point for converging development initiatives such as education, nutrition, health, agriculture, and social mobilisation.

The video Making soya cheese enabled the 17 women members of Mahougnon cooperative to comply more effectively with hygiene rules

It was as part of the school canteen programme that Clémence was approached by the headmaster of Akuessa public primary school in the township of Abomey, in Zou department. With WFP support, the government had procured cowpea, yellow peas and





white beans from local farmers as the main ingredient of the meals offered to children at the school canteen, but the stock of pulses was attacked by weevils.

"It was my first experience using the smart projector, so I did not charge anything. The school had invited the canteen management committee, including some teachers and parents, to a meeting to learn and discuss how to solve their problem with weevils. In the afternoon, after school was out, I screened one of the Access Agriculture videos, Storing cowpea seed, in which farmers from Ghana show and explain how they manage weevils by properly drying, selecting and storing cowpea. The video

had been translated into the Fon language, which is primarily spoken in central and southern Benin, so all could easily follow. It was a fantastic experience. Afterwards, I learnt that the school had solved its problem, so I was really happy," Clémence says.

To build up their experience and reputation, the team screened



videos for free to various women cooperatives, mostly on vegetable cultivation and food processing, but also on group formation.

So far, cooperatives have only covered their transport costs, with the exception of the Mahougnon cooperative, which paid 10,000 francs CFA on top (15 Euros). The video <u>Making soya cheese</u> enabled the 17 women members of Mahougnon cooperative in Saclo, in the municipality of Bohicon, to comply more effectively with hygiene rules. They improved the

exploring whether to register as a consultancy bureau or as an NGO, because when you approach potential clients as a simple individual, they do not seem to take you seriously," says Clémence.

The first years of establishing a new enterprise are often the most difficult ones, which is why Access Agriculture coaches young entrepreneurs like Clémence, helping to improve their visibility, linkages with potential clients and negotiation skills. Access Agriculture also encourages new projects to

The first years of establishing a new enterprise are often the most difficult ones, which is why Access Agriculture coaches young entrepreneurs

quality of their soya cheese and improved their business.

Clémence has also been renting out the smart projector to local NGOs who often want to screen their own videos. To ensure proper care of the smart projector, one of the team members always facilitates the sessions, at the rate of 50,000 francs CFA (76 Euros) per day.

To secure more paying contracts, Clémence wants to reach out to more NGOs and offer her services to schools and training centres. "I am currently

include the video-based training services of the young entrepreneurs into their new proposals.



Capitalizing on the growing demand for chemical-free food



Mori Gouroubera

"When I went to university, my friends asked me 'Why don't you study accounting instead of agriculture?' But having grown up in a farming family and having seen many farmers struggle on a small piece of land, I was convinced that I had made the right choice and that I could help my country," Mori Gouroubera says.

Since 2022, Mori holds a Doctorate of Philosophy (PhD) in Communication and Agricultural Extension from the University of Parakou, Benin, lectures at the same university, and runs a small

already providing advisory services, after receiving the smart projector with its library of quality farmer training videos in local languages, I suddenly had a unique tool and a competitive advantage over other service providers," recalls Mori.

In the beginning, Mori screened videos for free on onion cultivation and other vegetables to women groups in Koundé, Bassila and Djougou, in northern Benin. The videos were seen as something new, and farmers were excited to watch them in their local <u>Bariba</u> and <u>Dendi</u> languages.

After receiving the smart projector with library of quality farmer training videos in local languages, I suddenly had a unique tool and a competitive advantage over other service providers



firm called Africa Smart Development (ASD Consulting), that uses information and communication technologies (ICTs) to train small-holder farmers.

"When I succeeded in the Access Agriculture competition in 2019, this led to quite a change. While I was His first paying contract was for a local non-governmental organisation called Canal Développement. "I was asked to train four farmers' associations with whom the NGO worked on agroecological practices. Each training lasted two days, during which I mixed videos with other sessions



to sharpen their business skills. I charged 100,000 francs CFA (150 Euros) per farmer association."

Mori always targets farmers' associations that are well organised, never individual farmers. From one satisfied client came the next. Since 2020, the NGO Api Service Monde has become a steady client, usually requesting two training sessions with the smart projector per month. Because it is a long-term collaboration, they agreed on a modest price of 15,000 francs CFA (23 Euros) per session, plus travel expenses.

"I had a list with all NGOs working in my area, and I visited most of their offices to sell my services, but it was not easy at first. I really had to convince them and give evidence. Often, I also gave them a USB memory stick with a few videos on topics of interest to them and in the local language, so they could see for themselves how good and how practical the videos are," says Mori.

Mori has also been frequently renting out the solar-powered smart projector to other development organisations, as many Seko Zakari and Ouneizath Touré. While the main revenues of ASD Consulting have come from other activities, such as conducting feasibility and impact studies and coaching micro-enterprises, the video services have generated an average annual revenue of 775,000 francs CFA (1,200 Euros).

ASD Consulting also distributes the farmer-learning videos to farmers by loading them on micro-SD cards, DVDs, preloaded phones and USB sticks. "Even now, whenever people ask us at the end of a show, we transfer the videos that we screened to the mobile phones of some farmers in the audience, who in turn share it with others. But whenever there

I had a list with all NGOs working in my area, and I visited most of their offices to sell my services, but it was not easy at first.

work in villages where there is no electricity. To ensure the projector is properly used, he trains the people who will use it beforehand. His minimum daily rate for this hire service is 30,000 francs CFA (46 Euros).

With more contracts coming in from a broadening pool of partners, and because Mori had to devote more time to his PhD research, Mori re-enforced his team in 2020 and 2021 with three other young professionals: Albert Kora, Houdou

are young people attending, I also show them the Access Agriculture video platform, as young people prefer to find and download themselves the videos of interest," says Mori.

Triggering agroecological transformation is no mean feat in an economic landscape dominated by a single export crop that has shaped agricultural policies in favour of agrochemicals. Over the past few years, Benin has become Africa's leading cotton producer.





While it used to export its raw cotton to Bangladesh, it now has its own textile industry. Given its economic importance, the government is disinclined to curb the intensive use of agrochemicals in the cotton sector, but things are gradually changing because of multiple pressures.

Cotton is the predominant crop in the Atacora, Donga and Alibori Departments, in northern Benin. Over the years, many farmers have seen their soil degrade because of the intensive use of chemical fertilisers and herbicides, and are keen to change their destructive practices. Just like in most developing countries, rigid control on the use of pesti-

cides exists on paper only. Toxic pesticides allowed in cotton can be found in any agro-input shop and often end up being used on food crops. Pesticide poisoning is not uncommon in rural areas.

"Besides farmers, consumers are also becoming increasingly aware. While the international market for organically and ethically produced cotton is growing, local people are also increasingly looking for food that is produced without chemicals," Mori says. "Some people can tell from the taste and texture of carrots, tomatoes and even yams that they have been grown with chemical fertilisers."

Most farmers do not sell their vegetables directly on the market, but to middlemen. These traders have observed that, unlike organically grown products, non-organic food grown with chemical fertilisers spoils quickly, usually within a few days after harvest.



Therefore, traders are increasingly looking for farmers who grow their food organically.

With a rising demand for ecologically grown food and fibres, the demand for training is steadily increasing. "The smart projector and professionally crafted farmerto-farmer learning videos help us to maintain high quality training when scaling up, but there is a need to have more videos translated into local languages," Mori says.

When Mori and his colleagues trained women's associations in Banikoara, in the Alibori Department of Benin, at the heart of the most intensive cotton-growing region in Benin, on growing organic vegetables, their reaction was heartwarming. "When farmers tell me that the videos have made farming without chemicals really simple, I feel a great sense of fulfilment and pride," Mori says.



André Adjoboto runs an agroecological vegetable farm called Agri Bio Services where he experiments with all possible technologies to manage pests, diseases and soil fertility without the use of agrochemicals. Inspired by the Access Agriculture videos Making enriched biofertilizer and Making a vermicompost bed, among others, André engages

restraints and speak their mind. It is wonderful to see that men and women can sit together and discuss issues of common interest," Mori explains.

From 2019 to 2023, Mori and his team screened videos to over 4,400 people, of which 18% were youth and 42% were women. Preferred topics include inter-



Food grown with chemical fertilisers spoils quickly, usually within a few days after harvest. Therefore, traders are increasingly looking for farmers who grow their food organically. With a rising demand for ecologically grown food and fibres, the demand for training is steadily increasing

expertise with new ERAs in Benin and other Francophone African countries. "I often tell new ERAs that they should not get discouraged when they search for clients. The dominating mindset of organisations is that anyone can train farmers; some may even think that you are just after their money. You need to convince them about the uniqueness of your service and how it impacts farmers. Give them examples, invite them to attend a video session, or do anything to change their mindset," concludes Mori.

youth to produce organic fertiliser, using locally available ingredients. The organic vegetables are sold in Parakou.

Impacts of the Access Agriculture videos are very diverse and at times certain changes can go unnoticed for an outside observer. "Women in northern Benin tend to keep quiet at meetings from the moment there is a man, but after they have watched a farmer-to-farmer training video in their language, the discussions come automatically. They no longer think about those social

cropping and crop rotation with legumes, vegetable and soya bean cultivation and honey production.

As an experienced ERA, Mori is often invited by Access Agriculture to share his experience and

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The smart projector: A bank of business ideas



Ache William Anubofeh

Ache William Anubofeh holds a Master of Engineering degree in Mining Engineering, but has always had a passion for agriculture. "From the age of seven, I started helping my parents on the farm, growing rice, maize, beans and potatoes," Ache says. While he was a student, he volunteered for four years with the local NGO Sustain Cameroon where he built up experience in community mobilisation. Passionate about sustainability and ecosystem community development, Ache also completed an online course on Ecosystem Restoration, run by the United Nations Development Programme (UNDP). In 2019, Ache decided to set up his own NGO, Sustainable Ecosystem Development Association (SEDA).

In the Northwest Region of Cameroon, SEDA strives to improve

youth literacy and empower women self-help groups towards climate resilience and adaptation. "While we want to build life skills of young people and help them lead the change they want to see in their livelihoods and to cope with climate change, it has really been the smart projector that helped us catalyse our outreach programmes," says Ache.

In June 2023, Ache heard about the Access Agriculture call to become an Entrepreneur for Rural Access (ERA) through one of his Facebook groups. He applied with three other friends and their team was selected, equipped with a solar-powered smart projector kit, trained, and two months later were already organising video shows in different communities around Bamenda.

Often change agents have no lived experience of what grassroots communities really go through. To mobilise groups to learn from the videos, Ache and his team have developed a mixed strategy: "We collaborate with community leaders and have also identified a number of volunteer students from local agricultural colleges who commit to coach and mentor their home communities," says Ache. This unique and worthy approach strengthens social cohesion and helps install youths as change agents of their own rural communities.



As Ache's team is fully aware that each person has different financial means, it uses a flexible pricing system. Individuals need to register upfront, indicating their commitment to be involved in a local community development initiative. In some cases. the team screens videos for free. as people first want to appreciate the value of the videos. Ache does make sure, however, that their transport costs are always covered. In most cases, individuals pay a fee to attend a show, ranging from 500 francs CFA (0.76 Euro) to 2,000 francs CFA (3 Euros). "In some selfhelp groups, women are already running a small business and they even pay up to 5,000 francs CFA (7.6 Euros). They know that we will use the money to further help their group," says Ache. For instance, with the money earned SEDA has bought small machines that the women groups use to package their doughnuts, cookies and chilli powder.

During each show, Ache and his friends show several videos. Based on the demand of the audience, they have screened <u>Making</u> <u>enriched biofertilizer</u>, <u>Drip irrigation for tomato</u>, <u>Killing fall armyworms naturally</u>, <u>Staking climbing beans</u>, and <u>Self help group</u>, amongst other videos.

While the team started organising community video shows only in August 2023, six months later, they had already reached 718 people, of whom 59% were women and 75% were youth.

We collaborate with community leaders and have also identified a number of volunteer students from local agricultural colleges who commit to coach and mentor their home communities

The video screenings have already led to the establishment of self-help groups in five communities. Each group is comprised of 25 members, mainly young women, who are all committed to



establishing an enterprise that is of mutual interest to them.

After they had watched the video <u>Producing healthy plantain and banana suckers</u>, the self-help groups from Mforya-Bafut and Akumom-Bamunkimbit villages decided to specialise in

importance of cultivating banana without the use of any agrochemicals after their group had watched the video <u>Making banana flour</u>, while the video <u>Making chillipowder</u> pushed other women into action too.

"We want to curb youth unemployment by promoting social entrepreneurship. Each person can select the type of enterprise that is of most interest to them.

But within a group, we also limit the different types of enterprises that people want to set up, as a certain focus within the group is needed," says Ache.

Besides using the smart projector to establish community self-help groups, Ache has also screened videos in schools.

The video screenings have already led to the establishment of self-help groups in five communities

the production of quality banana and plantain seedlings. With the support of SEDA, the women groups developed a business plan to produce and sell suckers to farmers in their own and neighbouring communities.

Women from the SEDA Self-Help Group Mforya-Bafut decided to set up home-based businesses. Some women, like Joiceline Bih, began processing and selling banana flour. Joiceline realised the







SEDA also promotes eco-friendly farming, to mitigate the effects of land degradation and ensure healthy diets

After one such screening, and seeing how positively the pupils responded, the Blessed Complex school in Nchuaboh-Mankon, asked SEDA to continue working with them. Besides theoretical exams, pupils from grade six also need to do practical exams, and the school liked the idea of doing this on food processing. One girl, Tita Janda, aged 20, started making chilli powder at home after she watched that video in school.

SEDA also promotes ecofriendly farming, to mitigate the effects of land degradation and ensure healthy diets. Pineapples are widely grown in the region.

Without good management, the organic matter disappears quickly from the soil and yields of this perennial crop drop greatly after the second harvest. When farmers

watched the video Intercropping

pineapples, which shows how

experienced farmers in Uganda keep their pineapple gardens productive for at least six years by planting a legume crop and bananas in between their rows of pineapple, they decided to give it a trv.

"To become a successful ERA, you need to take the time to develop vour business model. Write down your vision and mission, so you keep this in your mind and heart as a goal of what you want to achieve in the next five years," says Ache, when asked what advice he would give to other ERAs who want to be successful in their work. "The smart projector is like a bank full of business ideas that you need to exploit."

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From software engineer to successful azolla entrepreneur



Ahmed Hamdy

When you meet Ahmed Hamdy, vou are immediately taken by his positive attitude. "I had severe health problems growing up and spent a lot of time in hospitals," savs Hamdy. Despite this. Hamdy managed to become a software engineer, after which he started fixing mobiles and computers. His career radically shifted after the Egyptian Revolution of 2011. "Suddenly, everybody needed technical help getting online with their mobiles. One day, a local NGO supporting rural women in Diyarb Negm village asked me to help with its social media. When the founder died shortly after, I became the manager and found my calling in development work."

Hamdy developed his skills in database management and accounting, while widening his network of local partners and youth clubs. "I was the first person the governorate called when Covid-19 hit El-Sharkia; local services were a disaster and they needed someone to engage large youth networks," recalls Hamdy. This is how he befriended another, well-established NGO in El-Sharkia with a strong agribusiness and farming programme for youth.

As part of the Innovative Agriculture for Smallholder Resilience Project (i-NASHR), Access Agriculture had an information session at the NGO's premises, providing an

opportunity for young people to receive a smart projector. Sitting in the audience, Hamdy quickly realised how videos, translated into <u>Arabic</u>, could motivate rural people to get value from agricultural waste, and use water and land more sustainably. He applied and was thrilled to be one of the chosen teams

Hamdy's first video projections were at rural youth centres that he knew. In the evenings, he also organised video shows in the streets using the sound system and lights of his car to reach as many young people as possible. Impressed by his creativity and drive to work with youth, staff from government health centres asked him to join their campaign events during Covid. While some could afford to rent the projector. Hamdy often offered free screenings as he believes in the power of networking.

Everything changed when Khaled, a local leader and president of the board of a local NGO with a strong work ethic and community culture, offered to help him. "We immediately trusted each other and knew how important it was to share knowledge with farmers," says Hamdy. Khaled led a small-scale income-generating project on cheese, honey, and goat and rabbit farming and Hamdy had just the right type of training videos needed to support





this. Khaled offered him a partnership in his village, Mensheyat Sabara, and they started to screen Access Agriculture videos, including the entire series on rearing rabbits.

In 2022, feed costs increased sharply due to the invasion of Ukraine and many people, women in particular, who raised small livestock were struggling to keep up production. So, it came as no surprise that the video Growing azolla for feed raised a lot of interest. The video shows how smallscale farmers in India produce their own feed, using azolla, a nitrogen-fixing, aquatic fern.

Azolla grows fast and is an ideal source of protein, but Hamdy had no idea where to source the seed to start his azolla business. When he managed to rehydrate dry azolla, which a local middleman was selling as feed, Hamdy and Khaled immediately established

The video shows how small-scale farmers in India produce their own feed, using azolla, a nitrogen-fixing, aquatic fern

their ponds to produce more azolla. Soon after, the local women started to benefit from this enterprise.

To reach the many women who tended not to leave their homes. Hamdy screened videos and Khaled filmed the sessions, which he shared on Facebook live.

Within a year, 200 women had set up small azolla ponds to supply their small-scale poultry enterprises. "We sold the azolla starter to those women who had installed a pond in Khaled's

district. To those who did not have a pond, we started selling fresh azolla as ready feed supplement," says Hamdy. This was much cheaper than imported or local maize or sova.

Having attracted the attention of Youm 7, a national newspaper covering the issue of imported feeds, Hamdy and Khaled were put in the spotlight. "This was both good and bad: we had to raise awareness among public agencies on the benefits of azolla for food security, but we also realised that fishponds are not allowed on

agricultural land in Egypt," says Hamdy.

A born problem-solver, Hamdy adapted the model so that women could also grow azolla in small basins on their rooftops. By doing so, the women avoid the penalties of setting up ponds on productive farmland. Since Hamdy has been testing different kinds of feed mixes for poultry and rabbits, he has become a local expert. "As I learn from all the farmers who



A born problem-solver, Hamdy adapted the model so that women could also grow azolla in small basins on their rooftops

experiment with azolla and feed, I have become a specialist in this field thanks to all the practical knowledge gained in training people," says Hamdy. Khaled even got requests from countries in the region where he helped set

up groups promoting azolla. It also allowed him to meet other azolla experts from Jordan and Saudi Arabia, who are interested in developing larger scale azolla production on desert lands.

Hamdy continues to develop and fine-tune the training programmes he offers, such as how to make a local business plan with small-scale farmers. "By helping them document the savings made on feed, women realised they increased their profit in poultry production by 50%. It is heart-warming to know that thanks to azolla, women now sell eggs at a cheaper price to local parents who can now afford egg sandwiches in their children's lunch boxes," he says.

Hamdy knows that the video shows are crucial, but also that follow-up is needed to sustain the work in the rural communities, especially for youths. Besides engaging local municipalities to support video screenings, he has ensured that youths who raise poultry and rabbits on azolla are





given a free space at local markets to sell their produce alongside handicrafts and other small enterprises.

Always moving forward, in 2022 Hamdy applied to the International Labour Organization (ILO) to become a certified trainer on local enterprise development. He took the course, his skills were quickly recognised and Hamdy now works part-time with ILO as a trainer: "Even as a trainer, I continue to improve the efficiency of azolla ponds, as I am convinced it offers a solution for businesses and local nutrition in rural Egypt."

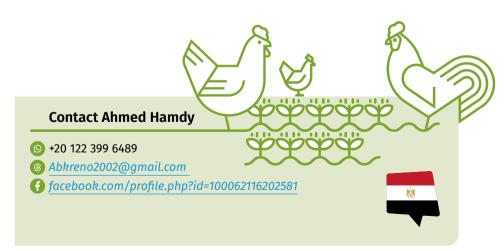
From July 2021 to December 2023, Hamdy organised 221 video screenings and reached 3,687 people, of whom 32% were women and 70% were youth.

Hamdy now has a small field where he set up an integrated farm with trees, crops, poultry,

Within a year, 200 women had set up small azolla ponds to supply their small-scale poultry enterprises

an azolla pond, and other enterprises. He has changed from being a landless fixer of electronics to a thriving farm entrepreneur, trainer and advisor with an international reputation.

To newcomer ERAs he has the following advice: "Change can come slowly, but it is good to progress steadily, engage key stakeholders and stay positive!"



The art of farming



Aya Gamal

Aya Gamal is a volunteer with many local organisations and youth clubs in Egypt, and she is passionate about song and theatre. Some of her art groups have worked with local health centres and the national women's council to teach communities about the dangers of female genital mutilation.

One day on her social media, Aya came across the call for applications to receive a smart projector as part of a national (ERAs) selected. While many people applied, Aya stood out not only for her young age, just 18, but also for her passion for rural outreach and community engagement.

"I knew the projector would be an additional tool to raise awareness on the importance of agriculture and food among young people like me, because this practical knowledge is nearly absent in our schools and universities," says Aya.

I knew the projector would be an additional tool to raise awareness on the importance of agriculture and food among young people like me, because this practical knowledge is nearly absent in our schools and universities



competition organised by Access Agriculture in collaboration with ICARDA, the International Center for Agricultural Research in the Dry Areas. She applied, hoping to engage with agriculture as she pursued her studies in literature.

Aya Gamal was the youngest person in the 18 teams of Young Entrepreneurs for Rural Access The ICARDA project contracted the ERAs to screen the videos Stronger plants with raised beds and Working in groups to save water to help farmers save a third of their irrigation water, and the video Crop rotation with legumes to improve soil fertility. Aya received a stipend of up to 3000 Egyptian Pounds (100 Euros) per month to reach 150 farmers.

Aya decided to organise screenings in the streets of her village Buhut, in Dakahlia, but struggled to gather an audience because she was young and because no one had ever seen such a projector and many thought it looked suspiciously like a camera. Aya realised that screening videos would be harder than giving live performances in the villages. "I needed to conserve my energy and time. and better target the video screenings. I learnt a lot about how to engage participants and focus more on the follow-up after the screenings."

Aya then targeted agricultural cooperatives and extension directorate managers, which gave her direct access to farmers, but she felt it would be better for her to communicate with youngsters her age.

As the agricultural videos were new here, Aya decided to approach the university professors to offer her time to screen videos to students before classes or during breaks. She started to screen videos such as Growing azolla for feed and Silage from maize to spark young people's interest to make feed as a business. Youngsters in the audience whose parents were farmers also asked her to screen videos on Making pressed dates and Managing black rot in cabbage.

With her active social engagement in youth clubs and youth camps, Aya always brings with her the projector and uses her past experience of singing and theatre to gather crowds and engage them on the importance of agriculture for the future of a productive and food secure country. "When I visit schools. I explain to the teachers how children lack knowledge on the importance of agriculture in relation to climate change. I



In youth clubs and youth camps, Aya always brings with her the projector and uses her past experience of singing and theatre to gather crowds and engage them on the importance of agriculture

convince them that they need this knowledge and that the video screenings also offer an opportunity for children to learn more about plants, soil and water," says Aya.

Building up experiences, Aya started screening videos for free for the rural women in her home village and neighbouring ones. "It is hard to ask these people to pay for screenings not only because they are poor, but also because most men think they know it all," says Aya. Knowing it would take time to gain their trust, Aya prioritised topics she thought would quickly win over her audience.

Small livestock and processing are of great interest to rural women in particular, so Aya screened the video series on poultry and dairy production. While only a few women raised 5 or 6 rabbits, Aya also showed the videos on raisina rabbits. The women were thrilled to learn how they could increase production. "I create a space for women where they can discuss in a group and follow up with them afterwards. I am delighted to see how women implement what they learnt: from changing the bedding for their chickens to raising rabbits to improving their own food security or selling to their neighbours," says Aya.

Making fresh cheese

After they watched the videos Making yoghurt at home and Making fresh cheese, women in several villages diversified their home-based enterprises, by star-

ting to make yoghurt and cheese. "Many women already sold traditional cookies and pastries to order, so they appreciated being able to offer additional products. Some even added cheese in their pastries, which they then sold for a higher price."

Aya helped several women who started making yoghurt to sell it to their family and friends. After one lady Fatma made a small space to process milk at home and started producing and selling dairy products more commercially, Aya realised the potential to replicate the home-based enterprise. Once even one person implements the knowledge from the videos, it can inspire others.



Women want to ensure a clean and safe source of milk for their own enterprises, so they asked Aya to also show them the videos Keeping milk free from antibiotics and Keeping milk clean and fresh. The women then shared what they had learnt with local farmers who supply them with milk.

From June 2021 to December 2023, Aya organised 207 video shows, reaching 3,400 people, of whom 89% were female and 64% were youth. This is quite an achie-



vement for someone who is still a student.

Without any background in agriculture, Aya strongly appreciates having been part of a broader network of ERAs. "Other ERAs with

workshop to exchange experiences. Aya recalls: "for the first time I was eating the healthy food I had seen in the videos. It made me realise how much more work needs to be done to connect the farmers and the consumer."

As youth we should see the land as an opportunity to develop ourselves, to learn to eat healthy and to contribute to food security through small enterprises that we youth can set up

Since Aya became an ERA, she is still eagerly waiting to finish her studies in the arts, to combine them with a future in agriculture knowledge management. She looks forward to spending more time travelling and meeting farmers to share the videos. She also dreams of creating theatre on agricultural topics.

"Regardless of all the new digital technology and the changes we see in our society. agriculture will always be there. It is the foundation of our country, our society and our culture. As vouth we should see the land as an opportunity to develop ourselves, to learn to eat healthy and to contribute to food security through small enterprises that we youth can set up," says Aya.

As an artist who has had a chance to learn from farmers, in the field and in the videos, Ava realises that farming itself is also an art.

more experience in agriculture took the lead and I was able to follow in their footsteps. Many ERAs have access to land and are growing food in a healthy way. I knew there were issues with the health of our food, but it increased my awareness and I started researching more," says Aya.

In March 2023, 17 ERA teams from across Egypt had a training



Videos inspire community leaders to emerge in rural Egypt



Elham Ahmed

Flham Ahmed and her husband Ali Abd El Meiid are true rural innovators seeking to uplift their village Al Badari through the local NGO they established, called Bader (meaning "to initiate"). The village lies 400 kilometres south of Cairo in Assiut Governorate. Egypt. Elham and Ali have been trainers, developing income-generating projects for small-scale farm families and youth in technical agricultural schools.

One of Bader's first successes in their village was when the couple started buying low-grade cracked pomegranates and trained women to make pomegranate syrup and hair products from the pomegranate peel. The cracks

in the pomegranate peels were due to poor irrigation practices. Bader decided to tackle this root cause of the problem.

Alerted by a post on Facebook, Elham immediately applied for the call for young Entrepreneurs for Rural Access (ERAs), organised by Access Agriculture and ICARDA, knowing this would greatly help her to build local capacity. In 2021 she was one of those selected to receive a solar-powered smart projector containing more than 180 farmer training videos translated in *Arabic*.

Over the years, the couple have worked intensively with farmers in their village to improve irriga-







tion. Fragmentation of land is a real challenge in Egypt as it increases conflict over water, especially when farmers have different cropping patterns. Bader was trained by the World Food Programme to support land consolidation and collective crop rotations, which Elham and Ali successfully helped to scale with the help of the smart projector.

From June 2021 to December 2023, the couple organised 181 video screenings, reaching 3,488 people, of whom 65% were women and 60% were youth.

Whenever the couple screens the video <u>Working in groups</u> to save water, they often invite Hassan Ahmed, one of the lead farmers, to co-facilitate the discussion with new farmer groups. "As he is one of the farmers featuring in the video, the discussion is rich and many interesting questions arise. It helps farmers see the types of challenges they need to overcome when working collectively," says Elham.

They also observed Hassan emerging as a farm leader promo-

ting raised beds to hundreds of fellow farmers. This water-saving land preparation is featured in the video *Stronger plants with raised beds*. When Bader's new project "El Reef el Masry" started, Hassan was recognised as a local leader and was rewarded with a small

of <u>dairy videos</u>, our women are now diversifying their income and learning new skills," says Elham.

Lacking access to dairy experts in their remote village, Elham and a small team of women tried the techniques from the videos

Videos made with farmers in different countries can spark change by making people aware of new opportunities

financial gift and public nomination that gave him great local visibility. "All this, simply from screening videos and investing in the right people," says Elham.

Videos made with farmers in different countries can spark change by making people aware of new opportunities. "Most families in our area generate income from fruit and vegetables, so we never really explored activities outside of the pomegranate season. I am happy that thanks to the series

Making rennet and Making fresh cheese. They could easily relate to the rural women featured in the videos and copied what they previously thought would be difficult. Whenever Elham does not have enough milk from her cow, she buys extra milk from her neighbours.

Sukaina Hassan, a 34-year-old woman with four children, who is also taking care of her sick husband, had no stable income. After watching the videos *Making*

fresh cheese and Making yoghurt at home, Sukaina assessed the feasibility of setting up a small dairy business from her home and approached Elham after the screening. "As a local NGO, we helped her link to the local Ministry of Social Solidarity to access a small

other women to process their own dairy products as a business. In 2023, Sukaina was honoured at the International Women's Day as a successful entrepreneur and emerging leader in her community. She now covers her husband's medical bills, while raising her

Elham. The abundance of ideas captured in the videos have fuelled her passion to support rural innovation and boost more leaders in their respective communities.

As a civil society organisation, Bader also seeks to be a leader in digital technology for smallholder farmers. "We are constantly developing our skills to reach out to farmers through social media and mobile apps, and to monitor projects using IT. This is key for the services we provide, but also for marketing and reaching clients," Ali explains.

After going through the Arabic video library, Elham and Ali watched *Forecasting the weather* video and figured this would be a great service they could provide to their farmers. With climate change, farmers have struggled to know the best time to irrigate. They screened the video to people in their community and immediately understood how much farmers were interested in this solution.

The couple used the key concepts in the video to respond to a call for proposals from CARE Egypt, funded by the European Union. Their proposal stood out. "We obtained a grant to install





Sukaina has now hired three women as full-time employees and has even started to sell fresh cheese and yoghurt via her Facebook page

grant of 10,000 Egyptian Pounds (300 Euros) to buy the necessary equipment and obtain a booth at a local food exhibition to promote her products," says Elham.

Sukaina has now hired three women as full-time employees and has even started to sell fresh cheese and yoghurt via her Facebook page. She has inspired many children who now look up to her as an entrepreneur.

"Who would have known that women like Sukaina had this potential? We have seen many women emerge as local leaders, starting dairy and poultry projects or experimenting with new ways of processing dates, inspired by the video Making pressed dates," says



We obtained a grant to install a local weather station and link it to a mobile app to send timely information to farmers

a local weather station and link it to a mobile app to send timely information to farmers. This will help them make better decisions for irrigation and crop production, especially with the recent increase in heatwaves," says Ali.

Ali and Elham did not stop there. They were inspired by the videos, but also by the way Access Agriculture links the mobile phone and projector app to its website, so the couple created their own quality website to disseminate knowledge. "We hope to expand this idea, promote the Access Agriculture videos and disseminate information on nutrition for rural women," says Ali.

Endowed with natural leadership qualities, Elham and Ali have identified and nurtured local community leaders to scale good practices.

Their advice to new ERAs: "You are the first to implement this new way of farmer-to-farmer extension using videos from other countries and need to find a way to make this sustainable. To develop innovative services as entrepreneurs, you need to think



outside the box."



A revolving fund for worms



Hesham Ismail

Hesham Ismail studied Arabic Language and worked as an agricultural development specialist for a local NGO in a small village until he became project manager with Eid Ala Eid (Hand in Hand) Foundation, which works in most governorates in Upper Egypt.

In 2020, Hesham was selected as part of a network of 18 teams of young Entrepreneurs for Rural Access (ERAs) in Egypt, supported by an ICARDA project. After interacting with him for three years, all the ERAs recall Hesham's key motto which he shared during video screenings when motivating his audience: "Use this (pointing at his brain), reduce this (tapping his biceps), fill these (tapping his front trouser pockets)". It is this basis of learning and the rationale

Hesham first learnt about compost in 2017 when his friend shared a Facebook post on how to turn farm residues into compost to grow healthier and more cost-effective food and feed. Today, you will be impressed by the extent of his knowledge and understanding of the importance of microbial life in the soil, a concept which is mostly not familiar to the millions of Egyptian smallholder farmers who often rely on chemical fertilisers and tillage. "It is important to help farmers see that soil is their main asset and investment, not their crop harvests only," says Hesham.

Hesham often discusses soil health concepts with Dr. Khaled Kotb, founder of Eid Ala Eid. Over the past decade, Khaled and



I feel like an old-time salesman, travelling from place to place to sell a product, but instead I am selling new ideas. I know it works when farmers request more videos to watch

behind agroecological practices that help farmers be smarter with their time, their labour and essentially their money. Hesham have supported farmers in selecting livestock breeds and improving nutrition for milk and meat production. Their success earned them community trust, which has made it easier to discuss the linkages between healthy animals, healthy plants, and healthy soil. "Farmers start to see the benefits once their cheese quality improves after they have planted clover with vermicompost. Soil microbiology is key, but highly theoretical, which is why we often start our interventions promoting vermicompost as a tangible and quick way to reduce the use of fertilisers," says Hesham.

Refore he received the solar-powered smart projector with the entire library of Access Agriculture training videos. Hesham would use his phone to share ideas with fellow farmers in the field. "It is a smart projector." Hesham emphasises, "because it travels and shows people how truly simple and cheap solutions can be! I feel like an old-time salesman, travelling from place to place to sell a product, but instead I am selling new ideas. I know it works when farmers request more videos to watch and seduce me with continuous offerings of tea to bribe me for my time." Hesham strongly believes in the importance of group work and farmer exchanges and dedicates a lot of his time travelling around Upper Egypt.

After screening the video Stronger plants with raised beds, Hesham has seen an entire village in Minia change the way it irrigates, making raised beds instead of traditional narrow furrows. "Now the farmers laugh about it. They see raised beds as a normal

thing, but it was not that easy at first to share this practice," says Hesham

While the irrigation method matters, it is not the only way to help farmers save water. This is where soil water retention capacity comes into play, which leads Hesham to talk about carbon in the soil and making compost.

Having access to experienced farmers is crucial when you want to make effective farmer-tofarmer training videos. Nawaya, Access Agriculture's video production partner in Egypt, worked closely with Hesham and Eid Ala Eid to involve trained farmers in the production of various videos. such as Stronger plants with raised beds and Crop rotation with legumes.





Hesham has established revolving loans by giving farmers worms to start up their vermicompost production. Once the worms have multiplied, farmers give some back to Hesham, so he has a continuous stock to share with more people

Building a living soil is a true passion of Hesham, which explains why one of his favourite videos is Making a vermicompost bed. After screening the video, made with experienced farmers

in India, Hesham shows a series of carefully selected pictures of Egyptian farmers and their local models of vermi-bins. The pictures resonate with his audience and reinforce the actions of the Indian



farmers. Hesham encourages the farmers to build a solid vermi-bin at the edge of their land, so it is easy for them to access it. "It is also a free awareness campaign for passers-by curious to learn more about the benefits of red wigglers," says Hesham.

Hesham has established revolving loans by giving farmers worms to start up their vermicompost production. Once the worms have multiplied, farmers give some back to Hesham, so he

has a continuous stock to share with more people. Some farmers also make a small profit by selling worms to their neighbours and family members who are interested in reviving their soils.

"We continuously inform farmers on how the use of chemical pesticides causes an increase in human diseases, while providing farmers with a regenerative and cheap alternative, showing them how to use vermiwash," says Hesham.

Amr, a farmer from Beni Suef happily shared with Hesham that, thanks to the vermiwash, a recurring fungus has disappeared from his crops, so he has now stopped using fungicides.

Hesham also engages rural women in discussions around health issues and motivates them to produce their own food rather than buying it from the shops. He trained women on using kitchen waste to make vermicompost and how to create their own vegetable gardens.

To diversify farms, food and income for the family, Hesham also often screens videos to rural women on poultry and dairy, and is happy to see many women start making their own yoghurt after they have watched the video Making yoghurt at home. One woman Om Ahmed from Beni Suef further innovated by making fruit flavoured yoghurt drinks, using seasonally available fruits from the nearby market, such as mango, mulberry and bananas.



Because these natural flavours are far healthier than artificial flavours found in the commercial bottles, Om Ahmed has a steady client base.

From June 2021 to December 2023, Hesham organised 80 video shows, reaching 2,739 people, of whom 33% were female and 22% were youth.



pay 1,500 Egyptian Pounds (28 Euros) for his consulting and training fees.

We continuously inform farmers on how the use of chemical pesticides causes an increase

in human diseases, while providing farmers with a regenerative and cheap alternative "The best way to help farmers transition towards agroecological farming is to do it with them. We know that ecological farming is cheaper and increases their profits, but in case farmers would incur losses, we agree to cover them. This helps us gain their trust as they know we are helping them for their own interest, not to sell them expensive inputs. We need to ensure food is affordable and healthier for our future generations," concludes Hesham.

"Videos help us to motivate small-scale farmers and their families to try something new, even if it's just a small trial to start with. And we ERAs must continue to do our research and share good practices. This is the foundation for this work," says Hesham.

Hesham has helped other ERAs across Egypt, as well as NGOs, to set up vermicomposting projects and train farmers. Some projects

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Combining training with a farm input shop



Mariana Zarif

For Mariana Zarif in Egypt, accounting was an unusual way to get interested in agriculture. She began working with her uncle Waguih as an accountant to support the local NGO El Dweir, which he founded in their home village Dweir, in Assiut governorate.

crop residues. "My uncle started by setting up compost demonstrations on his family land to show local farmers how to benefit from the straw, rather than burn it," says Mariana.

Through social media, Mariana heard about the Access Agricul-

I could see how interested the farmers were in the knowledge shared through the videos, as extension services have severely decreased in Egypt

After the harvest in Egypt the skies turn black when farmers burn large piles of wheat, maize and rice straw. Many people struggle to breathe. El Dweir started by organising farmer field schools and exchange visits to show farmers alternatives for managing

ture call for Entrepreneurs for Rural Access (ERA). She applied, was selected, received a solar-powered Digisoft smart projector and became one of the ERAs. "As agriculture is not my field of study, I could see the value in having other farmers featured in videos supporting our NGO's key principles. The farmers could learn about sustainable soil management, just as our NGO could benefit from new ideas coming from elsewhere," says Mariana.



Browsing through the 180 Arabic-language videos on the projector, Mariana became increasingly interested in supporting community outreach work:

"I attended all of El Dweir's farmer training events, and continually did research on the topics I deemed important from the videos, as I wanted to be able to answer questions after each screening." Mariana was especially eager to show the Compost from rice straw video so farmers could see the economic benefit of working together to reuse residues.

To promote their video screening services. Mariana and her uncle first met with the Directorate of Extension, and agreed to deliver their first screenings to the government-run network of local agricultural cooperatives. "I could see how interested the farmers were in the knowledge shared through the videos, as extension services have severely decreased in Egypt," says Mariana. Lead farmers attending the screenings invited Mariana and her uncle to their homes, agreed to host follow-up screenings, pay for the coffee breaks and even their transportation costs.

"It turned out that farmers were getting fines for burning crop residues. This additional financial burden triggered their interest to make compost," says Mariana. One farmer, Am Mohamed, made compost and saved money when he stopped using chemical fertilisers and became a local compost ambassador, with Mariana promoting it amongst his neighbours.

Many farmers started to copy his method and rent a shredder from Fl Dweir. At each show. Mariana screened several videos. including Stronger plants with raised beds. After a year, she could see that the farmers were able to

community, and has slowly moved from accounting to becoming a local knowledge facilitator. The video Hydroponic fodder was a game changer for her: "While watching it. I knew this was a solution for local women rearing

Seeing an increased demand for access to inputs such as grain to grow fodder, as well as for trays and other small equipment, El Dweir decided to set up a shop on its premises

save money, and water, by using compost and by improving irrigation through raised beds.

Mariana has screened over 40 different videos in her local poultry who struggled with the ever-increasing feed prices." Rural women in Egypt do not have access to land and they are limited to raising small animals at home. With hydroponic fodder, women could create feed in small spaces, and decrease their costs.

Inspired by the video **Sprouting** grains for livestock feed, El Dweir NGO applied for a fund to help train rural women and provide some basic equipment to grow sprouted barley. The NGO helped source barley and maize, and soon realised that they needed a small outlet to provide rural women with



the needed trays. Seeing an increased demand for access to inputs such as grain to grow fodder, as well as for trays and other small equipment, El Dweir decided to set up a shop on its premises.

Farmers could save money from buying inputs locally, and some also needed an outlet to sell. El Dweir's farm shop helped one chicken farmer make compost and agreed to buy it from him. The shop sold the compost as an alternative to peat moss for women's

had no intention to rear poultry. We also collected orders from farmers who wanted inoculants with nitrogen-fixing bacteria," says Mariana.

Farmers had learnt about this biological input by watching the video *Crop rotation with legumes*. As the demand for nitrogen-fixing bacteria increased, El Dweir established an agreement with the Ministry of Agriculture to help distribute them seasonally.

The NGO even started to produce and sell liquid biofertiliser to farmers to use in irrigation water. After screening a video made with Indian farmers, Organic biofertilizer in liquid and solid form, farmers asked Marianna if the NGO could produce it for them

With the diverse inputs to support ecological farming, Mariana and her uncle's shop has become popular. As a not-forprofit organisation, the NGO's shop allows farmers to pay when they are able to, taking into account their cash flow based on cropping cycles.

Thanks to screening videos with the smart projector, Mariana helped create many, small homebased enterprises for rural women. "When I hear of the impact of the videos, I think wow, I really did something! One woman told me that thanks to the hydroponic fodder video, the women feel equal to their husbands by bringing in income to their home," says Mariana.

The NGO even started to produce and sell liquid biofertiliser to farmers to use in irrigation water

rooftop farming. "We also had some women willing to make and sell us sprouted cereals, as they



In 2022, Amani Abdel Rahaman, a village neighbour in Dweir, started sprouting barley for her own chickens and ducks. When Mariana helped her win a small grant from Hivos worth 10,000 Egyptian Pounds (300 Euros), she slowly expanded to sell fresh feed to her neighbours.

Mariana always screens videos that complement each other, such as a Natural ways to keep chickens healthy, which shows how farmers in India use herbal medicine and two other videos that were developed with entrepreneurial women in Egypt: Making a business from home raised chicks and Working together for healthy chicks. "After screening a video, women ask questions and we quickly realise the answer is presented in another video, so we keep screening and expanding our training topics," says Mariana.

After 2 years of working with the smart projector, Mariana learnt a lot and began working in a more systematic way. She created a plan for using all the relevant videos, and each time she takes great care in understanding her audience. Initially, Mariana wanted to show women videos on making cheese and yoghurt, but it was not always successful. True, some

Making a business from home raised chicks

could implement it, but many women have no access to clean milk or have no space to raise animals. "I learnt from this that it would be best use of their time, if I knew more about their capacities before screening videos. And to do this, you need great local partners," says Mariana. "We must do our work with love, honour and commitment, as people's livelihoods are at play."

Thanks to screening videos with the smart projector, Mariana helped create many, small home-based enterprises for rural women

From July 2021 to December 2023, Mariana organised 111 video screenings through which she reached 3,786 people, of whom 70% were female and 42% were youth.

Mariana and her uncle continue to look for new local partners by meeting local civil society organisations, lead farmers as well as public agencies. They are now expanding beyond their municipality and even their governorate to new areas in Upper Egypt. In the near future, they want to establish new teams of ERAs across Egypt to screen Access Agriculture videos and continue to expand their impact on local economic development and the environment.



Scaling the Slow Food movement in Kenya and beyond



Elphas Masanga

Eager to help rural people, Elphas Masanga studied agriculture and biotechnology at Bukura Agricultural College in Western Kenya. But after he graduated in 2014 and returned to his home village, he realised he couldn't solve any of the problems farmers were facing. "I could only work in a laboratory, which was of no use to the people in my village," Elphas says.

So, he embarked on a 6-month hands-on course on organic farming at the Kenya Institute of Organic Farming and took several short courses on permaculture and bio-dynamic farming.

Then Elphas began working for a local NGO, Seed Savers Network, where he learnt the importance of biodiversity conservation, before joining Slow Food Kenya. solar-powered smart projector to screen videos in farm villages.

The videos Farmers' rights to seed: experiences from Guatemala and Farmers' rights to seed: experiences from Malawi convinced farmers that food sovereignty starts with becoming guardians of traditional crop varieties. "When farmers see other farmers from Guatemala or Malawi they are so excited. It gives them extra motivation and mileage," Elphas says.

Food Biodiversity and Agroecology is one of Slow Food Kenya's five strategic areas. "We have screened many videos on soil management, pest and disease management, and marketing of agroecological farm products. The Access Agriculture videos have played a vital role in our work," says Elphas. From 2021



The videos inspired the creation of 24 community seed banks in Kenya

By 2019, Elphas had discovered Access Agriculture videos, and was using them to train farmers. In 2021, Elphas was accepted into Access Agriculture's network of young Entrepreneurs for Rural Access (ERAs), and he received a

to 2023 he established 65 new community and school gardens and taught agroecology to nearly 660 school children, and more than 2,550 adults. Of the people reached, 44% were youth and 62% were women.

As an ERA, Elphas is encouraged to use his smart projector to make money. While Slow Food Kenya has contracted Elphas various times to show videos in villages, one of his main clients is Participatory Ecological Land Use Management (PELUM) Kenya, a network of 65 civil society organisations. PELUM often requests Elphas to screen Access Agriculture videos during meetings and training of trainers' sessions for which he charges 3,500 Kenyan Shillings (25 Euros).

When he leases the smart projector kit to other organisations, Elphas makes sure to be the one who operates the equipment to avoid anything breaking down. In 2022, he earned 68,000 Shillings (500 Euros) from leasing the kit.

Many farmers want their own copies of the videos, so Elphas also sells preloaded flash drives and DVDs for 50 Kenyan Shillings (0.30 Euro), and an extra 20 Shillings (0.12 Euro) for each video loaded.

Besides the videos from Guatemala and Malawi on Farmers' rights to seed, Elphas has also screened two videos filmed in India, on Community seed banks and Collecting traditional varieties. By the end of 2023, the videos inspired the creation of 24 community seed banks in Kenya.



Many farmers want their own copies of the videos, so Elphas also sells preloaded flash drives and DVDs

One seed bank was started by the Belacom women's group in Gilgil, in Nakuru county. These 15 women take pride in growing, selling and exchanging seed of many crops, such as Russian comfrey, kale, spinach, amaranth, and cassava. The women sell their seed and agroecological produce at the weekly Gilgil Earth Market, part of the global network of Slow









Food Earth Markets, managed by the farmers, without middlemen. To strengthen the local organisations involved in Earth Markets, Elphas has screened videos about food marketing, including some filmed with farmers in Latin America on <u>How to sell ecological food, Creating agroecological markets</u> and <u>A participatory guarantee system.</u>

Elphas starts each session by browsing the Access Agriculture video library on the projector and letting the farmers choose the videos to watch. He shows them the titles that are available in *Kikuyu*, a local language. Sometimes, he screens videos in *Kiswahili*. If the farmers want to see videos that are not yet translated into these languages, then Elphas shows the English version.

When the 20 members of the Kahua-ini community garden group from Wanvororo saw how farmers in India made their own Good microbes for plants and soil, the group started producing their own solution of good microbes. Mungai Gathingu, who hosts a seed bank and is custodian of the community garden, used to grow French beans under contract farming on his halfacre field. At one point, the farm was producing almost nothing. By watching videos and putting what they learnt into practice, Mungai and fellow members learnt to improve their soil fertility, increase crop production, diversify their farms and earn good money by selling organic produce along with bottled mixtures of good microbes at the Slow Food Nakuru Earth Market

After watching the video Organic biofertilizer in liquid and solid form, the 18 members of the Bee My Partner youth group in Njoro started a thriving business producing solid biofertiliser. This has earned the youths respect in their community and completely changed their attitude towards agriculture. They invested their earnings in beekeeping and fish ponds. They now also rear black

This has earned the youths respect in their community and completely changed their attitude towards agriculture





schools began to use drawing, singing and poetry to teach the children about healthy food. The children began to see agriculture as a career rather than as a a job with no prospects," says Elphas.

To counter the degradation of indigenous peoples' food systems,

tries in agroecology, indigenous peoples' and women's rights. During the six-month course he also had a chance to physically meet other Access Agriculture ERAs from Uganda and Tanzania, who are also members of the Slow Food movement.

As the coordinator of the Slow Food Youth Network in Kenva and the communication person for the Slow Food Youth Network in Africa. Elphas realises that farmers need a different kind of advice: "The government extension service in Kenya is decentralised and heavily supported by multinationals. Therefore, many government extension workers only promote seed and agrochemicals from companies. Kenya needs more ERAs like myself and more smart projectors, to help farmers explore ecological farming and healthy food through Access Agriculture videos."

After watching the video, the Kenyan schools began to use drawing, singing and poetry to teach the children about healthy food. The children began to see agriculture as a career rather than as a punishment

soldier flies to feed the fish and poultry on their integrated farms.

In 2023, Pendo Internationale Zusammenarbeit, a non-profit organisation of Kenyans living in Germany, who promote wealth creation among youth, women and vulnerable groups in Africa, engaged Elphas to screen Access Agriculture videos to schools in Nakuru County, for which he was paid 145,000 Kenyan Shillings (1,100 Euros). Elphas trained hundreds of children in various schools.

The video <u>Teaching agroecology</u> in <u>schools</u>, showed how a school in Peru taught the value of local culture and of a healthy lifestyle by including farming and traditional food in the school curriculum. "After watching the video, the Kenyan

Slow Food International helped to organise a Regional Academy for Trainers on Agroecological and Indigenous Peoples' Food Systems in 2023.

As Elphas was one of the trainers, he used the videos to train people from ten African coun-

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Nurturing youth, good microbes and seed



Maureen Maina

Maureen Njeri Maina grew up in Nyandarua county, well-known as a food basket in Kenya, but her family did not allow the girls to work in the field. "We were only expected to cook meals, even though I so longed to work in the garden," she recalls.

But at the age of 14, Maureen became president of the young farmers club at Wanjohi Girls High School. She loved it so much that she knew this pointed the path for her future. Maureen pursued a diploma in Bio-intensive Agriculture from Manor House Agriculture Center, Kitale, in Western Kenya.

an Entrepreneur for Rural Access: a farm advisor who would be equipped with a smart projector containing thousands of quality training videos in local languages to promote agroecology. Not believing that she would even be considered, she still applied. Two months later, Maureen was shaking from nervousness when Access Agriculture invited her for an interview and was thrilled when she received the news that she was selected.

"It changed my life completely. I was already working as a field trainer promoting permaculture, but I lacked opportunities to learn

It changed my life completely.
I was already working as a field trainer promoting permaculture, but I lacked opportunities to learn new things and thought I would be giving the same training over and over again for years to come



Deeply interested in farming with nature, in 2021 Maureen got a Facebook alert from PELUM Kenya, a sub-regional network that promotes agroecological principles and practices, about an online competition to become

new things and thought I would be giving the same training over and over again for years to come," says Maureen.

Maureen now screens videos in the local *Kikuyu* language

to schools and farmer groups whenever they are willing to cover her costs. Because she does not find it easy to collect money from poor farmers, she mostly screens videos for free in order to attract a large audience.

"Once farmers have seen the videos, many want to have a copy on their phone. I then send them the videos via WhatsApp and charge them a small fee. At first. I only asked 20 Kenvan Shillings per video (0.10 Euro) to see whether farmers would be interested. Now that I know, I charge 50 Kenvan Shillings (0.25 Euro) per video. Often, farmers want to have all four videos that I screened that time," Maureen says.

Maureen also downloads factsheets from the Access Agriculture video platform, and has translated some into Kikuyu, the local language. After video shows, she sells them to those farmers who are interested but don't have a smart phone. She charges 20 Kenyan Shillings per factsheet (0.10 Furo).

"After three years of screening videos to farmer groups and schools, I have gained so much knowledge, developed my selfesteem and become more confident. Many people respect me now for what I do. It even opened the door to a scholarship," Maureen confides

With a scholarship worth about 5,000 Euros, Maureen got signed up for a one-year online certificate programme at Dr. Elaine's Soil Food Web School. "I am sure that the knowledge I gained from the Access Agriculture videos strengthened my application. I can also easily relate to the topics covered in the course." Maureen savs.

Lalso download factsheets from the Access Agriculture video platform, and some I have translated into Kikuyu, our local language. After the video show, I sell them to those farmers who are interested but don't have a smart phone

Since 2021, Maureen has been working in the Thika Children Rescue Centre in Kiambu county, a one-hour drive from Nairobi. At this government centre, she has been conducting video trainings for homeless, abandoned and vulnerable children, rescued from the streets of Nairobi. The



Centre provides training, food and accommodation in a safe haven to boys whose ages range from 6 until their twenties. Most stay only for six months, but quite a few are long-term.

From 2021 to 2023, Maureen has screened videos to about 1,300 people, 62% were women and 40% were youth.

With support from Charity Seeds, an NGO that specialises in school gardens, Maureen established a demonstration garden where the children can put into practice on their plot what they have learnt from the videos. "The video Good microbes for plant and soil is very inspiring and has triggered kids to grow their own good microbes," Maureen says. "Even though in the video they use chickpea flour, we simply replaced it by groundnut flour which is readily available here. And we use over-ripe bananas as a source of sugar. When you understand the principles, it is simple to apply them to your own context." The Centre is now self-sufficient in vegetable production even during dry spells.

Maureen often shows the children, including those from other schools who come to visit her demo garden, two different soil samples: one enriched with compost and good microorganisms, and another infertile soil that is like dust. They compare the texture, the colour and the smell. Rich soil smells like a forest and has many living creatures in it, as shown in Seeing the life in the soil.

Healing soils also helps to heal souls. Two years ago, a 25-year-old man, Roberto (not his real name) arrived at the Rescue Centre with a drug and alcohol addiction. He had abandoned his wife and son. In 2023, completely freed from his addictions, he built a small house on his father's land for his wife and son. Being tremendously grateful, he continues to work as a volunteer and trainee at the demo garden of the Rescue Centre during the week and visits his family on weekends. One day, he said to Maureen: "You made me a man, because now I can take care of my family."



After three years of screening videos to farmer groups and schools, I have gained so much knowledge, developed my self-esteem and become more confident. Many people respect me now for what I do







demo garden and to buy ingredients such as groundnut flour to prepare our microorganisms," Maureen explains.

Healthy soil, healthy seed and a healthy spirit clearly go hand in hand. To new Entrepreneurs for Rural Access, Maureen has this to share: "Don't look at the earnings at first, but focus on what you want to achieve. If it is something that comes from your heart, the money will come."

Healing soils also helps to heal souls

With the rising costs of farm inputs, and the number of young kids in Nairobi getting into criminal activities and drug abuse on the rise. Maureen and Roberto are planning to set up a small business to produce and sell biofertiliser. If over time, they can establish a network across the country, they are convinced that it will employ a lot of youth.

In agroecology, healthy soil is crucial, but so is vigorous seed of local food crops. After having watched the videos Farmers' Rights to Seed and how to store seed of different crops, Maureen and her colleagues also decided to establish a small seedbank at the Rescue Centre, training the voungsters about seed collection, cleaning and storage. Seed and seedlings of moringa, the miracle tree, are the most popular, but so are seeds of hibiscus, indigenous black nightshade, vegetables, local cherry tomatoes, coloured maize, and coriander.

The nursery holds a collection of seedlings of herbs, such as lemon grass, mint, rosemary, sage and lavender, along with various fruit trees. "The money we generate from selling seed and seedlings helps us to run the

In agroecology, healthy soil is crucial, but so is vigorous seed of local food crops



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Videos to promote healthy, local food



Sylvia Wangui

In 2021, freshly graduated from Kenyatta University where she got a degree in Commerce, Sylvia Wangui Njonjo started working as a field officer at Community Sustainable Agriculture and Healthy Environmental Program (CSHEP), a community-based organisation in Kenya. CSHEP empowers children, youth and women on the benefits of agroecology in Ndeiya-Limuru, Kiambu county and Kiserian, Kajiado county, both a one-hour drive from the capital Nairobi.

much attention to it," Sylvia says, "but my recent work with farmers who practice agroecology has opened my eyes about the importance of healthy food and the many challenges farmers face."

After being selected as an Access Agriculture Entrepreneur for Rural Access (ERA), Sylvia received training on how to use the smart projector. "Soon, one organic farmer in my community heard about this smart projector

Every community has different needs, so Sylvia learnt to listen to farmers' aspirations

"Even though my parents have been into farming, I never paid



and was keen to use it to train other village women, so I started to rent it out as a way to generate some revenue. For a day, I charge 2,000 Kenyan Shillings (13 Euros)," Sylvia says.

Every community has different needs, so Sylvia learnt to listen to farmers' aspirations. When crops are attacked by pests, farmers often think that spraying pesticides is the only solution.

For a few years, maize crops have been attacked by the fall armyworm, an invasive pest that came from Latin America.

By screening the video <u>Killing</u> fall armyworms naturally, many farmers learnt how to manage the insect pest without the need to buy toxic pesticides, which pose severe risks to human health and the environment.

Ndeiya is semi-arid, so farmers are keen to learn about ways to conserve water. One of the Access Agriculture videos, *Zaï planting*



to feed her family and a regular source of income.

We combine the Access Agriculture videos with other training materials and this has been really powerful to change mindsets

pits, that was developed in West Africa caught farmers' attention. In the video, farmers dig small pits of about 25 centimetres, and add a handful of composted manure before millet or sorghum is sown.

"Farmers creatively decided to adapt the idea as they were more interested in producing food throughout the year," Sylvia says. Instead of pits, they dug out zaï trenches, filled them up with green matter and compost, and then planted vegetables. They then covered the bed with mulch.

Mary Mucichu, a member of the Fanaka Organic Farmers in Ndeiya, is pleased with her zaï trench. She regularly harvests kale, collard, black nightshade, spinach and tomatoes from her small piece of land, which gives her healthy food

CSHEP also collaborated with Egerton University and Humbolt University's Centre for Rural Development to make a training manual on African indigenous leafy vegetables. "We combine



the Access Agriculture videos with other training materials and this has been really powerful to change mindsets," says Sylvia. "Mary has embraced everything about healthy food and eating well. The whole family now eats more greens from their home garden. She also started using herbs, such as mint, and hibiscus flowers to make tea."

fresh produce from farmers on Friday evenings, to then sell at the Ngong Organic Farmers market on Saturday mornings. "Most of the produce is pre-ordered, so we make customer-tailored organic food baskets." Sylvia adds.

To encourage more youth and women to engage in healthy food production, it is crucial to offer a wide range of opportunities from which people can choose what they like doing most





Inspired by the videos <u>Creating agroecological markets</u> and <u>A Participatory Guarantee</u> <u>System</u> (PGS), which were made with organised farmer groups in Bolivia, Sylvia and her colleagues at CSHEP are also setting up its own system to help farmers market their organic produce without going through expensive third-party certification. With their nascent PGS, CSHEP is now buying

From 2021 to 2023, Sylvia reached a total of 454 people, 62% being female and 21% being youth. To encourage more youth and women to engage in healthy food production, it is crucial to offer a wide range of opportunities from which people can choose what they like doing most. It is also important to have options that allow people to generate a regular revenue without the need for land





or heavy upfront investments.

That is why the Ngong Organic Farmers also took a keen interest in videos related to food processing, such as the one on <u>Solar drying of kale leaves</u>, after which they began solar-drying mango, kale, spinach, coriander, black nightshade, and leaves of cowpea, spider plant (*Cleome gynandra*) and amaranth. Nicely packaged, these products now provide consumers with healthy and diverse food throughout the year.

"Consumers in urban areas are increasingly aware about the need to eat healthy, while young people are eager to have a job. There is so much we can offer to our children, youth and farmers through the Access Agriculture videos," concludes Sylvia.

Consumers in urban areas are increasingly aware about the need to eat healthy, while young people are eager to have a job. There is so much we can offer to our children, youth and farmers through the Access Agriculture videos

Besides training farmer groups, Sylvia has also shown Access Agriculture training videos in two schools – Makutano Secondary School and Njoro Primary School, after which students set up vegetable gardens and small irrigation systems.

As advice to newcomer ERAs, Sylvia stresses the need for them to learn from farmer communities, to learn from other ERAs in their country, and to engage with other stakeholders when providing training.



Offering the best combo: a video hall with food shop



Brian Anafi

Brian Anafi was born in Blantyre, Malawi's commercial city, but grew up in the capital city, Lilongwe, where his parents had moved to for work not long after he was born.

From 2012 to 2015, Brian studied Agriculture at the Natural Resources College in Lilongwe. "After my studies, I picked up short-term employment with a local NGO to run surveys in Mchinji District in the Central Region of Malawi. During that season there

Natural Resources. Having learnt from his time in Mchinji about the many opportunities in the food business, Brian partnered with a fellow student and established a small grocery shop on campus in his friend's room, where they also made and sold beef sausages inspired by the video <u>Making</u> sausages from rabbit meat.

When he was about to finish university, he heard about the competition that was run by Access Agriculture, where young

Brian rented a room next to his home, where he set up a video hall where farmer clubs and cooperatives from surrounding areas come to watch the videos



was a drought, which made it difficult for farmers to grow food. I came across traders who were buying and selling maize at a profit. But there was no proper structure to their businesses, which pushed me to want to go back to university to do a degree programme, and later run my business with a proper structure," says Brian.

In 2017, Brian went to Lilongwe University of Agriculture and

people, either as individuals or in teams, would receive a smart projector. Brian applied and was proud to be selected..

After his studies, Brian decided to move to Mchinji, because he was already familiar with it, and had seen various business opportunities there. He established linkages in the nearby communities to gain traction for his business in digital extension as an Entrepreneur for Rural Access (ERA).





"My initial approach was to go out and introduce the smart projector to extension workers closest to me, and to farmer clubs in my area, rather than individual farmers because clubs do all the mobilisation for me. I was not charging them anything for the video screenings. Projectors were not common in agriculture. so it would have been difficult for farmers to just know what exactly I was offering."

Once the word spread around, Brian changed his business model and decided that he was not going to be heading out all the time to showcase the videos. Instead Brian rented a room next to his home, where he set up a video hall where farmer clubs and cooperatives from surrounding areas come to watch the videos. The earlier connections with the farmer clubs and extension workers helped spread the word on the projector, and soon enough farmers were flocking to the centre to watch videos.

From 2021 to 2023. Brian screened videos to more than 1,000 people, 55% were youth and 45% were women.

Brian had a local carpenter craft



The video hall is used to not only screen Access Agriculture videos. I bought a decoder that allows me access to sports channels, so I also beam football games on demand

a holder for the smart projector. lithium battery, and tripod stand, which was fixed firmly to the roof, so the audience can never disturb the equipment.

Whenever a farmer club makes an appointment to come and watch videos, Brian explains the different categories of videos available on the smart projector and listens to what the farmers do on their farms. Brian then highlights relevant videos, after which the farmers select those of interest to them. At other times, the

video is followed by a discussion of what they have learnt, and what they think they can practice on their farm. Brian responds to any questions the farmers may have. He shows farmer training videos twice every weekend, usually on Saturday and Sunday mornings, as the afternoons are for football games. He makes 80,000 Malawian Kwacha (65 Euros) a month from the farmer clubs. He charges fees to the clubs regardless of how many farmers come, rather than charging individual farmers.

The most popular videos have tended to be those that touch on value addition and post-harvest management. During the discussions after watching videos, farmer clubs sometimes ask questions on where to get equipment and how much it may cost, so Brian points them in the right direction if he has ready answers, or does some research first and gets back to them with guidance through the leadership of the clubs.

The video hall is used to not only screen Access Agriculture videos. "I bought a decoder that allows me access to sports channels, so I also beam football games on demand to people who just want to come and watch football, especially games from England, or whenever the Malawi National Football Team is playing," says Brian concerning his newly established revenue streams, "Usually I charge 250 Kwacha (0.20 Euro) per person per game. And in a good month I make up to 137,000 Kwacha (110 Euros), of which 80,000 Kwacha



When I started making and selling peanut butter and cooking oil, the sales were not that good, until I began to screen videos in the hall

clubs specify beforehand what topics they want, Brian pre-selects several, and the farmers just choose from that list.

On average, the farmer clubs watch four videos in a session. Each

(65 Euros) is net profit. The main expenses are for the DSTV (Digital Satellite Television) and rent for the video centre," he adds.

But that is not all – the smart projector has also helped Brian to increase his revenues on his other existing business. grocery store. "Encouraged with my experience of running the grocery store in school and also making and selling sausages, I started making peanut butter and cooking oil, which are expensive for most people," he says. When the farmer clubs and cooperatives come to watch videos, and when others come to watch football games, they get to see these products that Brian sells under his Zafarm business brand, in the shop just next to the video hall.

"When I started making and selling peanut butter and cooking oil, the sales were not that good, until I began to screen videos in the hall, in 2021. That year, we made around 1.5 million Kwacha (1,200 Euros) in sales. The next year, we resolved some issues with the machine we were using and doubled our revenue to 3 million Kwacha (2,400 Euros). We even bought our own location for the food processing. By June 2023, we already surpassed the revenue figures of last year," adds Brian proudly, whose most profitable product is the peanut butter, followed by sausages and cooking oil.

The farmers that come to watch the videos are also being impacted positively, something

which Brian is all too eager to point out. "Pondani Cooperative, which has mainly women and youth members, have seen different videos, such as the one on Making groundnut oil and snacks. The cooperative began to experiment with making cooking oil, have got better with time, and are now working with a local NGO to set-up a refinery from where they can produce cooking oil commercially," says Brian.

The youth are also being impacted by these videos. During the last planting season, many farmers had planted sova because it was one of the most profitable crops the previous year, but for some reason, soya did not do well and the proceeds were far below what farmers expected. Three young men who had been coming to watch farmer-to-farmer videos at the centre, had also planted soya and they had a good harvest. "They told me it was because they had applied what they had learnt from the video on Soya sowing density. The farmers are not just watching the videos, they are also trying some of the technologies featured." says Brian.

Brian is convinced that there are plenty of opportunities for ERAs to help farmers improve their farming ventures, but also opportunities for ERAs to grow their own businesses as they use the smart projector to screen videos to farmers. "As ERAs, we should actively seek all opportunities around us that are offered by the smart projector," says Brian.



Becoming a role model for rural young women



Grace Harrison

Grace Harrison was born into a farming family in Lilongwe District, close to the border with Mozambique. At the age of 13, she joined the Permaculture Club in M'bang'ombe primary school, where schoolchildren learn to care for their local environment and produce their own diverse and nutritious food without the need for chemical inputs. She remained actively engaged with a similar student club working on sustainable farming at her secondary school.

tural extension," Grace says with determination. "From the earnings I have made from screening training videos to farmers, I have become independent. I have been able to build a small house and pay for my own university fees," she adds.

Most of her clients have been schools and Village Saving and Loan Associations (VSLA), for whom she charges 7,000 Malawian Kwacha (6 Euros) per video show. Generally, three to five

Equipped with a smart projector and hundreds of videos in various Malawian local languages, it boosted her self-esteem

Grace graduated with high marks and became an Access Agriculture Entrepreneur for Rural Access (ERA) at the age of 18. Equipped with a smart projector and hundreds of videos in various Malawian local languages, it boosted her self-esteem. She applied to study agricultural extension at the university, but was assigned to the Kamuzu University of Health Sciences instead, to study midwifery. "It must have been God's will that I had to do something in health, but after this I still plan to study agriculvideos are shown per session, and many VSLA clubs request to watch videos every two weeks. As Grace is often busy with her studies, she has trained a team of three other entrepreneurs, namely Binfred Mthambala, Kambeni Chimtolo and Precious Chimangiro. As rural women and youth make up the bulk of their audience, video screenings are done either in the morning or late afternoon, but never in the evening.

"At first, many village women pretended to be busy, but when

they see that other women have improved their lives after watching the videos, they all want to join. And because the projector is a new thing that no one has ever seen before, often 20 to 30 youths attend the shows. They see me as a young role model. It is really wow," says Grace full of excitement.

In just two years, Grace has shown videos to about 5,000 people, of whom 64% were women and 56% were youth.

It is hard for the young entrepreneurs to provide quantitative impact assessments, as they do not do formal surveys, but in her home village, Grace has definitely seen many changes, of which she gives two examples:



After watching the video Making yoghurt at home, Soflet Msandula, chair of the local Area Development Committee from Kazukutu village, started making yoghurt and selling it in different communities and markets. After watching some of the videos on soya bean, such as Soya sowing density and Making soya cheese, she also began growing soya, a crop she had never grown before, and preparing it. Her life has changed in so many ways: she uses

the money earned for paying the school fees of her children and to buy farm inputs. She also teaches other people in her village how to make soya cheese. The people are also benefitting, especially in feeding their children.

Inspired by one of the videos, Monica Jevinala, chairperson from the Chikonde Youth Club in Kazukutu village, started to produce yoghurt for her family and relatives. Milk is readily available in the village, so she can make yoghurt any time she wants. Her three children are growing up healthy and her husband has become a great fan of her yoghurt.



One of the videos screened to all VSLA groups was exactly on the topic of <u>Village Saving and Loan Associations</u>, so one would think that the groups would not learn anything new from it. But on the contrary. Grace believes it led to

one of the most striking changes she has seen. Earlier, the VSLA would just collect money and save it until the end of the year and then return the savings to the members. Once they had seen the video, they no longer collected money for just saving it, but to start businesses. From then on, women members agreed that each could borrow money and pay back with a small amount of interest to the group. Most women start with businesses, such as making snacks from soya beans, called African cakes, or selling clothes or other goods. At the end of the year, they realised the group had made more savings.

Asked about her future plans, Grace says: "With the earnings from the video shows, I have also bought about one hectare of land in Kamenya village on which I want to grow crops. And I want to travel all across Malawi with the smart projector, as I know so many rural women are eager to do something, but they lack ideas. By 2028, I want to be a role model for all of Malawi, not just for my home village."



Nursing babies, trees and bees



Happy Mbewe

27-year-old Happy Mbewe, like many young people who grew up on a farm, studied agriculture with a drive to be able to improve the lives of farmers, so when he graduated from Lilongwe University of Agriculture and Natural Resources in 2021, he wondered how to make the best use of his acquired skills.

and screening them in schools in his home village Limera in Machinga District using his personal equipment. The quality of the videos was poor and never in the local language. His projector could only screen videos to small audiences and did not allow for sharing the videos afterwards with individuals. Because his equip-

Our first experience was really awesome. We realised how much people appreciated the videos in the local language. People believed in us, so our confidence grew

From 2019, Happy had already started helping farmers by downloading relevant Youtube videos



ment was not portable, Happy feared that his equipment would break down every time he took it out on the road. Given all this, Happy's profit was really small. His initiative, however, had not gone unnoticed.

One day in 2020, someone from the Ministry of Agriculture informed him that there was a competition organised by Access Agriculture where selected entrepreneurs would receive a smart projector. Happy and his young team mates Austin Chikopa, Ernest Gustino and Grace Botoman applied, were shortlisted, selected and trained as Entrepreneur for Rural Access.



"The first two to four weeks, we screened videos for free in villages, schools and clinics, as we wanted people to know what we had on offer. We showed videos for just one hour to create an appetite. Our first experience was really awesome. We realised how much people appreciated the videos in the local language. People believed in us, so our confidence grew," recalls Happy.

"Our first contractual assignment was for a local church who had organised an overnight event on Christmas eve. They wanted us to screen their videos using our smart projector. Among the churchgoers were teachers, people who were working for NGOs and grassroots organisations", so different organisations started to contact Happy and his team, and their clients have been increasing ever since.

In 2022, the team members decided to formalise their partnership and established their own

NGO, called Faiths Fraternal for Development.

Happy and his team negotiate each contract based on various conditions and expectations. For farmer groups, the bottom price

Mixing different audiovisual materials to educate people, and combining topics on health, agriculture and nutrition have proved to be really powerful

for a 2-hour video show is 5,000 Malawian Kwacha (about 5 Euros). Some people bring their USB stick, while others want to have a copy of certain videos on their phone. The team share that directly from the smart projector through Bluetooth or send them a compressed file afterwards via WhatsApp. Per video, they charge 100 Kwacha (0.10 Euro).

Yellow Star Clinic in Nsanama township in Machinga district in southern Malawi asked the team to screen videos to pregnant women and those breastfeeding. The contract was for three months and earned the team 150,000 Kwacha (150 Euros). The clinic had their own videos on family planning and some episodes of a local

TV Play called *Tikuferanji* (meaning "Why are we dying"), which has some episodes that deal with HIV/ AIDS, sexual violence and healthy maternal life. The videos were combined with Access Agriculture videos on healthy food production and preparation, such as *Producing healthy plantain and banana suckers*, *Making banana flour*, *Enriching porridge with baobab juice*, and *Creating agroecological markets*.





"Often, we have no chance to visit these young mothers in their homes to see what they applied from watching our videos, but one Monday afternoon, a mother by the name Elita John arrived with soya milk that she decided

to make after watching the video Making soya cheese. She had several bottles and sold everything in the clinic," says Happy. When Happy visited Elita half a year later, she was still in milk production. She had even joined a local women's organisation of soya milk producers in order to have access to modern equipment.

Mixing different audiovisual materials to educate people, and combining topics on health, agriculture and nutrition have proved to be really powerful. Based on their positive experience with the Yellow Star Clinic, the team regularly sends proposals to different clinics and health care facilities for more opportunities. Mid-2023. the team was invited by the District Council to submit a proposal to show videos across Malawi on reproductive health. A contract worth 20 million Kwacha (20,000 Euros) is currently being considered, which would be a great achievement for this young, committed team that is among the eight shortlisted proposals from 52 applications.

Because of their innovative approach in using videos to train rural people, Happy's NGO received 8,500 US dollars from an American organisation called 'Protect our Planet Movement' to set up three community-managed tree nurseries in Machinga district, southern Malawi. Their work hasn't gone unnoticed: film crews from Malawi and South Africa made documentaries about their afforestation work and in

2024 they were awarded in the category of best Nature Conservation by 'Protect our Planet Movement' at an award ceremony in New Delhi, India.

Deforestation is a huge problem as people have been cutting trees in the commons, to provide wood for cooking and for funerals.

"We engaged the adzukulu (local gatekeeper) in various communities as they are highly respected by all villagers, including the chiefs, and convinced them of the need to plant trees. They convinced every household to assign one volunteer household member to help maintain the nursery and plant trees," says Happy, "In each nursery, about 100 people are taking care of the 5,000 tree seedlings and trees, working in shifts of 10 people at a time."

Happy and his team screened Access Agriculture videos on agroforestry, such as Animals & trees for a better crop and Turning honey into money in the communities. While doing so, they discovered that some youth groups used to be involved in beekeeping. But, some of them, such as Pabwalo youth organisation in Jasitene village and Limera Youth organisation in Limera village, both in Machinga district, had abandoned apiculture because of lack of access to forests to place their hives.

"We have now written contracts to ensure the young people have permanent access

It has been an amazing journey since we started using the smart projector with Access Agriculture videos. We have been in high spirits ever since



to the communal forest to work with their bees," reveals Happy, clearly pleased about these positive developments that revive the spirit of rural youth.

Healthy food, good hygiene and a healthy environment for plants and bees all go hand in hand to have thriving communities.

"It has been an amazing journey since we started using the smart projector with Access Agriculture videos. We have been in high spirits ever since," says Happy. From 2020 to 2023, Happy and his team reached 7,900 people, 76% were youth and 63% were women.

Happy has some advice to share with new ERAs: "Don't hide, but expose yourself and showcase what you have. People like what you have to offer and soon people will be calling you for your service. There are so many things you can do with the smart projector, but you have to sit down and reflect on what you love doing most, and then pursue this."



Osman Majid: a DJ with a cause



Osman Majid

In 2013, at the age of 13, Osman Majid and several of his friends were jointly running a "burning centre": a small village shop that sells music and entertainment videos on DVD, on memory card or directly on cell phones.

A year later, Osman bought an old computer and set up his own burning centre: "I did not have a shop yet, but took my computer outdoors whenever someone came to buy a video or music."

by young rural boys, locally called Deejays (DJs), as potential distribution channels to get farmer training videos into the hands of farmers across Malawi.

A year later and by way of experiment, Access Agriculture distributed three DVDs with videos on *chilli*, *rice* and the parasitic weed *striga*, all translated into one of Malawi's local languages, *Chichewa*, to some 95 DJs in southern Malawi. Osman was thrilled to be one of them:

Once people get to know the value of the videos, they don't complain anymore that they need to pay



As of 2023, Osman runs a thriving business with his 28-year-old brother Ahmad Njenga in their home town of Nathenje, on the outskirts of Lilongwe, the capital of Malawi. "Rural people all over Lilongwe district know me by now, as I have become famous for the agricultural videos," says Osman with modest pride.

Osman's journey makes an interesting read. Back in 2014 former Access Agriculture colleague Ronald Kondwani Udedi had identified the burning centres run

"I had the only burning centre in my area that also sold agricultural videos, so my shop started to attract more customers than the other burning centres. And when I received the smart projector in 2019 with the entire Access Agriculture video library, my popularity got another boost."

Where there are no schools close by, Osman makes announcements through village chiefs and screens the videos in church buildings. In villages that have schools, Osman asks the head-



master to inform their students, who will inform their parents of shows. He always obtains free access to the largest classroom in the afternoon, after school is over.

"Having a classroom makes it easy for me to collect money when people enter the room. Some school children attend, but also farmers both men and women and even the elderly people join," says Osman. Initially, Osman charged 50 Malawian Kwacha (0.04 Euro) per video shown per person, but it was not so easy, so soon he decided to just charge 200 Kwacha (0.17 Euro) per person per show, with shows often lasting for four hours, and five to ten videos being shown.

Every Wednesday, Thursday and Saturday, Osman or his

brother screen videos across Lilongwe district to groups of about 100 people. If it is a place where they come for the first time, they screen videos for free. Often villagers ask them to come back several times with a few weeks' interval, and then everyone who attends a show, pays. "Once people get to know the value of the videos, they don't complain anymore that they need to pay," says Osman smilingly.

Most of his clients are farmer groups and cooperatives, but



NGOs also solicit his services, for which Osman charges 20,000 Kwacha per day (17.5 Euros), plus expenses for travel and food.

Even though he runs one to two video shows per week, Osman says that the sales of farmer-to-farmer training videos in his shop create the most revenues. Mostly youth come to buy videos, often 6 to 8 at a time, for which he charges 100 Kwacha (0.09 Euro) per video. "On a day, I make 2,000 Kwacha (1.75 Euro) from selling entertainment videos, while I make on average 7,000 Kwacha (6 Euros) from selling Access Agriculture videos," says Osman.

Farmers never complain about the audio or visual quality of the videos they watch on their phones. Even on simple phones that only cost 10 Euros farmers watch videos, as most phones in Malawi come with a video function.

As the price of chemical fertilisers has risen sharply, young people are eager to get any video on organic and biofertiliser, so videos like <u>Human urine as fertilizer</u> are extremely popular.

Most times, when the youngsters return to their village, they help other farmers who have no phones or who lack digital

Human urine as fertilizer

skills to watch the videos. Farmers appreciate the support of these young people, which is a nice way to bridge the generation gap in farming. Sometimes, farmers will pay the youth a small amount or at times allow them to use a small part of their land to grow maize, tomato, onion, cassava or soya as a token of appreciation for granting them access to the videos.

Young people and women are interested in videos that relate to poultry and food processing, such as Storing fresh and dried tomatoes, as this requires no access to land. When Osman showed the video Making yoghurt at home in Pata village, some of the villagers learnt to make yoghurt and started a business. "Most of them did not know how to make yoghurt, but after watching the video they even started selling yoghurt. When I screen videos in a new area and people ask me for instance where they can get yoghurt culture, I contact the local extension officer who then shares the names of nearby shops."

Osman thinks that from 2019 to 2023, he reached 20,000 to 30,000 people in 26 villages. "Even during Covid I was able to reach more than 2,000 people per year with the videos," says Osman, which

On a day, I make 2,000 Kwacha (1.75 Euro) from selling entertainment videos, while I make on average 7,000 Kwacha (6 Euros) from selling Access Agriculture videos



Most of them did not know how to make yoghurt, but after watching the video they even started selling yoghurt

was no mean feat, considering the social distancing measures that were enacted nationwide. About 40% of his audience were women and 30% were youth.

To help farmers in other districts who may not have the time or means to travel to his burning centre, Osman plans to take his laptop out so he can copy the videos on the spot. Clearly, getting videos in the hands of those who need them has become Osman's mission in life.

As Osman was the first ERA for Access Agriculture, he has shared invaluable lessons with the subsequent groups of ERAs in Malawi, Zambia, Kenya, Tanzania, Rwanda and Uganda. The power of the ERA model when working around a pre-existing business and the need to understand one's business environment have been key insights that he readily shares during ERA orientation sessions organised by Access Agriculture.

Over the years, Osman has assisted in increasing the partnership network for other ERAs. The video shows he conducted with Self Help Africa and the GIZ-funded project 'Empowering Youth in Agribusiness' opened doors for these organisations to

work with him and other ERAs in Malawi.

For ERAs to be successful, they need to promote their services through multistakeholder platforms and national events as much as possible. Since 2019, Osman has attended the annual meetings of the Malawi Forum for Agricultural Advisory Services (MaFAAS) and in 2020, provided inputs in shaping the National Agricultural Extension and Advisory Services

Strategy 2020.

Young entrepreneurs like Osman are a source of inspiration for other youth to engage in agriculture and food, and be the voice of the new generation when engaging with already firmly established organisations in the agricultural sector.

Osman thinks that from 2019 to 2023, he has reached 20,000 to 30,000 people in 26 villages. Even during Covid he was able to reach more than 2,000 people per year with the videos



"No more fish for sex"



Pemphero Kumbani

While attending secondary school in Lilongwe, Malawi, Pemphero Kumbani's cousin worked at the Department of Fisheries and occasionally brought fresh fish for the family. Pemphero enjoyed the fish so much that he wished to have it every day. He knew he would study agriculture at the university, although he did not know which area to focus on. When the time to select university programmes came, Pemphero noticed that many of his peers chose crop production and

hero continued his studies while working and in 2022 obtained his Master of Science in Fisheries and Aquaculture from Lilongwe University of Agriculture and Natural Resources.

"When we were selected through the Young Entrepreneur Challenge Fund competition in late 2020, we received a smart projector and training from Access Agriculture. I was so interested to watch all the farmer training videos myself," recalls Pemphero.

One year after it started screening videos, the annual turnover of AquaLink Services increased by 43%

engineering, and very few opted for aquaculture. Pemphero was destined to fill that gap.

After obtaining his Bachelor of Science in Aquaculture at Mzuzu University in 2017, Pemphero and two of his classmates founded AquaLink Services to become a leading Malawi aquaculture input and advisory service provider. They had already seen that farmers struggled to get quality inputs, like pond liners, fishing nets, fingerlings and fish feed, along with good advice. Pemp-

"The first time we went out to a rural community, we screened the videos Food for fish and on Preparing low-cost concentrate feed. The feedback from the farmers was positive, and they wanted to see more videos. We did not charge anything, but several farmers purchased our equipment, such as fishing nets and fish cages."

As people began to see the value of the videos, the company established a pricing list. To screen videos in rural communities, it





charges 200 Malawian Kwacha (0.17 Euro) per person, while for associations and NGOs 20,000 to 25,000 Kwacha is charged (17 to 22 Euros) per day. After each show, the team makes copies of the videos freely available, so farmers can continue to learn and practice.

AquaLink has landed business contracts with development projects, international research centres, such as WorldFish and more recently with World Agroforestry to promote diverse farms with trees and ponds. Moreover, the video shows have added value to its core business: one year after it started screening videos, the annual turnover of AquaLink Services increased by 43%, from 35 million Malawian Kwacha (30.000 Euros) to 50 million Kwacha (43,000 Euros).

Depending on the client, different videos are shown. Young people are often interested in what they can do without the need to rent or own land. Within a week after having seen the video Using sack mounds to grow vegetables three young boys and two girls in Lumbadzi village, Dowa district, started their own little business. Each established five or more big bags in their backyard to grew a crop they thought would be easy to sell: rape, mustard, Chinese lettuce and even Irish potatoes. They harvest for five weeks and earn at least 10,000 Kwacha (9 Euros) each cycle.

AguaLink has shown Access Agriculture videos in the various vernacular languages spoken across the country: Chichewa, Yao, Tumbuka and Tonga. Most women like videos on organic fertilisers. natural ways to keep their crops and livestock healthy, and food storage and processing.

Young people are often interested in what they can do without the need to rent or own land

"The Access Agriculture videos also triggered women to change their perception about aquaculture," says Pemphero. "When they watched the videos, they realised



it was much easier than they had thought, so some have ventured into aquaculture."

Mrs Jamira Juma from Chingale village. Zomba, is one of the women who already had a small fish pond of 10 metres by 10 metres. With the learning from the

kilogramme (4 Euros).

In many communities, women are vulnerable to exploitation. This was the case for women in Nkhata Bay, a port town on the western shore of Lake Malawi. "Before fishermen reach the shore, their catch is often already bought up by fish traders. Women who process and dry fish are forced to procure from these middlemen who often want sex in return," explains Pemphero.

With support from an American Peace Corps volunteer, the women in Nkhata Bay joined their forces and the Mkwachi women's group became a reality. "We trained the women using the Access Agriculture videos. All the women eagerly helped to dig a pond of 20×30 metres, which is now managed by the group," says Pemphero. "With the pond they now have seasonlong access to fish and are no



When they watched the videos, they realised it was much easier than they had thought, so some have ventured into aquaculture

videos, she increased the productivity from 10 kilogrammes of fish to 50 kilogrammes, harvested over a 7-month cycle. Most of it is consumed by the family (about 1.5 kilograms of fresh fish per week), providing the major source of protein, while some fish is sold at the market at 4,500 Kwacha per

longer prone to abuse. No more fish for sex."

From 2021 to 2023, the team screened videos to 3,650 people. of whom 58% were women and 65% were youth.

Asked about the company's



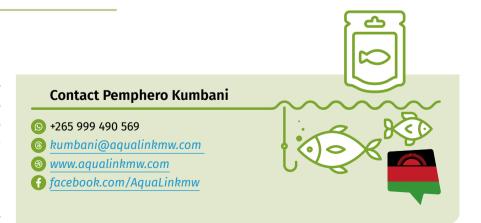
to value what you have on offer, worthwhile contracts will come."

future, Pemphero illustrates how socially committed they are to building a prosperous nation and leaving no one behind: "We are currently registering ourselves with the authorities to establish an aquaculture training centre in Lilongwe. Our first target group will be prisoners, as they are rejected by society, yet people deserve a new start after they have finished their sentence. The prisons have ponds, so we want to provide training to inmates and give them skills and hope for the future."



With the pond they now have season-long access to fish and are no longer prone to abuse. No more fish for sex

The company's vision resonates with the advice Pemphero has for future Entrepreneurs for Rural Access: "You need to work towards a clear target while making the best use of your skills and passion. Be pro-active in advertising; and don't strive much for money from the onset: if you do a good job, and people start



Engaging youth into food and agriculture through videos



Precious Hassan

Precious McDaniels Hassan is one of the five founding members of Ubuntu Go Green Club, based in Mangochi, near the southern end of Lake Malawi. The club engages the district youth office and youth organisations to assist in reaching out to more youth clubs within their district. While Precious is an ICT expert, other members of the club such as Aminah Mgwale have an agricultural background, with a passion for eco-friendly farming. In 2018, the five founding members started off with a focus on taking care of the environment by planting trees.

When one of the members spotted an advert in the local

ning environmental and agricultural activities.

"The first time we used the projector, we contacted Mapira Youth Club from Mapira village within the district. We were overwhelmed as more than 200 youths showed up. We had asked beforehand what they were interested in and as most grew vegetables, we decided to screen all the videos on tomatoes," says Precious.

The team collaborates closely with three youth clubs and has moved around villages in their district showing agricultural videos in the local *Chichewa* language to more than 30 youth

As with any business, price setting for advisory services is something that evolves as one gains experience and a better understanding of the market



newspaper about the Access Agriculture Young Entrepreneur Challenge Fund, the group members discussed, applied and became one of the recipients of a smart projector in 2022. From here onwards, the team started to take a more holistic perspective on community development, combi-

clubs, often to between 100 to 200 people. They also work closely with mothers' groups which comprise both of young mothers and elderly women. From 2022 to the end of 2023, in 16 villages they reached more than 2,500 people, 65% of whom were female and 70% were youth.

Precious has trained ten members of Ubuntu Go Green Club to operate the smart projector. For youth clubs, they organise one monthly screening for free. When asked by other organisations to screen videos, they charge 15,000 Malawian Kwacha (13 Euros) per day.

As with any business, price setting for advisory services is something that evolves as one gains experience and a better understanding of the market. To copy videos on SD cards or USB sticks, the team initially charged 200 Malawian Kwacha (0.17 Euro) per video, but this has since gone up to 500 Kwacha (0.43 Euro). Most youths, however, now have smartphones and prefer to just receive links to the Access Agriculture video platform via their Facebook group, so they can download and watch the videos again with other friends whenever they want.

About twice a month, NGOs working in agribusiness and farmer cooperatives in Mangochi District ask to hire the smart projector, for which the team charges 25,000 Kwacha (22 Euros) per day. There are around 60 NGOs operating in the district who regularly need to make presentations at District Executive Committee meetings, which brings all stakeholders together working in a particular sector in the district, so the potential is huge. Some use the projector to screen videos during training events or to show films.

The club is able to generate between 70 to 120 Euros profit a

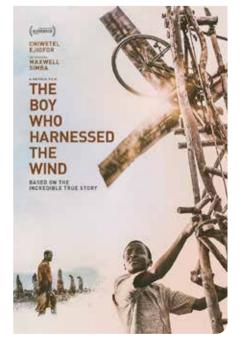
month from the videos, including the projector hire service. The profit is reinvested into other activities, such as creating open days where people can promote their products.

Clients include NGOs that promote education and leader-ship development for girls and young women, such as Go Fund a Girl Child, AGE Africa, and The Catholic Commission for Justice and Peace.

At annual retreats from Mpondasi Secondary School, Namalomba Secondary School.

Precious cleverly combined the Access Agriculture training videos with an inspirational Malawian movie

Lisumbwi Secondary School and St Michael's Girls Secondary School, Precious screened videos to the girls on *Drip irrigation for tomato* and Insect nets in seedbeds. Precious cleverly combined the Access Agriculture training videos with an inspirational Malawian movie "The Boy who harnessed the wind", based on true events in which a local boy, who is a school drop-out, delves into study books to develop his own windmills, and helps bring electricity to his community, and also helps them to overcome drought through setting up an irrigation scheme.



Other clients include NGOs, such as SEEED Malawi (Social Economic Enhancement and Enterprise Development), which promotes local economic development by especially suppordiseases without the use of agrochemicals from watching videos such as <u>Conservation agriculture</u> and <u>Controlling wilt disease in pigeon pea</u>.





cope better with becoming an irras the climate women, who erprises. The suggest people

"We are currently establishing field schools where we are growing indigenous crops in partnership with our sister NGO SEEED Malawi and a host of 10 lead farmers," says Precious. The indigenous crops are more resistant to pests and diseases, and can cope better with drought, which is becoming an increasing challenge as the climate changes.

ting marginalised women, who have small farm enterprises. The women started improving their soil health and managing crop "After a video show, we often suggest people in the audience to visit the Nzotheka Youth Club in Ntagaluka village. They have a

The mere fact that youths are becoming pro-active after watching Access Agriculture training videos and prove that they too can do things, has impressed older community members



vegetable and fruit garden where they display some of the practices shown in the videos," says Precious. At times, during demonstration days, the youth club invites a local extension officer to provide additional advice.

All the youth clubs who watched the video <u>Composting to</u> <u>beat striga</u> now make their own

compost, and some occasionally has impressed older community sell bags of compost to other farmers.

After watching the video Making soya cheese, the Kalonga Youth group bought soya beans from local farmers and processed them into sova milk by way of experiment to see if there was a ready market for this new product. "The challenge is to convince people to drink something they are not familiar with, as people

members. Screening videos on agriculture is a ploy to enhance participation," vouth's savs Precious.

Ubuntu Go Green Club continues to strive to form clubs that accommodate the different age groups to meet and interact with one another and navigate through ideas for working together. Only in this way, food will be secured for the long term.



are used to drinking cow's milk," says Precious.

Across the globe, farmers are getting older. The average age is around 60 years, which is a global challenge to future food security. Young, energetic people need to be better motivated and have better incentives to assume a role in local food systems. "The mere fact that youths are becoming pro-active after watching Access Agriculture training videos and prove that they too can do things,



Bringing the love of teaching to farming



Sam Benedicto

Sam Benedicto Chigamphu grew up on a farm family in Dedza, about 85 kilometres south of Malawi's capital, Lilongwe, so farming was part of his daily life. Eager to help other farmers, Sam took various short courses on agriculture before obtaining a Bachelor's degree in Human Science and Community Services from Lilongwe University of Agriculture & Natural Resources in 2018.

Sam took up several shortterm jobs, including one as a science teacher at a secondary school. He also worked as an intern and served as an Agriculture Gender Roles and Extension Support Services Officer at the District Agriculture Office. With his mixed experiences in education and extension, he wished to reach projector that he won. It contained more than 150 training videos in his local language, *Chichewa*.

Recalling his early experiences as an Entrepreneur for Rural Access (ERA), Sam explains: "My first clients were extension workers who invited me to screen videos for their farmer groups. Initially, in 2021, I charged 4,000 Malawian Kwacha (3.5 Euros) per hour, but since 2023 I started to charge 8,000 Kwacha (7 Euros) per hour." His business model has evolved ever since, with different pricing arrangements depending on the client and type of service requested.

"As farmers got to know about the videos, they began to invite me to come and screen videos. At first, I asked 150 Kwacha per person (0.12 Euro) to attend a show, but many farmers were more interested in obtaining copies of the videos, so I reduced the entrance fee to 100 Kwacha (0.08 Euro) and promised that after the show I would copy the videos for free to the mobile phones of five farmers who volunteer to further share the videos with fellow farmers. With this formula, I have been able to attract much larger audiences, often more than 100 farmers," Sam explains. During a show, Sam screens on average five videos, but it can be as many as 12.

During one of the video sessions,

Through the NGOs I can get longer-term contracts and it is easier to reach more farmers



out to more youth and women to improve food security and livelihoods in his country.

When he became one of the finalists of the Access Agriculture Young Entrepreneur Challenge Fund competition, Sam was eager to make the most of the smart

a farmer told Sam: "Extension workers are not available. There are few and they are busy. The videos will help us to watch on our own without the extension worker."

Upon the request of farmers, Sam has also distributed videos for farmers' mobiles, by copying them on SD cards or through WhatsApp. Sam asks 150 Kwacha per video (0.12 Euro) and since he started has sold more than 2.100 videos.

Having been an intern in the government extension service, Sam has also been invited by various District Agricultural Extension Coordination Committees (DAECC) to train their staff in agroecological practices. Since they are the ones who organise such programmes and Sam wants to keep a good relationship with them as they help him reach out to new clients, such as local NGOs and farmer cooperatives, he does not charge any money to train extension workers.

Sam also decided to promote the hiring of the smart projector through his WhatsApp. Per day, he charges up to 40,000 Kwacha (35 Euros) in case he is expected to operate the projector and facilitate the show. For those clients who just want to use the projector without his presence, daily rates can be as low as 5.000 Kwacha (4 Euros), with further space for negotiations for renting agreements up to a month. Sam trains everyone who hires the projector on how to use it and how to carefully handle the delicate parts. All sign an agreement before borrowing to ensure carefulness in handling the equipment.

Asked about his future priorities, Sam says he wants to keep on engaging with DAECC structures to expand his clients, but he also likes to put more effort in reaching out to NGOs who are not members of these multistakeholder platforms. "Through the NGOs I can get longer-term contracts and it is easier to reach more farmers," Sam says.

After applying the practices shown in the Access Agriculture videos, many farmers doubled their maize, soya bean and groundnut yields, and improved



Extension workers are not available. There are few and they are busy. The videos will help us to watch on our own without the extension worker

their income. The video <u>Harvesting and storing soya bean seed</u> triggered three young farmers from the Traditional Authority Chauma from Dedza district to change the type of seeds and how they handle them for better germination of the soya beans. One of them, Jerald Jackson, harvested 450 kilogrammes, up from 250 kilogrammes the previous year, on a 0.4-hectare piece of land. Jerald is working as a gender champion in his village. He uses the Access



Using locally available ingredients, women soon saw their milk increase from an average of 5 litres to 18 litres per day per cow

Agriculture videos on his phone when working with women and men to encourage their families to adopt the practices for their farms to improve their yields like he did.

When 128 women members from the Chitsanzo Dairy Cooperative in Linthipe Extension Planning Area in Dedza district watched the video *Making balanced feed for dairy cows*, produced in Nepal and translated into the local language Chichewa, they applied what they had learnt to their context. Using locally available ingredients, women soon saw their milk increase from an average of 5 litres to 18 litres per day per cow. Women generally have two to three cows. With the milk being



sold at 120 Kwacha (0.10 Euro) per litre, all women used the extra income to buy food for their families, while some also invested in a motorcycle to make transporting easier.

Inspired by another Access Agriculture video, *Making yoghurt at home*, Tiyamike Chimpeni and two other women from Sukasuka village in Dedza district started producing yoghurt and selling it at the local market. Because milk production is limited in the village, Tiyamike buys her milk just across the border in Mozambique where there is ample milk production. As a single mother with two children the money she earns from selling yoghurt generates some much needed extra income.

In the true spirit of providing a service to the people, Sam always tries to respond to what the farmers want. Often, women also ask for advice about indigenous African leafy vegetables, so Sam obtained some locally produced videos from the Department of Agricultural Extension Services on luni (spider plant), denje (jute mallow) and bonongwe (amaranth leaves). "Using the smart projector, I find it easy to combine videos from different sources," Sam explains.

Analysing soil pH and organic matter

Building on his past experiences, Sam continues to explore how he can develop his work with the smart projector as a sustainable business. Having worked in education, he knows that many schools do not have science laboratories, and yet are expected to provide this as part of their curriculum. Sam downloaded various videos on a Digital Lab from the internet and combines these with Access Agriculture videos, such as Analysing soil pH and organic matter and Seeing the life in the soil. He established contracts with public Community Day Secondary Schools and private secondary schools in Dedza. Salima and Nkhotakota districts in the Central Region of Malawi. He charges 100,000 Kwacha (80 Euros) per

term of three months to provide 40-to-80-minute sessions per week

Having that anecdotal evidence is crucial when you want to negotiate with new clients. It is even useful to share this information with farmers as it adds motivation

From 2021 to 2023, Sam reached an impressive number of more than 46,000 people, of whom 60% were women and 40% were youth.

Sam is confident that his business will continue to expand as he taps into the public and private education and extension systems. Sam has several points of advice he wants to share with newcomer ERAs: "You need to engage with existing structures to build your

business. And each time you need to try to find out what people have done with the learning from the videos: having that anecdotal evidence is crucial when you want to negotiate with new clients. It is even useful to share this information with farmers as it adds motivation." Sam concludes.



A teacher of children and farmers



Sydney Jassi

Sydney Jassi is a young Malawian primary school teacher who graduated from Lilongwe Teachers Training College in 2019. He believes that everyone is a farmer of some sort in Malawi. "I grew up with parents, grandparents and other relatives who are all farmers. Some are even agricultural extension workers," says Sydney. His

passion to promote sustainable agriculture and healthy food was especially fuelled by a desire to make a positive impact on the environment and society.

While visiting the capital's District Council office for some personal business, he saw an advert about the Access Agri-

While Sydney has become used to meeting farmers, what he has not got used to is their reaction, especially when they see videos in their local language for the first time



culture call to become an Entrepreneur for Rural Access (ERA). Sydney applied, was selected and later trained as one of the successful ERAs, equipped with a solar-powered smart projector that contains hundreds of farmerto-farmer learning videos in Malawian languages.

When talking of his first experiences with the videos, Sydney lights up completely, with an infectious enthusiasm in his voice: "I was so excited the first time I went out to show farmers the videos. It was such a beautiful experience engaging the farmers

and witnessing their reactions to the videos."

Once he got the smart projector, Sydney contacted the extension workers in his home village Malingunde in Masumbankhunda Traditional Authority, southwest of Lilongwe and expressed interest to work with them. "Even though it was my home village. I was a newcomer in terms of working with farmers. So my initial clients were cooperatives that were mobilised by extension workers. such as Jossam Kumcheza, who has always supported me and linked me with farmer clubs and cooperatives whenever I ask him to," Sydney says, full of appreciation.

Working with the extension workers was a win-win situation. For the extension workers, the novel approach of video extension allowed farmers to see clearly what they needed to do, rather than through the traditional approach of having the extension workers just explain things to them. For Sydney, it meant he didn't have to do the hard work of mobilising farmers as the extension workers did that, and in addition, he had clients who were already willing to pay.

"The videos that I first showed to these cooperatives were Scouting for fall army worms, Killing fall army worms naturally, and Turning honey into money," says Sydney who usually charges farmer cooperatives 15,000 Malawian Kwacha (12 Euros) per day for his services. The amount may not



be a lot, but Sydney says his goal is really to share knowledge from the videos with the farmers, rather than just make money, believing fertilisers, which most can't afford as the prices have kept on rising. At the end of the shows, most farmers' parting remarks are that Sydney should return with more videos

As a primary school teacher, Sydney decided that he could also use the smart projector to help his pupils see agriculture as a business, especially as part of their agriculture curriculum.



that there are other avenues from which he can charge more for his services.

While Sydney has become used to meeting farmers, what he has not got used to is their reaction, especially when they see videos in their local language for the first time. "Where have you been all this time?" is a question he often gets, coupled with the enthusiasm of farmers when they learn how to farm organically, using locally available resources. Farmers are keen to move away from chemical

He explained his intentions to his employers at Chisomo Private School in Lilongwe, and once he had the approval, began showing videos on cassava and groundnut production, and on <u>Making banana flour</u>.

"The schools and students have implemented various initiatives to apply the knowledge gained. Some of the students and their teachers have started school gardens to practise what they have been learning in the videos, and some have engaged

in community outreach to share their knowledge with local farmers and parents," says Sydney.

Soon after, he got in touch with other primary schools such as Dzenza and Chigoneka which



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Sydney decided that he could also
use the smart projector to help
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are Government primary schools, and also Malingunde Secondary School in his home village. For schools, Sydney usually charges between 25,000-30,000 Kwacha (20-24 Euros) to screen videos to pupils, regardless of whether he is there only for an hour or a few hours.

In addition to engaging schools and engaging farmers directly or through cooperatives, Sydney also works with various organisations to reach farmer groups in different places. Sydney credits the support he has been getting from the Access Agriculture coach as being crucial to build linkages with organisations. "Continued coaching has equipped me with the skills and confidence to effectively communicate and understand the specific needs and preferences of the various organisations that I engage with," he says.

For the GIZ-funded Empowering Youth in Agribusiness project, Sydney organised video shows to train extension workers in organic agriculture, so that they gained the knowledge and confidence to then go out and train farmers in their areas.

To organisations, Sydney charges 25,000-30,000 Kwacha (20-24 Euros) per day. In a bad month, he makes around 50,000 Kwacha (40 Euros), but in a great month he can earn more than 300,000 Kwacha (240 Euros). "How much I make in a particular month depends mainly on how many organisations and schools I can work with, because I generally charge those more than I charge farmer cooperatives. This is because projects have budgets allocated to outreach activities," he says.

From May 2021 to December 2023, Sydney reached 2,600 people, of whom 56% were female and 70% were youth.

Looking forward, Sydney has

ambitious plans for his business

as an ERA. "I would like to colla-

borate with more local partners

and stakeholders and reach out

One of Sydney's biggest joys is seeing the farmers use the information they learn from the videos to improve their farming. One group, comprised mostly of women and youth, was growing tomatoes and other vegetables,

revolving funds to pay for their children's education, healthcare expenses, and even home improvement projects. It is empowering these women to become more financially independent, leading to increased economic stability

leading stability communities, to address the needs of youth and women in particular. I also want to incorporate evaluation mechanisms to measure the impact of the videos on the lives of the farmers we reach," he says.

His parting shot to other ERAs on what they need to keep in mind if they are to succeed is

His parting shot to other ERAs on what they need to keep in mind if they are to succeed is straightforward: "As ERAs, we need to be diligent, and if we do that, we will see our work bear fruits for the farmers we reach and for ourselves too. There are challenges on this path, but when we are diligent and offer a superior service to our clients, be it schools, farmer cooperatives or organisations, then opportunities will continue to open up for us," he says.

Continued coaching has equipped me with the skills and confidence to effectively communicate and understand the specific needs and preferences of the various organisations that I engage with

but they were struggling with nematodes for some time. When he showed them the video <u>Managing vegetable nematodes</u>, they were able to find solutions. "This group started crop rotation and intercropping and using natural predators to control nematode populations. With these strategies, farmers have been able to reduce nematode infestations and improve crop yields sustainably, leading to improved sales of their vegetables too," says Sydney.

Having watched the video on Village savings and loan associations (VSLA), a group of women in Masumbankhunda formed their own VSLA group, called Chombwe Women Group. The women have been using their savings to uplift their livelihoods and support their families. "Some have started small businesses, such as tailoring, while others have used the

and improved quality of life for themselves and their families," says Sydney.





When one door closes, another opens



Alpha Mahamoud Traoré

"I come from a teachers' family and have always been passionate about training others. In rural Mali, everyone is into farming, so when studying agricultural economics at the University of Ségou, I learnt all about good agricultural practices, but most farmers were reluctant to change after I trained them," says Alpha Mahamoud Traoré, one of the young Entrepreneurs for Rural Access (ERA) in Mali.

Being one of those selected as part of the Access Agriculture Young Entrepreneur Challenge Fund, Alpha received a solar-powered smart projector and was trained in mid-2021 to become a digitally-equipped agricultural But establishing a business in the Office du Niger, Africa's largest irrigated rice scheme covering more than 100,000 hectares, has not been easy, however much farmers like the videos.

At first, Alpha thought that the excessive and widespread use of agrochemicals would limit farmers' interest to learn about agroecological practices shown in the videos. "On average, rice producers in the Office du Niger use 200 kilogrammes of urea fertiliser and 100 kilogrammes of diammonium phosphate (DAP) per hectare, plus large amounts of herbicides. Insecticides are mainly used by women who grow vegetables," says Alpha.

Prior to the screening sessions, Alpha had intensively interacted over the phone with each group to find out what their constraints were in farming and what they were interested to learn

advisory service provider. "Access Agriculture has strengthened my knowledge, skills and competencies relating to agroecology, which is building on local and scientific knowledge. I learnt so much from its video library," he says.

Alpha's first contract to screen videos was in 2021 with a GIZ-funded project in Ségou, called PARIZON, which focused on gender equality in the rice-producing Office du Niger.

Alpha was asked to train 32 farmer organisations, cooperatives and groups active in food processing and natural resource management, spread over 19 villages in the zone of M'Bewani. This first contract was for 1.5 million francs CFA (2,300 Euros). "I was only given 45 days. It was hectic, but very rewarding as the feedback from the women was overwhelmingly positive. Apart from two videos which were only

in French, we screened videos on rice, tomatoes and onions in the local language Bambara. It made it very easy for the people to understand," says Alpha.

Prior to the screening sessions, Alpha had intensively interacted over the phone with each group to find out what their constraints were in farming and what they were interested to learn. He then tailored each training session by searching for the most relevant videos from the Access Agriculture video library.

While Alpha had also gone through great efforts to organise the video screenings, working through the leadership structures of the farmer organisations and groups, the initial attendance was on the low side. "Farmers called me and asked me if I would pay them a per diem if they would attend a video show. Of course, I could not pay them, but I told them I would screen training videos for free. Many members of the groups did not show up for the first screenings, but when we organised a second show, farmers called me to ask if I would still screen videos for free. Attendance was much higher as the information had spread by word of mouth. At the end of each show, they then asked me to continue showing more videos about other practices. Still, I was puzzled why farmers asked for per diems," Alpha recalls.

The women from the Niokondemé cooperative appreciated the videos Tomato concentrate and juice and How to make a cooling chamber for tomatoes, a cold storage they could easily make themselves and that cools





without electricity, based on evaporation of wet sand captured between two walls of mud bricks. A cooling chamber helps to generate additional revenue as at harvest time, the market is



flush with tomatoes and prices hit rock bottom. With the cooling chamber, women can store fresh tomatoes for a few more months and sell them at a higher price after the glut. Women were also

With the cooling chamber, women can store fresh tomatoes for a few more months and sell them at a higher price after the glut

Making a cooling chamber for tomatoes

keen to learn how to manage tomato diseases without the use of pesticides.

The PARIZON project was extremely pleased with the outcome and gave Alpha a second contract, equally for 1.5 million francs CFA (2,300 Euros), this time to train 30 farmer organisations in the zone of Molodo.

"Before screening a video, we talk about the topic. Then I assess what women have learnt from the video and whether they are inclined to practice some of the things they have seen. Sometimes, women call me afterwards to sav that they have tried certain things and that they are so pleased with the results. One day, a woman from the Benkadi cooperative in Massala village, told me how she increased her onion production from three to four bags per bed to six to seven bags per bed without applying any agrochemicals."

Given the good experiences, Alpha approached officials of the Office du Niger and voluntarily trained their extension interns and screened videos for two months, hoping that his goodwill would yield him a long-term contract as service provider. The burning of rice stubble after harvest causes great environmental damage, so Alpha screened many videos, including Compost from rice straw, which featured farmers from Egypt.

"It was during a training session organised by a national institution that I discovered that it was standard practice for farmers to receive a per diem of up to 3,000 francs CFA (4.6 Euros) for each training they attended. Making farmers pay for a video-mediated learning experience as ERAs in other countries do, is not something I want to pursue. Rather I want to find organisations willing to pay for my advisory services," Alpha concluded.

Without being discouraged, Alpha kept on promoting his services to all NGOs and development organisations working in the Ségou region through social media, flyers and personal visits. "From September 2021, I had fully registered my company 'Alpha-ERA Consulting' and obtained a fiscal identification number. This helped me to approach larger organisations. I applied for a grant from the United Nations Development Programme (UNDP) and got 2.500 US dollars to use the smart projector to help youth entrepreneurs to grow their businesses," Alpha says.

From 2021 to 2023, Alpha reached 3,162 people of whom 66% were women and more than 70% were youth.

Alpha also tried to partner with a private company that sells organic fertilisers and bio-stimulants, trying to convince them that the video screenings would boost their sales. In vain. "I now prefer to give farmers the knowledge of how they can make their own biological fertiliser and growth promoters with ingredients they have readily available, so they do not need to spend any money."

With the current political crisis in Mali, Alpha has realised that it is hard to make the most of his new advisory business. In 2023, Alpha explored opportunities in other parts of the country and was hired by DoniLab to coach young green entrepreneurs and use the smart projector to show them the potential in the agricultural and food

sectors. The activities are part of the Green Employment and Entrepreneurship project, managed by SNV Netherlands Development Organisation.



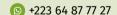
While diversifying his services, Alpha has become a real ambassador promoting agroecology and his digital advisory service. "The demand for new knowledge is there, as people in rural areas have no access to information and lack ideas coming from elsewhere. But you need to find the organisations willing to pay for your quality advisory service," he concludes.

She increased her onion production from three to four bags per bed to six to seven bags per bed without applying any agrochemicals

To have a regular source of revenues, Alpha began to work with United Bank for Africa as the sole seller and recharger of prepaid bank cards for people who want to buy things online. Real entrepreneurship shows in the drive, creativity and flexibility to be self-employed.



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Insights from a livestock farming consultant & trainer



Mamadou Diarra

Already while in secondary school, Mamadou Diarra at times joined his elder brother, a veterinarian, to vaccinate poultry and other livestock in rural areas. His father, an ecologist by training, managed one of the local research stations of IER, the Institute of Rural Economy, in Mali. Inspired by his brother and father, in 2008, Mamadou obtained his Master's degree in animal production.

wered smart projector, trained and coached by Access Agriculture, Mamadou became one of the Entrepreneurs for Rural Access (ERA) in Mali, part of an Africa-wide network. When he started screening farmer training videos from Access Agriculture, translated into Bambara, the rural women were so appreciative, instilling in Mamadou the confidence that what he was offering was something great.

After having screened videos to farmers for free for a few times, Mamadou decided to approach NGOs and cooperatives

For more than two years he worked as a development community agent with the NGO ICD (Initiative Conseil Development), after which he decided to become an independent consultant, which he continued doing for nearly a decade, training shepherds in breeding techniques among other things. "When one day in early 2020 I was alerted through a WhatsApp group, that Access Agriculture had launched a call for a competition to become digital extension service provider, I realised this was a golden opportunity," says Mamadou.

Equipped with a solar-po-

"The smart projector with the entire Access Agriculture video library allowed me to provide a unique quality service that no other advisory service provider could offer. The videos are really practical and in the local language, so after a training event I can leave the videos with the farmers for them to continue learning. This is something one cannot do with text-based training materials, as most people in the village don't read French."

After having screened videos to farmers for free for a few times, Mamadou decided to approach NGOs and cooperatives. His first



paying client was a local consultancy company for which he had previously done some work. They had a project supporting women cooperatives in Simbi and Sandaré, in Kayes region, about 450 kilometres northeast of the capital Bamako. For each training, which lasted two days, he received 400,000 francs CFA (600 Euros). Using the smart projector, Mamadou screened the video *Preparing low-cost concentrate feed* and combined it with practical hands-on sessions.

projector, so by the end of 2020, together with Fafa Koné and Mamadou Mariko, we decided to start our enterprise Expert Élevage Consulting," says Mamadou. Their

Despite the diversity of services and farm inputs on offer, training makes up 80 to 90% of the company's revenue

"The demand for training got a real boost thanks to the smart



company has taken a holistic approach: it provides training on poultry, goat, dairy and fish farming, as well as food processing, such as preparing dried meat. Besides, the company sells seed of fodder crops, such as the legume mucuna, and Brachiaria and Panicum grasses. It also sells equipment, such as drinkers and feeders, and live animals ranging

from day-old chicks and fingerlings to reproductive poultry and ducks. Despite the diversity of services and farm inputs on offer, training makes up 80 to 90% of the company's revenue, estimates Mamadou.

In two years, Mamadou and his team screened videos for roughly 1,200 people of whom 70-80% were



Knowing that space is limited in cities, Mamadou's company developed an innovative, dismountable chicken shed

youth. Given the political instability in Mali, this is no mean feat. Most of the audience were young men, about 25% were women. Often at the end of the training, participants receive a certificate.

"Sometimes we need to provide two training sessions in different parts of the country at the same time; we then hire a projector from one of the other ERAs in the country. They loan it to us for a friendly price of 5,000 francs CFA (7.6 Euros), while for organisations they often charge 15-20,000 francs CFA (23-30 Euros)," says Mamadou.

After screening a wide range of videos to groups of farmers, some of them approach Mamadou or one of his colleagues to request a follow-up training and to buy whatever is needed to start their own enterprise. For such individual, customer-tailored sessions that take two to three days, the company charges anything between 50,000 and 100,000 francs CFA (76-152 Euros). Getting to know the price that one can charge for a particular service comes with experience.

In recent years, Bamako, located on the Niger River, has had an annual population growth of close to 4% making it one of the world's fastest growing cities. Feeding the more than four million people every day comes with challenges and opportunities. Mamadou and his team accompanied final year student, Ousmane Koné, to set up a small, urban poultry enterprise. Knowing that space is limited in cities, Mamadou's company developed an innovative, dismountable chicken shed. Ousmane has now installed this shed on the roof of his parent's home, and rears 100 to 150 broiler chickens. With each batch, that takes 35-40 days he makes a net profit of 80,000-100,000 francs CFA (122-152 Euros). He sells all chickens to his mother who runs a popular restaurant.

Since Mamadou and his team

received the smart projector, they occasionally also provide training in other aspects of food production for which people show an interest. After having watched the videos Making mango crisps and Preparing cashew apple juice, Assétou Diarra has established a thriving business in the capital Bamako, producing and selling fruit juices as well as pre-cooked fonio, a gluten-free, tiny grain from a traditional millet that is widely grown and consumed in the Sahel region of West Africa. She buys the fonio, oranges, mangoes and other fruits from farmers in the area and makes a net monthly profit of about 100,000 francs CFA (152 Euros).

advice to new ERAs. Mamadou stresses: "You need to want as many farmers as possible



have the right entrepreneurial to come to your shows and to get

to know your service. Once you build trust by providing a quality service, you can start to develop it as a paying service."

You need to have the right entrepreneurial spirit. But before reaching out to potential clients, you need to establish proof that what you have to offer is valued by farmers

spirit. But before reaching out to potential clients, you need to establish proof that what you have to offer is valued by farmers. You need to screen videos to farmers for free at first, and see how they respond and what they do with the learning. Don't ask for money when you just start, as you

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— Insights from a livestock farming consultant & trainer

Building an inclusive market for moringa

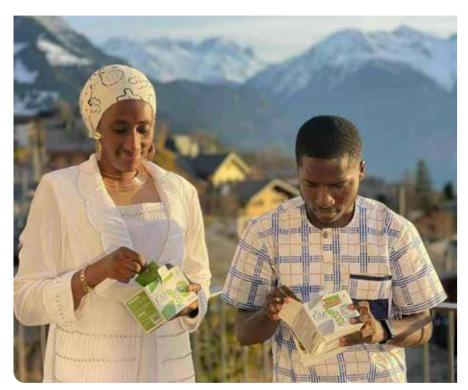


Rokiatou Traoré

Rokiatou Traoré is a young, self-made Malian entrepreneur. After studying in Senegal and then obtaining a Master of Business Administration in Turkey in 2018, Rokiatou got married and the couple decided to start a business that would generate rural employment across West Africa.

"No one in my family had any connection with agriculture, but

Three to five months after planting the moringa seedlings, women started to harvest leaves, which we processed into tea. Leaves can be picked every two months, so we all get a regular income from it



after doing intensive research on the internet, we found that the moringa tree would grow well in our semi-arid environment and that it could have a great impact on rural youth and women as the leaves and flowers can be turned into tea, powder, oil and many other organic products," says Rokiatou. The moringa plant is traditionally used as both food and a source of alternative medicine in India and Africa.

The couple established their company Herou Alliance in 2019 and at first operated from Switzerland, but after a decade abroad decided to return home. "We mobilised 80 youths and

women farmers in Baguineda, some 30 kilometres from Bamako, in the Koulikoro region, trained them and by August 2020 had established a nursery with 5,000 moringa seedlings." The company was ready to kick off, but a few months later Rokiatou's husband unexpectedly passed away. "It was a shock; I couldn't function anymore. Without supervision and payment, the people abandoned the nursery and all the seedlings died." says Rokiatou.

Half a year later, she gave birth to their second child. Despite her grief. Rokiatou decided that she had to move on and start all over again. After searching on the internet, she secured some grants from the Tony Elumelu Foundation and the West African Climate Leadership Program for Women. "I re-established the nursery, this time with 600 seedlings, and secured contracts with two supermarkets in Bamako. Three to five months after planting the moringa seedlings, women started to harvest leaves, which we processed into tea. Leaves can be picked every two months, so we all get a regular income from it," says Rokiatou.

Continuously thinking about ways to support her business, she also applied to Access Agriculture's competition and was selected to become a digital extension service provider, equipped with a smart projector.

"I was very excited. The first time we screened videos in 2022 was to 80 women in the village



where we had our nursery. But when we tried to go to other villages, it was much harder. We could barely get 40 women together. For years, NGOs have given money to rural people to attend their training events, so people were reluctant to come

Establishing a proper strategy to generate revenues from digital advisory services takes time and dedication, but also focus

without being paid," recalls Rokiatou. "We showed them various videos on food processing that would give them ideas to run a small business, but it was especially the video Enriching porridge that inspired women. They started to make enriched porridge at home to give to their babies, and pregnant women also started to drink it."

Establishing a proper strategy to generate revenues from digital advisory services takes time and dedication, but also focus. And Rokiatou has her priorities right: "In 2023, we were so busy expanding our moringa business that we could hardly focus on video training," she admits. "We planted 150,000 moringa seedlings but in July, nearly all were destroyed

by armyworms. In the meantime, I had contracts with 15 supermarkets in Bamako and had started exporting moringa tea to Germany and France." Continuously adjusting and finding solutions, Rokiatou began sourcing moringa from 1,200 farmers who already had well-established moringa trees but were not doing any value-addition. They were all happy to sell leaves to her.

Since early 2024, Rokiatou started to organise one-day training programmes for rural people from around Bamako, advertising it through social media. "We charge 3,500 francs CFA (5.3 Euro) per person for the day, and people really find it cheap. Some people paid in advance using mobile money. One mother even paid for her three daughters, as she wanted to inspire them to become entrepreneurs," says Rokiatou.

taboo making people reluctant to ask family members to collect their urine. So, I tell them they could start by themselves, and gradually convince others," says Rokiatou.

"After a training event, each participant gets a certificate. Many people also want to have their own copies of the videos, so we share them through Google Drive for those who have an email address, or else via WhatsApp. We charge 500 francs CFA (0.76 Euro) per video, which people are willing to pay," says Rokiatou.

The participants were attracted to one video in particular, even though it had to be shown in French, as it had not yet been translated in the local language. Since the 1990s, water hyacinth, an invasive weed of South American origin, has infested the Niger river and adjacent water bodies.



Rokiatou started to organise one-day training programmes for rural people from around Bamako, advertising it through social media

She screened various videos, such as <u>Using sack mounds to</u> grow vegetables, <u>Human urine as</u> fertilizer, and <u>Organic biofertilizer in liquid and solid form</u>. All the videos are available in the local language <u>Bambara</u>, making it easy for participants to follow. "The video on human urine raised a lot of discussions, as there is a social

Dense masses of weeds interfere with water use, fishing and transport. When the participants saw that the Access Agriculture video library on the smart projector had a video on *Floating vegetable gardens*, the participants were thrilled to watch how farmers in Bangladesh make good use of this aguatic weed.



"As we create WhatsApp groups with the trainees, some share photos to show what they have done with the learning," says Rokiatou. None of the trainees was able to get big bags to grow vegetables, but the video inspired them that they could grow vegetables even in small spaces around their house. Some added compost and soil in old car tyres, others used empty jars cut into half, to grow vegetables and herbs. What has pleased Rokiatou in particular,

is that several of the people who attended a training event became interested to also grow moringa. grow moringa for the company also need new ideas and activities, especially for the dry season when there are few activities. The Access Agriculture training videos help women to diversify their food, manage pests without chemicals, avoid post-harvest food losses and generate additional revenue," says Rokiatou.

By screening videos to the people in her network, she provides an additional service and strengthens her relationships. Or to say it in her own words: "A network needs to be nourished."

As we create WhatsApp groups with the trainees, some share photos to show what they have done with the learning

Dreaming big while staying focused and having shown that she can deal with multiple crises, Rokiatou has clear plans for making optimal use of the smart projector. "Women and youth who

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A major career shift, from IT to agroecology



Jihad El Malih

"My whole life perspective was shaken; it was like a slap in the face!" recalls Jihad when he quit his corporate life to become a farmer. And not just any farmer, but one who is in harmony with nature, working with local ecosystems rather than against them. "I took a long biking trip across the Atlas Mountains of Morocco and visited many remote villages

UNICEF and DELL to strengthen the digital competencies of rural youth, he travelled across the country, living in a caravan. While delivering humanitarian aid to schools in remote areas, he met his future wife, Abir El Alaoui, and some of her friends who were all questioning their role as citizens and the path towards food sovereignty.

We realised that we were pioneers and that, if we succeeded, we could show other youngsters how to live off the land and farm using agroecological principles, even if you do not have a background in agriculture



where people live in interdependence and autonomy and have simple lives yet have wellbeing. I realised that I knew so much about IT and the virtual cloud world, but had no idea how to serve basic human needs through food production. I just knew that I had to learn more and it pushed me to learn!"

Jihad El Malih, like many young people growing up in the city, had no connections to rural life and agriculture. He was a skilled computer technician and had many jobs. As a trainer with

Jihad always loved to travel and enjoyed being in nature to disconnect and relax, away from screens and city life. "I started to realise that we are nature. We are all pieces of this puzzle and we play an important role in the ecosystem. That is why I decided to quit my corporate job to become a farmer and return to earth's oldest profession – and the core of society – farming," says Jihad.

Abir also quit her secure job, selling insurance, and the couple set off to live on a plot that Jihad's father had recently purchased as a

weekend destination. In vain, they tried to convince their parents that they were planning to work full-time in the village as farmers. There were no other youths or role models Jihad and Abir could liaise with.

"We realised that we were pioneers and that, if we succeeded, we could show other youngsters how to live off the land and farm using agroecological principles, even if you do not have a background in agriculture. So many values have been lost in society. They teach people to only be consumers," says Abir.

In 2017, the couple moved to the small village of Khemis Sidi Yahya (Ait Ouahi), a one-hour drive from Rabat. They called their project "Facyla", an Arabic word for a small sprout, which was how they felt with their small plot surrounded by large-scale monoculture farms of cereals. The couple planted trees, which caught the attention of the villagers. During Covid,



people could not easily travel to markets and realised they had better access to food when farms were more diversified.

Together, the young couple researched and reached out nationally and internationally to get support. They linked with Terre & Humanisme, Kokopelli and independent trainers like Gilles Domenech, all promoting living soils and indigenous seeds adapted to local climatic conditions.

"We were very receptive to these ideas. We were like a blank page and didn't have to unlearn generations of chemical-based farming before us. We wanted to learn and practice in order to share with other farmers," says Jihad. The couple set up a plant



"We started getting requests for training and consulting. People trusted us based on our living practice of agroecology. I had good experience in delivering training in the IT sector and we were both passionate to share our learning with consumers and organisations seeking to preserve local seeds and build living soil," says Jihad.

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nursery and vegetable garden, and invited trainers to help them. Soon, they got introduced to RIAM (Réseau des initiatives agroécologiques au Maroc), a network of local organisations working on agroecology.

When Access Agriculture launched its online competition to become a young, private extension service provider equipped with a smart projector, the call for applications bombarded Jihad's social media. Jihad applied, knowing this



tool could help him serve remote communities: "We often received requests for farmer workshops in places that have no electricity or proper hosting spaces, and we needed good visuals to engage farmers to farm in a different way, rather than just share theoretical ideas." In 2021, Jihad had collaborated with RIAM on a video documentary on living soils in Morocco. He realised that with the projector he could also show the documentary to more people and moderate a debate.

After receiving the projector, the couple immediately integrated the projector in their trai-



ning contracts. They screened the video <u>Using sack mounds to grow vegetables</u> to urban youth who have no access to land but could be motivated to grow vegetables for home consumption. They also screened <u>Compost from rice straw</u> and provided seeds and seedlings from their nursery to help the youth get started. Once the participants tasted their first harvest from the home sacks, the couple received a follow-up request.

After the deadly earthquake in September 2023, Jihad and Abir

disease. "With the war in Ukraine many farmers cannot afford feed anymore, and the price for industrial chickens is steadily increasing. Local poultry production can be profitable if done correctly. It is a crucial way to improve farmers' livelihoods, especially for women," says Abir.

While the couple screens all videos in <u>Arabic</u>, they are seeking ways to create and use videos for Moroccan farmers in local dialects, including Amazigh, one of the indigenous Berber languages.

The couple is also building a training and demonstration centre where locals and foreigners can learn about agroecology

travelled south to raise awareness on food security and the need to increase youth farming. With the earthquake, new springs had appeared, bringing water stored in geological layers to the surface. To encourage integrated farming, the couple screened the videos Staking tomato plants, Drying and storing chillies, Growing azolla for feed and Crop rotation with legumes.

Working in rural areas close to their new home, Jihad and Abir have focused on improving poultry production by screening various videos, such as Increasing production of local chickens and Management of Newcastle

Taking advantage of other new farmers or farmers paying for his consulting services or buying plants, Jihad asks their help to invite neighbouring farmers to a screening. Zhor, the founder of Mama Ghaia farm, has engaged Jihad to support her journey to develop a fully diversified demonstration farm and retreat centre. She happily opens her doors





whenever Jihad needs a venue to screen videos.

"In each region, I make sure the farm owners invite people, and I also invite people through my own contacts. This creates a diversified crowd, an opportunity to network and yields new business opportunities for myself and participants," says Jihad. This way the cost of the screening is covered by funders, organisations and established farms that are transitioning towards agroecology.

The couple is always busy travelling and taking care of their farm. Even though Facyla farm has attractive social media pages, the couple has little time to promote their products and services on them. Most of their contracts come from word-of-mouth recommendations. Through networks like RIAM they can partner with larger scale projects. The couple is also building a training and demonstration centre where locals and foreigners can learn about

agroecology, ranging from production to direct sales of food baskets to clients, as part of a Participatory Guarantee System.

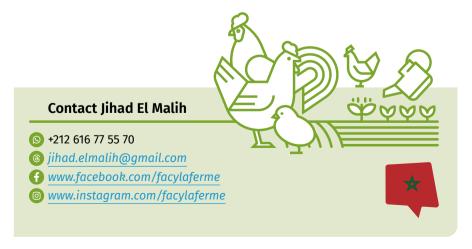
Jihad and Abir are passionate about their new found path that they must forge themselves. "It is not a matter of copy-paste. Just like the videos, they open the door to a rich discussion to ensure the knowledge is understood and ideas are adapted to local conditions. For each 10-minute video we spend at least 30 minutes debating it. This is the most important, because Access Agriculture videos

are all filmed with smallholder farmers, yet they show innovative solutions," says Jihad.

Jihad and Abir are amazing role models. Their path is not easy, generating new knowledge, local practices and food products, while at the same time training others. In their first 6 months, Jihad organised 7 sessions, reaching 122 farmers of whom just under 50% were women and 30% were young pupils.

They see the delivery of free awareness raising sessions as a worthwhile investment: one student workshop led to a contract to train 12 public schools to set up indigenous food gardens.

Their advice to others: "Try to enjoy the slower pace of rural life as it creates more time to learn and apply agroecology. And use video sessions as way to create networks, whether they are new or established farmers, consumers, students, teachers, project managers and even family members. Rich discussions can emerge and open new doors."



Videos for landless women and youth in Rwanda



Jackson Karara

"My dad cultivated vegetables which he sold to a boarding school. On his quarter hectare farm, he also raised goats and chickens, which reproduced fast. Despite the challenges, he was able to feed his family and provide fees for my studies, so I learnt that vou do not need a lot of space to get a good income," says Sylvestre Jackson Karara, a rising young green entrepreneur from Rwanda.

In 2018, Jackson obtained a Bachelor of Science degree in Pharmacy from the University of Rwanda. He worked for some time as an inspection specialist at the Rwanda Food and Drugs Authority, focusing on compliance for all imports and exports, while studying for a Master's degree in Drug Regulatory Affairs.

With a drive to improve the

lives of farmers in his country. The first time we went out with the smart projector in 2021, the community could not believe that videos were in Kinyarwanda, their local language. It was amazing.

I could see from their eyes and body language that the farmers were extremely pleased

Jackson also co-founded Uruhimbi Kageyo Cooperative (UKC) in 2018 and became a pioneer in training farmers on growing hydroponic fodder for their animals: a soilless technology that provides feed in one week. "Given the pressure on land in Rwanda, we believed this technology needed to be scaled up across the country, but market penetration was not easy," recalls lackson.

When he read in the Youth Engagement in Agriculture Network (YEAN) newsletter about the competition from Access Agriculture to become young entrepreneurs equipped with a smart digital projector with farmer-tofarmer videos, he and his teammates in the cooperative saw this as a unique opportunity, decided to apply and were ultimately selected.

"The first time we went out with the smart projector in 2021, the community could not believe that videos were in Kinyarwanda, their local language. It was amazing. I could see from their eves and body language that the farmers were extremely pleased," recalls Jackson.

Being proactive, Jackson and his team obtained a grant from the Mastercard Foundation of 20,000 US dollars to install and equip two screenhouses for hydroponic fodder production in Gicumbi district, Northern Province. Each

screenhouse is 20 meters long, 10 meters wide and 3 meters high, totalling 600 square meters of productive space. The grant also allowed them to conduct a 3-day training for 21 youths on "the role of youth in integrating smart technologies in solving livestock feed scarcity in Rwanda". They screened Access Agriculture videos on hydroponic fodder, sustainable land management, poultry, sheep and goats, as well as on ways to prevent aflatoxins in maize

They shared their amazing experience on social media and lackson was soon approached by many clients. He signed a contract with the College of Agriculture, Animal Sciences and Veterinary Medicine of the University of Rwanda to organise field tours for groups of 35 students for which he received 150.000 Rwandan francs (about 115 Euros) per study tour. Contracts with other educational institutes, such as the Rwanda Institute for Conservation Agriculture followed. "Students are tired of text-based manuals, they want to see videos," says Jackson.

When the dairy cooperatives

started approaching them, Jackson and his colleagues decided to screen videos at milk collection centres to about 30 or 40 farmers at a time. "It is easy because farmers are already gathered, and we can screen videos on the wall of the centres. We showed various videos, such as Keeping milk clean and fresh, Keeping milk free from antibiotics and Herbal medicines against mastitis and combined the video on Hydroponic fodder that was produced in India with our video," says Jackson. "For each show, we charge the cooperative 80,000 Rwandan francs (60 Euros), covering our own transport cost." At the end of each show, farmers can get the compressed videos on their mobile phones via Bluetooth or WhatsApp for 500 Rwandan franc (0.4 Euro) per video. Some farmers also wanted the videos on a USB stick, for which they pay 4.000 Rwandan francs (3 Euros).

The dairy sector in Rwanda is developing at high speed and because land is limited the government has made zero-grazing a policy. Farmers therefore need crop residues and green fodder. In 2021, UKC produced 6 tonnes of hydroponic fodder per week.

By mid-2023 this had gone up to 34 tonnes, being produced in two screenhouses, supplying farmers in seven districts. By the end of 2023, the cooperative had four screenhouses and were producing 55 tonnes of hydroponic fodder per week. Fodder is sold at 130 Rwandan francs per kilogramme (0.10 Euro) and delivered to either the farmers' homesteads or to the milk collection centers, where farmers can conveniently collect their animal feed after delivering their milk there. On average, livestock farmers order 60 kg of fodder each day. Used as a protein supplement and mixed with other feed, this is enough for 4 dairy cows or 20 goats. Chickens need far less feed. With 60 kg of fodder as a supplement farmers can feed 90 chickens for 10 days.

To produce the fodder, the cooperative needs grains. The Rwandan government gives organised youth groups access to land, so UKC contracts them to grow maize, wheat, sorghum and to a lesser extent barley. UKC trains the young people for free and provides them with relevant copies of the farmer-to-farmer training videos afterwards. "For





our business, quality is crucial, and this starts in the field. So, we are very pleased with the Access Agriculture video library, which contains videos on how to manage aflatoxins in maize, as we do not want any human health risk," says Jackson.



UKC buys the harvest from the youth groups, which is three times a year, and stores them in their warehouse, so they have a continuous stock. To produce 120 tonnes of fodder per week, UKC needs about 20 tonnes of grains. Fodder for poultry is harvested areas, livestock is mainly in the hands of men, but in rural areas, women dominate the sector.

After being trained by UKC with the smart projector, Agnes Munyansanga in Ngondore village in Northern Province is feeding her 8 cows and 42 chickens using hydroponic fodder produced from her hydroponic set-up, measuring 4 by 5 metres. As she no longer needs to buy poultry feed, she saves 80,000 Rwandan francs (78 Euros) from purchasing costly conventional feed and has a good income from selling eggs. Her



bananas. Before, Agnes did not have enough green fodder for her cows, so she was cutting banana plants for animal feeding, but now plants can be left to produce nice bunches of bananas, which helps her feed the family and sell at the market.

The Access Agriculture videos on goat fattening and hydroponic fodder triggered Faith Karemera from Nyamirambo village in Eastern Province to invest in goat farming. She began to feed hydroponic fodder to fatten the goats and sold them after 4 months. She started with 12 goats and now in just 15 months she already has 86 goats. Faith buys young goats, deworms and fattens them for marketing and reproduction. Faith now makes good use of the family land. She constructed a herdsman house and now employs two people from the good financial returns from her goat venture. With government subsidies, Faith also built a rainwater reservoir to store water for her animals. Her improved goat farming has inspired many neighbours to make better use of their land for goat and dairy farming.

For our business, quality is crucial, and this starts in the field. So, we are very pleased with the Access Agriculture video library

after 4 days; for goats, sheep, rabbits and pigs after 6 days; and after 7 days for dairy cattle, so there is a fast turnaround.

UKC supplies 60% of its hydroponic fodder to the dairy sector, 20% is destined for poultry, 15% for pigs, while the remaining 5% is for sheep, goats and rabbits. In urban

milk production increased by 220 litres per month, from this Agnes earns an extra 99,000 Rwandan francs (86 Euros). Agnes puts the dung from her animals in a biogas digester to make cooking gas, so she no longer needs charcoal for cooking. The residue from the biogas is used on the farm to fertilise her maize and

"We cannot produce hydroponic fodder for the entire country, but the more farmers produce



their hydroponic fodder, the more we will be asked to give technical advice and training," says lackson with a clear vision on how to expand the business. "We also never imagined that selling farmer training videos would generate revenue, but farmers are eager to get their own copies." Jackson equally sees enormous potential in expanding training with academics and technical colleges using the smart projector, as they need exposure to practical farming, not just theory.

promote their service, lackson has done live shows on national TV in Rwanda, on TV10. Radio Imanzi which is a private radio station, and on the Kinyarwanda radio programme and website of BBC and Voice of America. Equally important have been his interactions with Rwanda Development Organisation (RDO), a civil society network that re-groups many extension service providers across the country. "Reaching out to mass media and to network organisations like RDO and the Rwanda Youth in Agriculture Forum has been crucial to arow our business beyond the local level," says Jackson.

While Jackson and his team initially worked as non-paid volunteers who used the smart projector mainly during weekends, in early 2023 Jackson resigned from his government job and became a full-time entrepreneur focusing on training and hydroponic fodder production. With the smart projector they trained 7,300 people in three years. About 70% of the trainees were women and 60% were vouth. Their business keeps on expanding, setting up additional hydroponic fodder partnership with others. Leverage existing opportunities and use these for the social and economic benefits of the underprivileged.

We cannot produce hydroponic fodder for the entire country, but the more farmers produce their hydroponic fodder, the more we will be asked to give technical advice and training

production units in different parts of the country.

By the end of 2023, UKC employed 30 young people fulltime, it joined the Slow Food Movement and secured new contracts, including one with the United Nations Development Programme (UNDP), to use the smart projector to conduct inclusive and comprehensive training on sustainable agriculture.

Jackson has the following advice to newcomer Entrepreneurs for Rural Access: "To be successful, you need to work in Optimise what exists and add value to what you and others do."

lackson and his team are testimony that poverty is not just a lack of means, but also a lack of ideas. By showing quality farmer training videos in the local language, one can inspire women and youth to establish thriving businesses in the food and agriculture sector.



The ups and downs of a new business venture



Mamadou Sow

Having grown up in a farming family, as a child Mamadou Sow used to help his mother water the vegetables in her garden, and spent time with his dad in the nearby half hectare orchard of oranges and mandarins. Mamadou loves being outdoors in nature and obtained a Master's degree in Agroforestry from Ziguinchor University, Casamance, Senegal, in 2019. He became a passionate Entrepreneur for Rural Access (ERA) in 2021.

Just like other ERAs established by Access Agriculture across Africa and India, Mamadou received a Digisoft smart projector containing the entire Access Agriculture video library off-line. He was set to embark on an exciting journey. their fields, sometimes in their homes. As I gained confidence, I started to reach out to farmer groups," says Mamadou.

In Djibélor, one of the villages near to Ziguinchor, Mamadou showed the videos <u>Turning fish</u> waste into fertilizer and <u>Good microbes for plants and soil</u> to a group of about 40 farmers. With soaring prices for chemical fertilisers, the farmers were keen to learn how to make organic fertilisers themselves from readily available resources. Some also asked Mamadou if he could produce it for them.

Urban farming is gaining in importance across the city of Ziguinchor. When Mamadou

With soaring prices for chemical fertilisers, the farmers were keen to learn how to make organic fertilisers themselves from readily available resources



"The first people to whom I screened videos were my parents, brothers and sisters on the family farm. Then I started visiting neighbouring farmers and screened videos in the <u>Wolof</u> language, sometimes in the open air, near

screened the video <u>Managing</u> aphids in beans and vegetables, young urban farmers in Kandialang neighbourhood were pleased with what they learnt, as they often saw their young seedlings wither without knowing how to

solve it without spraying insecticides.



neighbourhoods, other the video Making a good okra seeding, made farmers realise that they were putting far too

organic waste using a tricycle. The compost we produced from the waste varied from month to month and was up to 1.5 tons in some months," says Mamadou. They sold it to local farmers.

The team could not keep up with the demand for organic fertiliser for tomatoes and other crops grown in the urban and periurban plots, but processing and transporting the bulky materials was more daunting than the team had initially anticipated.

Besides kickstarting his new business. Mamadou also started his PhD at Ziguinchor University in late 2021, which added to his workload. When his team mates. who were all expecting to earn some money quickly, abandoned the company, Mamadou was left by himself to manage everything. Collecting urban, organic waste, turning it into compost and then selling it in bags, is not an easy task for a team, and near impossible for an individual.

If Mamadou would have had a financial buffer that would have allowed him to bridge the early stages of starting an urban waste management service. during

I mobilised a team of 7 young men to collect organic waste using a tricycle. The compost we produced from the waste varied from month to month and was up to 1.5 tons in some months

many seeds in each planting hole, so they started to select their seed and only put 2-3 seeds per hole.

Trying to tackle two major problems at a time, namely supporting farmers to grow healthy, chemical-free food and managing urban waste, Mamadou founded his company Or-Durable in 2022.

Mamadou discussed with neighbourhood leaders (chefs de quartiers) in Ziguinchor about collecting plant waste from urban households. "I mobilised a team of 7 young men to collect





which investments are higher than the returns, things may have turned out differently. Providing video-mediated training could have generated some early revenues, but for this the conditions were not in place.

Mamadou marketed his video screening services via social media, but his personal network with development organisations little knowledge of development organisations working in the region," says Mamadou.

Mamadou went through a difficult period and all came to a standstill in late 2023. After a few months of inactivity, he is reflecting how to move forward again. Access Agriculture has increased its efforts to help him find paying clients. If some large development projects could be convinced of the power of video-based learning and be motivated to use Mamadou's services, things may brighten up again.

Given the high demand for organic fertiliser, there still is a great business opportunity to be explored. But as a green start-up, it may be more manageable for a cash-strapped individual to start producing liquid biofertiliser with microorganisms, which is far less bulky and laborious to produce, and hence easier to manage than an urban waste collection and compost-making enterprise.

Mamadou marketed his video screening services via social media, but his personal network with development organisations was small

was small. After one year, he still had not managed to land a contract. "Asking farmers to pay for watching a video is hard. Most farmer groups have worked with development projects who have been paying farmers a per diem to attend training sessions, so farmers also expect this from me. And I had no connections and

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It takes time to establish an advisory business



Marie Angélique Faye

This story is about two young entrepreneurs who have teamed up: Marie Angélique Faye, who lives in France, and Famara Badji who lives and works in the Casamance, southern Senegal.

"I am from an ethnic group in Senegal, called the Sérer, who are traditionally farmers. The school summer holidays coincide with the rainy season, so as a child I used to go and help my grandparents on their farm. When I was just 13 years old, I started my own research on the internet, Marie came across and got inspired by the Access Agriculture videos, which were provided in many different languages. The videos were also accompanied by factsheets from which she could get more information on the particular subject that was being covered in the video. With a personal passion for audio-visuals, she launched a crowdfunding campaign to be able to create digital training content but was not able to raise enough money.



Famara Badji

It is hard to be a YouTube entrepreneur as one needs to be able to post new videos every week. And to make a video from scratch takes a lot of time

poultry enterprise," says Marie Angélique Faye. Her father being an agronomist, she decided to pursue her studies in France in 2017, covering biology and later on also agriculture and food technology at Montpellier SupAgro.

Being an entrepreneur, Marie Angélique began to explore how she could provide an online training service to help others in their enterprises, so she started using Instagram in 2018. While doing Not giving up and realising that nearly everyone appreciates video-based learning, at the age of 19, she created her own YouTube channel, Africagriculture in 2021 and built it up to 14,500 followers in just two years. "I soon had people willing to pay 50,000 francs CFA (75 Euro) to attend online training on any topic related to agriculture and food processing, but it is hard to be a YouTube entrepreneur as one needs to be able to post new videos every week. And to make a

video from scratch takes a lot of time," confesses Marie Angélique.

As she regularly visits the Access Agriculture website, Marie Angélique got to know about its network of young Entrepreneurs for Rural Access (ERAs) and the online call to invite applicants from Senegal. With Famara Badji, one of her friends back home in the Casamance, she decided to submit a brief proposal with a basic business plan on how to generate revenues from screening and selling Access Agriculture videos. Famara's experience working with farmers nicely complemented Marie's interest in digital learning.

Famara, just like Marie Angélique, had spent many school holidays helping his grandfather. In the village of Albadar, Kafountine commune, not too far from the Atlantic Ocean, his grandfather had a citrus and mango plantation, with which he was able to support his entire family.

Several experiences shaped Famara's fervour for organic agriculture. First of all, his uncle who was in charge of selling agrochemicals to cotton farmers in the Kolda region died at the age of 38. As he had his office in the shop, his uncle was continuously exposed to herbicides and pesticides. The autopsy revealed various chemical substances in his blood.

An agronomist by training, Famara also witnessed several serious cases of pesticide poiso-



ning during his field research as a student: "One time, farmers in Guiro Yéro, some 30 kilometers from Kolda, had treated their groundnut fields with a glyphosate-based herbicide to kill the weeds. They left the empty bottles lying around. After a heavy rain, one of the children in the village took one of the herbicide bottles, collected rainwater in it and drank it. Three days after being admitted to hospital, the child died."

In 2020, Famara followed a training on organic farming and standards by EcoCert, a European-based, organic and natural products regulatory organisation and started to work as an independent consultant. That same year, he also received a training on food safety from the Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP), a not-for-profit interprofessional association that helps producers and exporters of fruit, vegetables,



flowers and plants to comply with European standards.

The team of Marie Angélique and Famara was selected as one of the finalists from the Access Agriculture call and received a solar-powered smart projector with the entire Access Agriculture video library off-line. While Marie Angélique was finalising her studies, she regularly interacted with Famara, who started to screen farmer-to-farmer training videos to groups of mango and cashew farmers

Sometimes it takes time to establish a business and find ways to make the best use of digital learning tools

"To each group, depending on the interest of farmers I screened different videos, such as Compost from rice straw, Managing fruit flies and Growing annual crops in cashew orchards. Women were also keen to watch the video Enriching porridge with baobab juice, to make it more nutritious for their babies," says Famara. He screened the videos in the local language, Wolof, in the open air in the late afternoon.

The Casamance conflict that lasted for more than 30 years hit the region hard. Since the cease-fire in 2014, its people have been striving to improve their lives. Being active in 28 villages in

Bignona Department, APAD, the Planters' and Beekeepers' Association, works with 196 individual members plus 4 economic interest groups, one of which is made up of 112 women members. Triggered by the Access Agriculture videos Making mango crisps and Preparing cashew apple juice, APAD decided to start processing fruit and vegetables into syrups, juices and jams. It had a fruit and vegetable drying unit with two gas dryers built by technicians from the national Food Technologie Institute (ITA). In 2023, the cooperative processed about 30 tons of fresh mango and sold 2,350 kilograms of dried mango crisps on the local market. APAD employs seasonal and permanent staff (on average 225 a year) and periodically trains its staff, 70% of whom are women.

"All farmers like the videos a lot, but nobody has been willing to pay, because for years NGOs working in the region have paid farmers to attend their training sessions. Farmers have become accustomed to be on the receiving end and initially also expected that we would pay them. To cover the transport costs for the video shows in the villages, I used the money generated from my online training sessions, but this was not sustainable" says Marie Angélique.

The West Africa regional coach from Access Agriculture encouraged the team to offer their digital extension services to NGOs, but so far it has failed to land a contract. Also, negotiations with



the semi-public company SODAGRI (Société de développement agricole et industriel du Sénégal), which falls under the Ministry of Agriculture and produces and maintains agricultural equipment, has not yet materialised in a contract



quality and hygiene standards are maintained throughout."

Famara is setting up an organic and agroecological farm school in Niadieme village, commune of Sansamba, in the Sédhiou region, where he plans to combine videobased training with hands-on practice. The farm is set to produce and process organic cereals, fruit and vegetables, and rear agroecological poultry and small livestock. It will produce and sell seeds and seedlings to farmers and sell fresh produce directly to consumers in the Kolda region via a farm store run by the farm manager for purely agroecological products.

Famara believes that by offering different types of training packages, he will be able to generate additional revenues and most of all support rural youth employment. "We have to show the youth in our country that instead of migrating to Europe, there is a future for them here in agriculture," Famara concludes.

Marie and Famara's storv shows that sometimes it takes time to establish a business and find ways to make the best use of digital learning tools. Yet all of the challenges they have faced to date have not shaken their faith, as Marie Angélique continues to explore new opportunities. Although just in her early twenties, she is confident that her mission and great life passion of taking digital extension services to farmers through farmer-to-farmer learning videos will take off and be successful.

Likewise, Famara is confident that things will change for the better and that a holistic approach to healthy food is needed. "Farmers need to be trained on all aspects of food production, processing and marketing, so that We have to show the youth in our country that instead of migrating to Europe, there is a future for them here in agriculture



Trust that pays: When a teacher becomes an entrepreneur



James Nyaonge

James Gamba Nyaonge is a young, primary school teacher in Nyamikoma, near Lake Victoria, in northern Tanzania. "As a civil servant, I have been granted access to some government land to top up my meagre salary, so in 2019 I decided to start producing and selling quality cassava seed," James says. He obtained disease-free planting material from the Tanzania Agriculture Research

production and seed production, James soon became a respected community-based entrepreneur.

As several new cassava diseases were threatening the sector, in 2021 he was invited to a meeting of the Ministry of Agriculture in the capital Dodoma to discuss with other farmers about the future of cassava in Tanzania. It was at this meeting that he

I make some money from the video screenings, but more importantly it helps me promote my own seed business

Institute. Being trained by the NGO MEDA (Mennonite Economic Development Associates) on cassava



heard about the competition for young Entrepreneurs for Rural Access (ERAs), organised by Access Agriculture. James applied, was shortlisted and then underwent interviews, before being selected as one of the four entrepreneurs to receive a smart projector under the competition.

Keen to educate his fellow farmers with the smart projector that contains over 150 videos in *Kiswahili*, James organised his first shows in collaboration with MEDA. Over the past couple of years, James has been screening videos to many farmer groups, based upon their demand. To each



farmer attending he charges 500 Tanzanian Shillings (about 0.20 Euro). As the cooperatives have a fixed agenda for their meetings, they give him a time slot during which he can show two videos at a time.

"I make some money from the video screenings, but more importantly it helps me promote my own seed business. In 2019, I earned 1.5 million Tanzanian Shillings (550 Euro) from selling cassava seed and last year it was already 2.5 million (900 Euro), a 66% increase," James says.

Pricila Nugendi, mother of 13 children, in Kiabakari village, is a member of a women's group, whom James trained using Kiswahili videos on the smart projector. Cassava is a staple food, eaten cooked or dried and made into flour. Mixed with some millet, it is made into local bread.

Pricila and her community members were desperate when the cassava mosaic virus and cassava brown streak virus attacked their crop. Having learnt from the Access Agriculture videos shown by James on how to diagnose the diseases early and manage them without any agrochemicals, Pricila increased her cassava harvest from less than 500 kilograms on her field of

Teachers know how to teach more than anyone else. James' commitment to educate is unmatched

a bit less than half a hectare to over 2 tons. Her worries to feed her family are gone, and she has enough to pay school fees and other necessities like clothing.









As a cassava seed producer, James has screened all the videos on <u>cassava</u>, such as <u>Quality cassava planting material</u>, <u>Cassava mosaic virus</u> and <u>Cassava harvest made easier</u>.

James has also screened videos on how to control the parasitic weed striga, which causes great damage to maize, sorghum and millet. "Many farmers have learnt that cow dung can help to control striga. Before, they just cleaned the area where the animals were kept and considered the dung as trash, but now they see it as a valuable resource. Some are even selling manure," James adds to stress the significance of this behavioural change.

Being an active member of





the community, James has seen that many women started growing vegetables around their house "Pupils who want to watch videos need to stay after school is out in the early afternoon. I His commitment to educate people to improve their lives has meant that James is trusted by his fellow teachers and farmers, as well as government and non-government organisations working in the area.

To new Entrepreneurs for Rural Access, James has one piece of advice: "If you already have your own business, ensure that the money you charge for video screenings is affordable for all, as for sure the screenings will boost your own business."

Teachers know how to teach better than anyone else. James' commitment to educate is unmatched.

From late 2021 to 2023, James reached more than 2,000 farmers and about 30,000 children. About 60% of his audience were women and girls

after watching the video <u>Using</u> sack mounds to grow vegetables, so they have more vegetables on their table and the surplus they sell at the local market.

Being a district youth representative in the Tanzania Teachers Union (TTU), James also took the opportunity to showcase the power of the smart projector to other teachers during their meetings. It has created a real demand. By 2023, James had already screened videos in over 60 primary schools. From late 2021 to 2023, James reached more than 2,000 farmers and about 30,000 children. About 60% of his audience were women and girls.

charge 150 Tanzanian Shillings per pupil (0.05 Euro). Not everyone stays, but I often get 150 pupils and gather them in a large classroom," James explains.



The smart projector – a key that opens doors



Lilian B. Sambu

Lilian B. Sambu had always dreamed of becoming a lawyer, but her career was destined to take a different direction. "My father reminded me about my passion for nature. From an early age, my brother and I helped my mother planting seeds, watering and harvesting the crops with great devotion," says Lilian. It was likely therefore that nature conservation and ecological agriculture would converge in her life at some stage.

In 2013, Lilian obtained her degree in Tourism, Cultural Heritage Management and Nature Conservation from the University in Dodoma, Tanzania, and conticompany 'Lilany Greenpro Business' with a clear vision to contribute to transforming African mindsets, especially of youth and women, by turning their challenges into investment opportunities to make Africa a better place.

"As an entrepreneur, it is crucial to network, be part of different platforms, be active on social media and continuously explore opportunities. That is how I got to know about Access Agriculture and the competition it organised in 2021 to identify young Entrepreneurs for Rural Access (ERAs) as digital advisory service providers in Tanzania," says Lilian.

Being one of those selected, and learning from the challenges that another ERA had faced in Tanzania, who struggled to collect small amounts of money from farmers for each video show, Lilian decided to try another approach that would create maximum impact and benefit rural communities as well as her business.

"You need to identify farmers' main challenges and explore which organisations are trying to help farmers address those challenges. Once you have done your research, you need to reach out to those organisations and show them what you have to offer to help them achieve their goals," explains Lilian.

Once you have done your research, you need to reach out to those organisations and show them what you have to offer to help them achieve their goals

nued studying agriculture, business, leadership and innovation through short courses at Sokoine University, the International Institute of Tropical Agriculture (IITA) and the International Labour Organization (ILO).

In 2018, Lilian established her

Lilian, who is an alumna of multiple young entrepreneur networks, including from IITA, the German development agency (GIZ), the Tony Elumelu Foundation and Michigan State University, learnt that cereal and groundnut farmers in Tanzania and across the world struggle with aflatoxins, which are produced by certain fungi on stored grains and pose a major health risk to people and livestock

Knowing that Access Agriculture had a partnership with the Tanzania Organic Agriculture Movement (TOAM). Lilian decided to take them on board as a partner to go to villages. "The very first time we went out, TOAM had invited a few extension officers and lead farmers from Chamwino district in Dodoma. When we used the smart projector to show farmers the videos on how to manage aflatoxins in maize and groundnuts, everybody was thrilled about the quality of the content," recalls Lilian. TOAM kept on inviting her, while Lilian gradually expanded her client base, to include working with Sustainable Agriculture Tanzania (SAT), another NGO promoting agroecological principles.

With a growing conviction of the power of the smart projector and the relevance of the farmer-to-farmer training videos, many of which are available in *Kiswa-hili*, Tanzania's national language, Lilian used her network to find out who within the Ministry of Agriculture would be the best person to approach to talk about aflatoxins

and the digital solution she had to help extension workers scale their impact.

"I really wanted to convince the Ministry of Agriculture that they should procure smart projector kits for their extension workers, but government institutes can be hard to convince and have long and complicated protocols," says Lilian.

cers trained a group of 25 farmers each, while Lilian trained a single group of 180 farmers, of which about 50 were illiterate.

Within one hour Lilian's group had watched the three videos on *Managing aflatoxins* and had a lively discussion. Many farmers eagerly shared their personal experiences and what they had learnt. "A few told me that they



So, Lilian challenged the head of the Aflatoxin Prevention Initiative for a simple experiment. She would train one group of farmers on aflatoxin management using the smart projector, while six extension officers would use their conventional approach, using a flipchart and leaflets to train other groups. They agreed that each would get three hours and that they would measure the time needed, assess farmers' understanding and what they had memorised. The six extension offi-

had heard about aflatoxin contamination before, but they had no idea what it was and they had continued eating infested maize, fed it to their animals or used it in their local, fermented maize beer unknowingly," says Lilian. All agreed that after watching the videos they will change their practice, and many said they would inform their fellow farmers.

One young woman reacted: "I had already heard about aflatoxin on the radio last year, but I never

understood what it is exactly. But by watching the video, we understand what aflatoxin is." An elder man in the audience said with disbelief: "I have seen in the region where I live that local brewers often use maize and sorghum affected by aflatoxin to make alcohol and sell to people in traditional bars. They believe that after fermentation no one can taste that bitterness and bad smell."

The extension workers needed four hours and upon assessment, it turned out that many farmers

Managing aflatoxins in maize

trained. The impact of the videos was striking. "Farmers also firmly expressed their desire to learn from the 250 videos that we have in our smart projector kit. As we reached more than 2,000 farmers in Bahi district in Dodoma Region in two days, the Ministry asked us to also train farmers in Mbeya region and to accompany extension workers in different parts of the country. Within a few months, I had trained over 1,000 agricultural officers," says Lilian proudly.

Based on interactions with local leaders, Lilian often screens



A few told me that they had heard about aflatoxin contamination before, but they had no idea what it was and they had continued eating infested maize, fed it to their animals or used it in their local, fermented maize beer unknowingly

still did not understand what aflatoxins were and how to manage them. Lilian was then asked to train the farmer groups the extension officers had previously the <u>Kiswahili</u> language versions of the Access Agriculture videos at schools, universities, churches, farmers' events and trade fairs to groups between 70 up and a few

hundred people. Each screening is followed by a lively discussion.

By quickly building up a good reputation and targeting the most relevant organisations to engage with, in just two years Lilian reached more than 6,000 people, of whom 65% were women and 65% were youth. After each video show, she provides the client with a detailed report.

Depending on the client, Lilian charges between 100,000 Tanzanian Shillings (37 Euros) and 200,000 Tanzanian Shillings (75 Euros) per day. To keep track of her revenues as a digital rural service provider, she opened a separate bank account. From 2021 to 2023, Lilian has earned 11 million Tanzanian Shilling (4,250 Euros) from her video screening business.

"The smart projector is like a key: it has opened so many doors. And not only to NGOs but also government organisations," says Lilian. As a business, she has worked with many international organisations, such as IITA, SNV Netherlands Development Organisation, the International Fund Agricultural Development for (IFAD) and the Food and Agriculture Organization of the United Nations (FAO), always delivering beyond their expectations.

Lilian constantly looks for opportunities that can help farmers. For some years, her company exported the extremely spicy bird's eye chilli for a client, so the videos helped her build a relationship with women's

groups who agreed to grow this chilli through an outgrowers programme. Lilian trained the women on organic practices using the videos, and the women had a secure market.

farmers. Manv such members of the Magufuli farmers' group in Chamwino district, learnt from experienced farmers in India how to make organic fertiliser by watching the video Good microbes for plants and soil Others learnt how to make Vermiwash: an organic tonic for crops. When applied to their tomato plants, they realised that they could harvest tomatoes for three months longer than unsprayed crops, and they tripled their yield.

"Even if the smart projector does not have videos on all crops, it opens opportunities," says Lilian. When she was contacted by an export company to supply hibiscus, among some other crops, she proposed this to the Magufuli farmers' group and immediately four women volunteered to experiment with this new crop. Having seen that it grows under their conditions and that it earned them extra money, all members will start growing it on abandoned land in the coming season as Lilian provides them a secure market.

Lilian, an eternal student, always practices the things she teaches on her 1-hectare farm. Since 2020, Lilian also established a nursery with avocado seedling that are resilient to pests and drought. "The international"

To mitigate and adapt to climate change, we need to be innovative. The smart projector really is a multi-purpose tool

demand for avocadoes is huge," says Lilian, "and with climate change large export countries such as Mexico see their production dwindle, so companies are increasingly turning towards Africa." Tanzania already has some avocado growers, but export markets have such high-quality standards that a large part of what farmers harvest is rejected, strongly reducing their profit margins. Searching for a solution, Lilian started to buy the avocado

rejects to make avocado oil from them. Besides avocado, she now also makes oil from baobab, neem, oil palm, eucalyptus and lemon grass, which she buys from outgrowers. "We are ready to expand our business. With our digital extension service, we can easily enlarge our network of outgrowers. In the next ten years, together with partners, we want to engage at least 50,000 farmers, of which more than 70% would be women."



"Whenever I screen videos in villages, I promote our resilient avocado seedlings and any other service or product of our partners in whichever agricultural value chain, be it quality seeds, financial services, good agricultural practices or value addition. To mitigate and adapt to climate change, we need to be innovative. The smart projector really is a multi-purpose tool," says Lilian.

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Supporting Slow Food, women pastoralists and disabled children



Stephano Msuya

Stephano Rashid Msuya grew up on a farm and studied Project Planning, Management and Community Development from the University of Dodoma in Tanzania. For 6 years, until 2023, he worked for Mviwaki, a network of some 220 farmer groups in the Kilimanjaro region in the northern part of the country. Stephano has trained farmers and pastoralists from various ethnic groups, such as the Maasai, Pare, Chagga and Sambaa

In 2017, Stephano joined Slow Food, a global movement that promotes local, fair food and traditional food cultures, for which he has coordinated activities and set up school gardens in the Kilimanjaro region. In 2021, Stephano learnt from Elphas Masanga, a member of the Slow Food Youth Network in Africa, that Access Agriculture had launched an online call for young Entrepreneurs for Rural Access (ERAs) in Tanzania. Just a few months

The women have encouraged farmers to plant the traditional banana variety, which is now enjoying a true revival





Stephano's real passion for agroecology started in 2016 when he joined a three-week training course on organic agriculture, organised by the NGO Sustainable Agriculture Tanzania (SAT). The training opened his eyes about the risks of agrochemicals on human health and the damage they cause to soils and the environment. "My mum was a rice farmer and she used animal manure only. She strongly disliked chemical fertilisers and pesticides and refrained from using them, but I didn't realise at that time the importance of her views," Stephano says. earlier, Elphas had become an ERA in Kenya and had started sharing exciting experiences of screening farmer-training videos through the Slow Food network's WhatsApp group.

Based on his innovative proposal and experience, Stephano was selected as an ERA. In the first two years, Stephano organised 68 video screenings and reached 1,500 farmers of whom half were pastoralists. Two thirds of his audience were women and half were younger than 35 years.

"Before, I struggled to mobilise even 20 farmers to attend my training sessions, but since I started screening quality farmer-to-farmer training videos in Kiswahili using the smart projector, often more than 60 people attend my training sessions," Stephano says.

is tapping into the Access Agriculture video library as a source of knowledge and inspiration.

When he screened the video <u>Village savings and loan associations - VSLA -</u> the women from the Kitarasa food community

do not take part in making decisions on the sales of the animals nor on how the money has to be used. This often leads to conflicts in the household. Inspired by the *VSLA* video, five groups of Maasai women started their own saving associations: Elotumu, Neema ya Bwana, Enjipai, Kilimanjaro group and Ewangoni.

Being member of a VSLA, the women can manage their savings and support each other with microfinance to set up small businesses, such as selling eggs and poultry as these are not given a lot of attention by men. Because the women are well organised, the district council loaned 3 million Tanzanian Shillings (1,200 Euros) to the Enjipai group. With climate change and declining herds, men



Over the years, Slow Food has established various food communities, such as the Kitarasa food community in Rombo district. Its 32 members, mainly women, promote the Kitarasa banana, a traditional variety found on the slopes of Mount Kilimanjaro that had almost completely vanished after agribusiness corporations introduced monocultures of the Cavendish variety.

Going from village to village the women from the Kitarasa food community explain its nutritional and health benefits, establish a demand and create a market. By doing so, the women have encouraged farmers to plant the traditional banana variety, which is now enjoying a true revival. To strengthen the group, Stephano

Inspired by the VSLA video, five groups of Maasai women started their own saving associations

really liked it and started their own savings group. "The video helped to enhance the sustainability of the group. Some members are also part of Mviwaki, so they benefit from those activities as well. There is a lot of cross-fertilisation between interventions by like-minded organisations," says Stephano.

In Maasai pastoralist communities, although women take care of the cows and other livestock, they







often no longer get enough money from selling cows, so some have started to join a VSLA group and even borrow money from their wives.

The region around the majestic Mount Kilimanjaro is seriously affected by climate change, further aggravated by the cutting of forests and trees for fuel and clearing of land for growing monocrops. Pastoralist communities are suffering. In one district, Maasai communities saw about a thousand cows die because of prolonged droughts.

To make matters worse, elephants were moving from the national park in search of food and destroyed all fields in the pastoralist villages. To lessen their hardship, Hand in Hand Eastern Africa, a Swedish NGO, decided to support local communities, working on rangeland and grass

management, and on keeping local sheep, goats and cows.

Stephano was contracted to train 55 farmers for five days. during which he showed various videos, such as Animals & trees for a better crop, Farmers & pastoralists, Pure milk is good milk, and Keeping milk clean and fresh. Some videos featured farmers from Africa. whereas others featured farmers from India. such as Calcium deficiency in dairy cows. As nearly all participants were women, they also wanted him to screen the video on Dairy goat feeding. "They were not used to washing the teats before milking their goats and appreciated learning good practices from the video. When Mviwaki heard from their member pastoralists how much those







Even the blind children had a chance to gain knowledge from the videos as they carefully listened to the local language audio

videos were appreciated, they asked me to screen these videos to other women pastoralists," says Stephano.

As a young entrepreneur, Stephano has been actively looking for potential clients. "When organisations just want to use the smart projector, I charge them 120,000 Tanzanian Shillings per day (about 50 Euros)," Stephano says.

One day, Maisha Outreach Therapy Organisation (MOTO), a local NGO working with children with disabilities in Moshi district, approached Stephano to work with Mwereni Primary school. MOTO offered him a contract for nine days to raise awareness, help set up the school garden and do some follow-up visits. Aiming to instil the importance of climate-resilient farming, Step-

hano used his prior experience from Slow Food to set up school gardens and used the smart projector to screen various videos, including the one on Drip irrigation for tomato and Using sack mounds to grow vegetables.

"The deaf children were sitting close to their friends who were trained in sign language and helped explain the videos. Even the blind children had a chance to gain knowledge from the videos as they carefully listened to the local language audio. Their teacher helped with the facilitation to ensure all children understood the topics." Stephano gave priority to the blind and deaf children to help set up of the drip irrigation in the garden. The kids just loved it.

Stephano has no fixed rate for his services; he charges depending on the context of each client. For his contract with Moto he asked 50,000 Tanzanian Shillings per day (20 Euros). For small farmer groups that live nearby, Stephano has screened videos for just 25,000 Tanzanian Shillings per day (10 Euros).

To promote youth entrepreneurship under the Financial Inclusion Resilience and Empowerment project funded by USAID, Stephano charged 100,000 Tanzanian Shillings per day (about 40 Euros) for a 3-day programme during which he screened videos on Using sack mounds to grow vegetables, Drip irrigation for tomato, Self-help group, and Coffee: group organisation. Even though the youths were not into

growing coffee, he explained to them that they could use a similar model of group cooperatives and management for horticulture.

With the dire environmental degradation, some young people have begun to take personal initiatives to plant trees. Paul Noah, a twenty-four-year-old man from Ruvu village in Same District, has more than a hundred goats. When he learnt about the importance of trees from watching <u>Animals</u> & trees for a better crop, a video developed in Mali in semi-arid West Africa, Paul adapted the idea to his local context and decided to plant moringa and gliricidia trees on his farm to feed his animals.

"Young people in villages ask for videos that relate to their activities, and they really like it when they see such videos. I saw an increasing number of youths attending training, because they are attracted by digital technology," Stephano says.

In May 2023, Stephano and four friends registered their own civil society organisation, called Agri-Diversity to promote sustainable agricultural practices to farmers, mostly women and youth. No

longer working for Mviwaki, Stephano and his team plan to use the smart projector to show farmer-to-farmer training videos and provide support to field activities.

Stephano has the following advice for new ERAs: "Young people have change at their fingertips; they easily master digital technology, but they should have a passion to serve local communities. As each community has different needs, you need to listen and be responsive. Likewise, clients have different objectives and abili-



ties to pay for training services, so you need to be flexible in setting prices. Use social media such as Instagram and Twitter to reach out to organisations who may be potential clients. When they see you are actively working with different organisations, they take you seriously and will ask you to work with them too."



A young woman's drive to revive oases in Tunisia



Faouzia Semeti

Faouzia Semeti, like many young agricultural engineers graduating from university, only learnt about applying pesticides to protect crops, not how to farm in harmony with nature. Faouzia is a sweet but fiery person, determined to share her passion for agroecology with peers from university and with farmers from her hometown Al Hammah oasis, about 400 kilometres south of Tunis, in Tunisia.

In 2022, Faouzia joined a post-graduate program for value chains in organic agriculture in Germany, during which she visited

Biofach, the world's leading trade fair for organic food. By talking to experts, she learnt how the harmful conditions in which crops are grown nowadays diminished the taste of food. Faouzia also learnt that medical doctors are advising cancer patients to eat organically produced foods.

That same month Faouzia's aunt in Al Hammah was diagnosed with advanced cancer. Her uncle travelled great distances to get healthy vegetables, fruits and chickens for his wife. He even started a small garden to grow their own food. "Unfortunately,

So many people in Tunisia are diagnosed with cancer and there is a lack of awareness of how the food we eat affects us



my aunt passed away. So many people in Tunisia are diagnosed with cancer and there is a lack of awareness of how the food we eat affects us," says Faouzia. This strengthened her determination that action is needed to educate people and raise awareness – from the seeds to the plate.

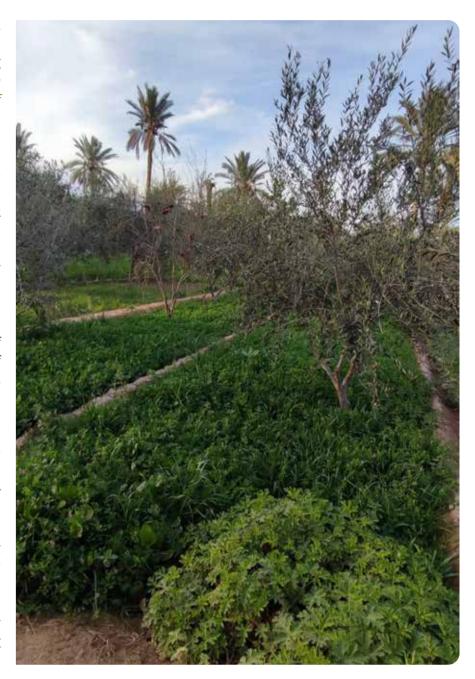
Upon her return, Faouzia initially thought of working in the capital, Tunis, but her heart

guided her back home to Al Hammah, where she decided to set up her agricultural consulting office. "I could have set it up in the nearby, more commercial town of Gabes, but I wanted to be accessible to farmers," says Faouzia. She called her enterprise Mandra - a word in Amazigh, one of the Berber languages, which signifies the place where a harvest is stored or a place of blessings. The name reflects Faouzia's desire to support any farmer in their transition towards a better and healthier agriculture.

She recruited a team – of mainly young women like herself – and established their services in line with the public authorities' subsidy system to promote the development of agricultural land. "Working this way, many farmers would seek out our services in order to get permission for their irrigation wells and get up to 50% financing for their projects, so it was a great way to start networking and meeting farmers directly."

In her small oasis village, many farmers had shifted to farming with hybrid seeds. When a friend shared a Facebook post from a local farmer Zakaria on the importance of conserving seed of local varieties adapted to oasis conditions, she immediately wrote to him requesting a meeting.

To her amazement, Faouzia was invited to a small guesthouse in Chinini village, close to the nearby town of Gabes. Sitting with Zakaria was Mabrouk Jabri, the owner of



By watching Access Agriculture videos, farmers feel connected with fellow farmers across the world

the heritage house. He turned out to be a long-time friend of Pierre Rabhi, a farm leader of seed sovereignty and agroecology movements in France and North Africa

Soon after this chance meeting, in 2022, the GIZ-funded project Knowledge Centre for Organic Agriculture in Africa (KCOA) was launched in North Africa. "When



It is amazing that even children think all insects are bad and must be killed. They do not know there are good insects and how local ecology works. They are the future and need to learn

> the call for the Young Entrepreneur Challenge Fund was shared by Access Agriculture and the Centre Technique de l'Agriculture Biologique (CTAB), I received the link from so many friends urging me to apply," says Faouzia.

> Faouzia recalls reviewing the Access Agriculture video library as if she was looking through cooking recipes: there were so

many practical steps farmers could take to revive the fertility of oasis lands and help conserve water. "There is a lot of knowledge to help farmers, but most of all, the videos show the need to work in a participatory manner. The smart projector has been crucial as we could use it with groups to exchange and trigger important questions and learning," says Faouzia. She laughs thinking how farmers in Al Hammah feel they are located in remote areas and far from technology. By watching Access Agriculture videos, farmers feel connected with fellow farmers across the world.

One day a week, Faouzia and her colleague, Sabrina, watch Access Agriculture videos and decide how they are going to use them. They often test videos with farmers visiting their office, using their laptop, to get a discussion going and learn from their feedback. Once they have enough confidence, they screen the videos in a group setting. "I immediately saw how the videos help summarise the ideas I share with farmers in meetings — ideas just land faster with video," says Faouzia.

The team started reaching out to local NGOs that support rural women, to develop ideas for projects around growing and drying chilli pepper. Their proactiveness has started to pay off as new projects kick off and are in need of trainers. Within only six months of working with the projector, Faouzia started getting requests to deliver workshops as part of large-scale, national

programmes that support rural women's entrepreneurship.

Faouzia is full of ideas on how to expand her business using videos. Inspired by the Gabes



and must be killed. They do not know there are good insects and how local ecology works. They are the future and need to learn, and even help their parents learn!"

Waleed, a local lead farmer, originally met Faouzia as part of an irrigation project, but now they are exchanging ideas and learning about vermicomposting. Waleed has a supply of red wigglers and Faouzia is excited to promote this by often screening the video

With lead farmers, like Waleed and Zakaria, Faouzia is setting up a network of model farms to demonstrate agroecological practices to other farmers in oases villages. This will allow farmers to see how easy it is to use alternatives to pesticides and fertilisers that are cheap, locally produced and friendly to the environment.

"I hear from CTAB that farmers are tripling their food production using organic methods after three years in transition. We know the road is long, but we are not backing down. We plan to create a solid plan to accompany farmers. The most important thing in our work? Never compromise on your values!"



I hear from CTAB that farmers are tripling their food production using organic methods after three years in transition

Film Festival that showcases a large portfolio of films related to land issues, making these important stories accessible to local communities, Faouzia would like to explore a membership fee for movies, shows and videos focusing on the land preservation of the oasis ecosystem. "Our communities are changing fast, so urgent action needs to be inspired and sustained," says Faouzia with determination.

Faouzia knows that the future lies in the hands of the next generation, so she goes to local schools and youth clubs to show them videos, such as <u>Flowering</u> plants that attract the insects that help us. "It is amazing that even children think all insects are bad

<u>Vermiwash: an organic tonic for crops.</u>

Faouzia has the vision for Al Hammah oasis to be free of chemical and pesticide use, driven by strong cooperative work. To show how this works, she is making compost on her family land.

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Screening videos: A mushrooming business



Canary Ahabwe

Canary Ahabwe grew up on a cocoa farm in Western Uganda. where his father also rears chickens and pigs. Wanting to learn more about agriculture improve the living conditions of his family, Canary studied agriculture at Rwentanga Agricultural Institute, after which he was offered the opportunity to obtain a diploma in Israel, where he got hands-on training on mushroom production and packaging. On returning to Uganda in 2019, together with four energetic and motivated young men, Canary started a business, Agro-Mush. in Kabwohe.

Entrepreneurs for Rural Access in Uganda.

"When we first screened videos in communities, it was hard at first to mobilise people. The farmers had no idea about the smart projector and were reluctant to pay to watch videos. So, we screened videos for free in order to get a large audience. But now that they know the value of it, people come and pay 500 to 1,000 Ugandan Shillings (0.12 to 0.25 Euro) per video. We adjust the price based on the size of the audience, which encourages

Having no money or land, women are usually interested to see videos related to enterprises that can yield some food and earn them money



As a member of a local agricultural WhatsApp platform managed by the Agricultural District Officer, Canary got to know about the Young Entrepreneur Challenge Fund, through which Access Agriculture had launched a call. Knowing the great need for practical agricultural knowledge and seeing the potential, he and his team members applied and became one of the first teams of

farmers to bring their neighbours along in subsequent shows," Canary explains.

In Western Uganda, many men travel long distances to earn money for their family, so the audience is mostly made up of women. Having no money or land, women are usually interested to see videos related to enterprises that can yield some food and earn

them money. No wonder that the videos on mushroom growing and growing vegetables on sack mounds have been very popular.

Elizabeth Birungi is one of the more than 150 women trained by Canary and his team members across the country who started mushroom farming as a business. As a teacher, she realised that she needed a quick alternative source of income during the Covid lockdown, when schools were closed.

Using locally available, dried banana leaves and bean husks that used to be burnt as substrate. she produces 30 kilograms of oyster mushrooms per week, of which she uses two kilograms to feed her family, and the rest she sells to vendors in Mbarara Central market and the community around, earning her about 220,000 Ugandan Shillings per week (55 Euros). Since the end of 2021 Elizabeth has not only been able to complement her family's diet with such a delicacy but also to sustain family needs (clothing, medication, food and basic utilities), and and ensure her children go to school.

Inspired by Adriko Simon Negro, another Entrepreneur for Rural Access who has a long-term contract from the Red Cross to screen videos in a refugee camp in West Nile, Northern Uganda, Canary was intrigued by this option. To promote the services of all ERA teams in Uganda, Access Agriculture organised a national event, inviting the ERAs and various potential clients. Besides

international and local NGOs, civil society networks and local governments, it had also invited a representative from the United Nations High Commissioner for Refugees (UNHCR) who was based in Mbarara. They helped to link the Agromush team to their partner organisations. Contracted Opportunigee, a local NGO, Canary screened various videos, such as Growing oyster mushrooms and Using sack mounds to grow vegetables at Base Camp in Nakivale refugee settlement, near the Tanzania border in Southern Uganda, about 50 kilometres from his company.

In 2023, AgroMush was also contracted by AVSI, an Italian NGO, to train street children and children from the slums in Kampala on mushroom growing. "Especially with the street children it was difficult, as many have problems with drugs," recalls Canary, "but from the slums 45% of the kids showed up and some have already started growing mushrooms in the areas



where they live."

Having become an expert in mushroom growing and processing, AgroMush also provides training on value-addition, such



While initially, AgroMush had to invest in organising video screenings, now about half of their monthly revenues come from this, and the rest from sales of mushroom spawn and products

as mushroom soup powder and mushroom porridge for babies from 9 months old to young children up to the age of 10 years. "But our most popular product is mushroom wine, which we even sell in Kenya and Tanzania," Canary explains.

Combining a business that sells fresh and processed, healthy mushrooms (and to a lesser extent vegetables), with a digital advisory service has certain advantages. While initially, Agro-Mush had to invest in organising video screenings, now about half of their monthly revenues come from this, and the rest from sales of mushroom spawn (the actively growing mushroom culture) and fresh and dried mushroom products. Canary predicts the training part of the business is likely to expand.

The Ugandan Ministry of Education introduced skills training in the country's curriculum in 2023. Agro-Mush has already been contracted by eight secondary schools as part of this programme. Contracts are settled with schools, such as the Sacred Heart Girls Secondary School in Mushanga, which pays AgroMush upon delivery of the service. As with farmers, it fixes a price per student based on the number of students to be trained. The training expense is covered as part of the school fees.

"If a school asks us to train students for a week with video screenings and practical hands-on training, we charge 10,000 Ugandan Shillings (2.5 Euros) per student if there are more than 100 students, and up to 20,000 Ugandan Shillings (5 Euros) if the number is less. This is on top of the expenses already paid for transport, food and accommodation," explains Canary.

Besides actively posting on

social media, word-of-mouth is crucial to bring in new customers, according to Canary. Teachers often only work part-time in a particular school and have jobs in up to four schools. When they have had a good experience in one school, they then encourage the other schools to also contract AgroMush.

The smart projector can be seen as the mother spawn to start a digital advisory service. And as with any business, it takes some time for it to grow. From 2021 to 2023, Canary trained 1,650 people, 35% were women and 25% were youth. While his company already employs eight staff, Canary plans to buy three new smart projectors in the near future and expand his team with young Entrepreneurs for Rural Access to respond to



Besides actively posting on social media, word-of-mouth is crucial to bring in new customers

the growing demand across the country.

As advice to other upcoming young entrepreneurs, Canary has a few golden tips: "Newcomers should use social media to showcase their good work, as most new clients first learn about you through the internet. Don't think about quickly earning money from the smart projector. And last but not least, practice some of

what you will screen on the videos and love what you do."

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A young woman broadens her entrepreneurial skillset



Martha Kyokuhaire

Martha Kyokuhaire holds a Degree in Agriculture from Makerere University, but her real passion for organic farming and agroecology only started afterwards in 2018, when she participated in an International Training Course on Organic Agriculture conducted by Go Organic in Eastern Uganda. From 2020 to 2021, Martha worked as farm manager at Kinano Organic Farm located in Luweero district in the Central Region of Uganda, supplying consumers in the capital with organic produce.

solar-powered smart projector, Martha first screened Access Agriculture videos, such as <u>Making a vermicompost bed</u>, to train farm workers at Kinano Organic Farm on how to make vermicompost, among other practices.

When her aunt, a retired civil servant, heard that Martha had become a private agricultural advisor, she invited about 20 colleagues from the St Elizabeth Catholic Small Community Savings Group to watch the videos. "We

Eager to find new clients,
Martha visited the sub-county
agricultural office and explained
her service, after which the local
extension officers kindly provided
her with contact details of
local farmer organisations



In 2021, Martha heard about the Access Agriculture Young Entrepreneur Challenge Fund through AgriProfocus, a network that links different stakeholders in the agribusiness sector. She applied, was successful, and embarked on a new journey as a digitally equipped agricultural advisor.

To gain confidence in using the

turned my aunt's garage into a small cinema hall," recalls Martha, "the women were all excited to watch. They asked a lot of questions and discussed a lot." Martha screened all videos in the local language, Luganda.

The video show lasted from 5pm to 7pm and each woman paid 2,000 Ugandan Shillings

(0.50 Euro). The videos inspired the women to establish their own vegetable gardens and start growing vegetables again. And this time round, organic vegetables.

For a variety of reasons, youth across Africa often move from one place to another, each time having to reintegrate with the local communities. So did Martha. After having studied and worked for a decade in the Central Region, by the end of 2022 Martha moved back to her father's home town of Hoima, in the Western Region of Uganda.

Eager to find new clients, Martha visited the sub-county agricultural office and explained her service, after which the local extension officers kindly provided her with contact details of local farmer organisations.

As farmer organisations across Uganda have been used to receiving free training from a variety of projects and other stakeholders, Martha changed her strategy: "I screened videos for free, and I only charged some money to transfer videos onto farmers' phones." Farmers paid 1,000 Shillings (0.25 Euro) per video.

The biggest impact that Martha



personally saw was in the perception of farmers with regard to the need to vaccinate chickens. Before she screened the video Management of Newcastle disease, farmers had no idea that also local chickens needed to be vaccinated. After the video, farmers asked her

that language, so Martha often screened the English versions of the videos and then translated them during the show. "Now the women members understand what I have to offer, and they spread the word, so I receive many requests," says Martha.



to come back and help. "On Saturdays, one can get smaller batches of the vaccine in Hoima town, so I bought the vaccine and arranged to meet farmers on Saturdays. Using eye drops, I vaccinated more than 200 chickens, about 40 in a day, in two villages. I charged 500 Shillings (0.12 Euro) per chicken," says Martha.

As Martha wanted to reach out to women in particular, she tried to liaise with village saving groups, but women were suspicious towards a newcomer. To gain their trust, Martha joined a savings group. In this part of the country, people speak *Runyoro*, but only a few videos were available in

While doing different jobs, in less than three years, Martha reached about 2,000 farmers, 85% were female and 70% were youth.

For a contract with Self-Help Africa, worth 1.5 million Ugandan Shillings (375 Euros), Martha had an opportunity to train more than 500 refugees over 10 days. Most refugees were from South Sudan and speak a local dialect of Arabic, which is different from that spoken in other Arab countries, so one staff member from Self-Help Africa translated the English video versions.

In different refugee settlements in Adjumani district, Martha screened many videos, including <u>Using sack mounds to grow vegetables</u>, <u>Enriching porridge</u>, <u>Conserving bean leaf vegetables</u>, but also videos on social innovations, such as the video <u>Self help group</u>. Depending on the videos shown, the impact has been

Staking tomato plants



In refugee settlements,
the video Inspiring women leaders
proved to be a game changer,
empowering the marginalised
women and girls to appreciate
their roles in leadership

diverse.

Previously, farmers incurred tremendous losses in tomato production because they did not stake their plants. After watching a video made with Indian farmers on <u>Staking tomato plants</u>, the farmers in the Ugandan refugee

settlements adopted staking. Since then, they have less rotten tomatoes because the tomatoes no longer touch the soil.

Those who watched the video *Mulch for a better soil and crop* realised that after they started mulching, this reduced moisture stress in crops.

According to Self-Help Africa which has worked for several years in refugee settlements, the video *Inspiring women leaders* proved to be a game changer, empowering the marginalised women and girls to appreciate their roles in leadership. By watching videos in groups, it has stimulated social learning among farmers.

Martha is negotiating a new contract with Kulika Uganda, a training centre, to train students on ecological organic agriculture. The director was Martha's mentor during a one-year mentorship programme on African Women Leaders in Agroecology, organised by PELUM Uganda, PELUM Kenya and PELUM Zimbabwe.

While her passion is organic agriculture, she always longed to acquire skills in accountancy, so from mid-2023, Martha decided to take up a job at a hardware shop while she learns accounting on



the job. She plans to do this for one year and then use these new skills in her next job. By building



up competencies, Martha continues to strengthen her skill set.

As to her future plans, Martha wants to focus on home gardening and agroecology. She will keep on using the projector to train women and youth. To market her services, she informs organisations what she has been doing, and what her vision is, using social media.

Martha has this advice to share with newcomer ERAs: "You need to be patient and not give up, even if at times you may think that things are not working out. And if you realize that there is a skill that you need but don't have, try to improve yourself and acquire that skill."



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Giving hope to child mothers



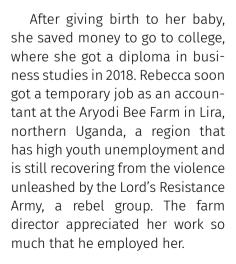
Rebecca Akullu

Teenage girls are vulnerable and when they become pregnant societies deal with them in different ways. In Uganda, they are called all sorts of names, such as a bad person, a disgrace to parents, and even a prostitute. No one wants their children to associate with them because they are considered a bad influence. Parents often expel their pregnant daughters from the family and tell them that their life has come to end. Rebecca Akullu experienced this at the age of 17. But Rebecca is not like any other girl.

says, "and through hands-on training, I became an expert in beekeeping myself. Whenever I had a chance to visit farmers, I was shocked to see how they destroyed and polluted the environment with agrochemicals, so I became deeply convinced of the need to care for our environment."

So, when Access Agriculture launched a call for young people to become an Entrepreneur for Rural Access (ERA), Rebecca applied. The ERAs are farm advisors who

Parents often expel their pregnant daughters from the family and tell them that their life has come to end



"Over the years, I developed a real passion for bees," Rebecca

use a solar-powered projector to screen farmer training videos as part of their business. At first, she combined her ERA services with her job at the farm, but by the end of the year she resigned to fully focus on her new enterprise. Promoting her new business service required courage. Asked about her first marketing effort, Rebecca said she informed her community at church, at the end of Sunday service.

"I was really anxious the first time I had to screen videos to a



group of 30 farmers. I wondered if the equipment would work, which video topics the farmers would ask for and whether I would be able to answer their questions afterwards," Rebecca recalls. Her anxiety soon evaporated. Farmers wanted to know what videos she had on maize, so she showed several, including the ones on the fall armyworm, a pest that destroys entire fields. Farmers learnt how to monitor their maize

do this, whenever asked. Having negotiated with the farm leader, each farmer pays 1,000 Ugandan Shillings (0.25 Euro) per show, where they watch and discuss three to five videos in the local Luo language. Some of the videos are available in English only, so Rebecca translates them for the farmers. "But collecting money from individual farmers and mobilising them for each show is not easy," she says.







Rebecca received a sturdy Buffalo bicycle which allows her to more easily travel with the smart projector kit to nearby villages

to detect the pest early, and they started to control it with wood ash instead of toxic pesticides.

Rebecca was asked to organise bi-weekly shows for several months, and she continues to

The videos impressed the farmers, and the ball started rolling. Juliette Atoo, a member of one of the farmer groups and primary school teacher in Akecoyere village, convinced her colleagues of the power of these videos, so Barapwo Primary School became Rebecca's second client, offering her another unique experience.

"The children were so interested to learn and when I went back a month later, I was truly amazed to see how they had applied so many things in their school garden: the spacing of vegetables, the use of ash to protect their vegetable crops, compost making, and so on. The school was happy because they no longer needed to spend money



on agrochemicals, and they could offer the children a healthy, organic lunch," says Rebecca.

As she grew more confident, new contracts with other schools

economics and computer skills, students can also choose agriculture, so all schools have a practical school farm and are potential clients.

The children were so interested to learn and applied so many things in their school garden

soon followed. For each client Rebecca negotiates the price depending on the travel distance, accommodation, and how many children watch the videos. Often five videos are screened per day for two consecutive days, earning her between 120,000 and 200,000 Ugandan Shillings (30 to 50 Euros). Schools will continue to be important clients, because the Ugandan government has made skill training compulsory. Besides home

While she continues to engage with schools, over time Rebecca has partly changed her strategy. She now no longer actively approaches farmer groups, but rather explores which NGOs work with farmers in the region and what projects they have or are about to start. Having searched the internet and done background research, it is easier to convince project staff of the value of her video-based advisory service.

As part of a collaboration between Access Agriculture and World Bicycle Relief, in 2024 Rebecca received a sturdy Buffalo bicycle which allows her to more easily travel with the smart projector kit to nearby villages.

As Rebecca, now the mother of four children, does not want to miss the opportunity to respond to the growing number of requests for her video screening service, she is currently training a man and a woman in their early twenties to strengthen her team. From 2021 to 2023, Rebecca trained more than 560 people, 48% were women and 67% were youth.

Having never forgotten her own suffering as a young mother. experienced having opportunities offered by the Access Agriculture videos, Rebecca also decided to establish her own community-based organisation: the Network for Women in Action, which she runs as a charity. Having impressed her parents, in 2019 they allowed her to set up a demonstration farm (Newa Api Green Farm) on family land, where she trains young girls and pregnant teenage school dropouts in artisan skills such as making paper bags, weaving baskets and making beehives from locally available materials.

Traditional beehives are made from tree trunks, clay pots, and woven baskets smeared with cow dung that are hung in the trees. To collect the honey, farmers climb the trees and destroy the colonies. From one of the videos made in Kenya, the members of the association learnt how to smoke out the bees, and not destroy them.

From another video made in Nepal, <u>Making a modern beehive</u>, the women learnt to make The bee business has become a symbol of healing. Farmers understand that their crops benefit from bees, so the young women beekeepers are appreciated for their service to the farming community. But also, parents

climbing trees, they are amazed. It sends out a powerful message to young girls that, even if you become a victim of early motherhood, there is always hope. Your life does not end," concludes Rebecca.

The bee business has become a symbol of healing. Farmers understand that their crops benefit from bees, so the young women beekeepers are appreciated for their service to the farming community



improved beehives in wooden boxes, which they construct for farmers upon order. From the video, they realized that they needed to make their bee boxes smaller. "Because small colonies are unable to generate the right temperature within the large hives, we only had a success rate of 50%. Now we make our hives smaller, and 8 out 10 hives are colonised successfully," says Rebecca.

Young women often have no land of their own, so members who want to can place their beehives on the demo farm. "We also have a honey press. All members used to bring their honey to our farm. But from the video Turning honey into money, we learnt that we can easily sieve the honey through a clean cloth after we have put the honey in the sun. So now, women can process the honey directly at their homes."

who had expelled their pregnant daughter, embarrassed by societal judgement, begin to accept their entrepreneurial daughter again as she sends cash and food to her parents.

"We even trained young women to harvest honey, which traditionally only men do. When people in a village see our young girls wearing a beekeeper's outfit and



Regreening refugee settlements



Simon Adriko Negro

Simon Adriko Negro grew up on his family farm in northern Uganda. While appreciating that his dad was able to support his children to go to school by growing and selling tobacco, Simon witnessed firsthand how the excessive use of chemical fertilisers and pesticides affected the health of many tobacco farmers in their community. Also, over the years, soil fertility has declined and the quality of water has deteriorated.

Convinced that farming should not destroy the environment, Simon studied Agriculture at Uganda Martyrs University, and Access Agriculture Young Entrepreneur Challenge Fund. Simon submitted a convincing business plan of how he would use the smart projector with training videos to help people in refugee camps and was selected as an Entrepreneur for Rural Access (ERA) in 2019. Full of excitement, he shared his plans with the Office of the Prime Minister and other stakeholders.

With so many needy people in the refugee settlement, Simon was convinced that he would have a good market. "I thought that I would easily earn 10,000 Ugandan

I introduced the idea that each household in the settlements could grow a wide variety of vegetables with minimal cost in a limited space

then began working as a Live-lihood Assistant for the Danish Refugee Council in the Rhino Refugee Settlement, in the West Nile Region of Uganda. The sett-lement opened in 1980, covers an area of about 225 km² and hosts more than 120,000 refugees from South Sudan, DR Congo and Rwanda.

While working in the camp, a friend alerted him about the

Shilling (2.5 Euros) for a video show, but the first time I only made 1,000 Shilling (0.25 Euro). Hardly anyone was willing to pay; no one had money," he recalls.

With about 1.4 million refugees, Uganda is one of the largest refugee-hosting countries in the world. It also has one of the most progressive refugee policies in the world that enable refugees to become self-reliant and lead

a dignified life while in exile. In addition to access to health care and education, each refugee family is granted a small plot of 30 meters by 30 meters. "Through the video Using sack mounds to grow vegetables, I introduced the idea that each household in the settlements could grow a wide variety of vegetables with minimal cost in a limited space," says Simon.

People who had watched the video began to apply the knowledge, and started earning some

Besides groups of farmers, Simon has also been contracted by international NGOs, such as World Vision Uganda and Self-Help Africa to screen videos and train their farmers in the refugee settlements where he is paid 150,000 shillings per day (37.5 Euros).

"I show Access Agriculture training videos in the languages spoken in the refugee settlements, like French for the refugees from the Democratic Repu-



money from selling the surplus harvest. "They soon started calling me, asking to show them more videos. When I told them I was willing to do so, but only if they paid, this time everyone agreed," says Simon. As an entrepreneur, Simon knows that he cannot work for free, but he is also very much aware that he needs to be flexible, so he allows individuals to pay whatever amount they could afford, which on average is 500 Shillings (0.12 Euro).

People like to attend the video shows, which help to improve relations between the host communities and the refugees

blic of Congo and Arabic for the refugees from South Sudan," says Simon. For the farmers of the host communities, who live alongside the refugees, he shows videos in



the local <u>Lugbara</u> language. At times, the video shows bring different groups of people together, in which case Simon screens videos in the language of the majority and then translates it for the others.

Over the years, because of the high population pressure in the refugee settlements, most native trees have been cut for firewood

"The power of the Access Agriculture videos is that they are self-explanatory and that the visuals are so good. People like to attend the video shows, which help to improve relations between the host communities and the refugees," says Simon.

While women in the refugee settlement have appreciated all the videos on <u>vegetables</u>, onions in particular are key to people's livelihoods. One of the more popular videos has been <u>The onion nursery</u>. Some of the refugee women now even sell onions to members of the host community, which is another nice way to nurture relations.

Describing the reaction from the refugee settlements after watching the training videos, Simon says: "They are happy to learn new techniques from their peers from other countries in the local language. They feel encouraged that if other farmers can produce good crops, they can also do it. At least 20% of the farmers have increased their agricultural production after watching the videos."

Because of climate change, farmers in northern Uganda now only have one cropping season, from May to August, instead of two. Maize is a staple crop in the refugee settlements, so when the invasive fall armyworm started attacking their maize crops in recent years, farmers were grateful to learn how to cope with this pest, by watching the video Killing fall armyworms naturally.

"Over the years, because of the high population pressure in the refugee settlements, most native trees have been cut for firewood," says Simon. The destruction of native trees has contributed to environmental degradation and climate change, which many

NGOs try to address. Simon often screens the video <u>Farmer managed natural regeneration</u> to start a training, followed by a practical session on how to prune the survived tree stumps, how to thin and how to clear weeds around them. Another video shown is <u>Grafting mango seed-lings</u>, to encourage planting of more fruit trees in the settlements.

While refugees now increasingly protect trees on their individual plots, this is also happening on the one-hectare fields managed by groups in the settlements. By injecting the right knowledge, little by little the environment is being revived after years of destruction.

Simon is currently working for DanChurchAid, a Danish NGO that focuses on agroecology. Because the demand for video shows is huge, he has trained four friends to screen videos with the smart projector. Building a team around him has been a good move, as Simon is also pursuing his Master of Science in Climate Change and Disaster Risk Management from Muni University.

From 2019 to 2023, Simon screened videos for about 650 people, mainly refugees. About 80% of his audience were women and girls; 30% were youth.

As a member of the Access Agricultural network of Entrepreneurs for Rural Access (ERA), Simon advises newcomer entrepreneurs to be flexible when it comes to fixing prices, to be responsive to

NGOs try to address. Simon the needs of communities, and to often screens the video *Farmer* network.

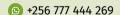
Asked about his plans for the future, Simon confides that he is registering his own company, called Access Agro Solutions. "In Northern Uganda, there is no access to organic inputs, yet the demand is high. Some farmers have been trained by NGOs to produce organic biofertiliser and



biopesticides, but they have no access to markets, so I want to buy from them. I will also produce bio inputs myself and then sell this along with seed."

Being an ERA is not just about making money, it is about contributing to a better world.

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When passion meets purpose, amazing things happen



Ochen Umar Bashir

Ochen Umar Bashir fell in love with agriculture as a child. This was quite remarkable as he belongs to the Karamojong ethnic group of pastoralists, who rely on their herds as source of income and food. Bashir grew up in Karamoja in northern Uganda, which is one of the driest and most food-insecure regions in the country.

When he was about 13 years old, seeing his keen interest, his grandmother gave him a plot of land to develop his own garden. "I would grow maize there and

After he studied Crop Production and Management at Busitema University, Bashir was eager to share his knowledge with other members of his community. "Most of our people have pastoral knowledge and know very little about agriculture," Bashir explains. He started by helping his community members on a voluntary basis and then joined the Warrior Squad Foundation in Kotido, a local NGO, helping farmers adopt good agricultural practices. Later, he took up positions with Mercy Corps and Catholic Relief Services.

The videos have helped the FFS learn beyond their expectations, as the videos simplify the trainings and make them shorter. Most videos run for 10-15 minutes and at the end of the show, farmers grasp well the principles and practices shown in the videos



sell the produce and earn money. So, when I started getting money at that age, I was convinced that agriculture is the way to go. I thought agriculture is something that you just do and after some time, you get money," Bashir recounts.

His experiences and network led him to join Slow Food Uganda that focuses on the preservation of indigenous food traditions and biodiversity, and promotion of agroecology – all issues that were close to his heart. Slow Food Uganda is part of the global Slow Food movement. In 2021,

Bashir participated in the Slow Food Youth Academy's six-month programme and ever since, he has trained youths to establish Slow Food gardens and provided technical support to those in the community who are transitioning to agroecology. Today, Bashir is recognised as a prominent young leader of the Toyoro Kongokinyinyir Nopimpim (Survive with Your Sweat) Slow Food Community in Karamoja region and a technical advisor for the Slow Food Youth Network in Uganda.

In 2022, when Bashir heard about the call for ERAs (Entrepreneurs for Rural Access), jointly organised by Access Agriculture and FAO (Food and Agriculture Organization of the United Nations), he and his team member, Nikolina Lemukol, promptly submitted a proposal. They were among the three selected ERA teams to support FAO's Farmer Field School (FFS) programme in Karamoia region to build climate-resilient capacities and improve rural livelihoods.

In March 2023, they were trained by Access Agriculture, and received a portable solar-powered smart projector, containing hundreds of training videos on agroecological practices, including 50 videos in Karamojong language. In addition, it contained videos in several other languages that are spoken in Uganda.

"I was really excited to receive the smart projector, as it is very resourceful," says Bashir. Since the smart projector has a built-in computer, he also uses it for his business correspondence.

"When I go to the field, I tell the farmers. I have come to train you. but I will talk less – it is the smart projector that will explain to you the techniques step by step. You iust watch and learn."

"The videos have helped the FFS learn beyond their expectations, as the videos simplify the trainings and make them shorter. Most videos run for 10-15 minutes and at the end of the show, farmers grasp well the principles and prac-



Embedding farmer-to-farmer training videos into an FFS has been powerful in that farmers can directly learn from farmers across the world through videos in their own languages

tices shown in the videos." Bashir adds with a smile that farmers told him the projector can train someone within 15 minutes, what would take several days for a training programme to do without the videos. "I provide explanations, where necessary, after the videos are screened," he clarifies.

brings together An committed farmers who are already eager to learn and the videos make the learning simpler and easier. The video shows have also attracted non-FFS members.

"This approach of embedding farmer-to-farmer training videos into an FFS has been powerful in that farmers can directly learn from farmers across the world through videos in their own languages," says Bashir.

Farmers are eager to watch the videos, not only because they are in their own language, but also because the information is clearly conveyed. "Take for example the video Making a cooling chamber for tomatoes. Instead of beating around the bush as is usually

done in training programmes, the video is straightforward and that is what my communities really like," Bashir says.

Initially, he was not able to make much money by showing videos to farmers using the smart projector, but now he works with governmental and non-governapproaches schools and churches in villages to get halls to screen the videos. This strategy has allowed him to earn revenues and save on costs of hiring of halls.

For instance, when Bashir approached the local agricultural department in Moroto district and showed the staff the range

sticks, and charged 500 Ugandan Shilling (0.12 Euro) per video, on top of the unit cost of the carrier.

After he showed the video Controlling banana weevils to the Slow Food International Uganda office using the smart projector, Bashir was given a contract to train youths in various aspects of





Controlling banana weevils

mental organisations as well as schools to train rural communities and schoolchildren. Bashir of videos he has in the smart projector, he was given a 2-week contract worth 20,000 Ugandan agroecology and organic farming. Slow Food International's social media and newsletters have commended him for his efforts to train indigenous pastoral communities in agroecological practices by screening videos.

Bashir approaches schools and churches in villages to get halls to screen the videos. This strategy has allowed him to earn revenues and save on costs of hiring of halls

Shilling (5 Euros) per day to create awareness among the community members on the importance of small irrigation and water saving systems, using videos such as <u>Road runoff harvesting</u> and <u>Working in groups to save water</u>.

On request of Sasakawa Africa Association, he copied videos on maize postharvest onto USB

Bashir first informs the communities what he has in the video library and how this knowledge can benefit them. He then screens videos based on the topics the communities choose. For instance, seeing their interest in vegetables, legumes, nutrition, and agro-forestry, he has shown the videos Storing fresh and dried tomatoes, Drip irrigation for tomato, Managing black rot in cabbage, Harvesting and storage of green gram, Enriching porridge and Parkland agroforestry in various districts in Karamoja region.

In the village of Adi, farmers increasingly struggle because

rains have declined and droughts are more frequent. Bashir was pleased he could train the farmers in simple soil and water conservation measures by showing them videos, such as Zaï planting pits, which is a traditional method used in the arid Sahel to grow crops by making small depressions in the soil to collect and store rainwater.

Shilling (between 50 and 100 Euros) per week.

As part of a partnership agreement between World Bicvcle Relief and Access Agriculture, Bashir was among the five ERA teams from Uganda, that received a heavyduty Buffalo Bicycle to help overcome challenges of transportation







Bashir explains to farmers that even in the dry season they can grow a short-term crop like leafy vegetables, which grow very fast. "Many farmers started growing cowpeas, spinach and amaranth and established a garden for the community. They are now eating fresh vegetables and selling the surplus produce. With that money, they are able to buy essential items like sugar, salt and cookina oil."

so that they can do their work efficiently as e-extension service providers.

Based on advice from his NGO partners, he recently registered his company 'Youth Smart Extension Solutions,' which will greatly facilitate his work with them, particularly for promoting his services as a business.

As a youth leader, Bashir's mantra for budding ERAs is simple, but wise: if you have patience, you will succeed. "I know, as youths, we want quick things, we are looking for quick money, but you have to be patient in whatever you are doing. Always have hope even if things don't work out for vou. Be confident that you can do it, then you will succeed," he concludes.

Bashir continues to be a strong advocate for youth engagement in agroecology. "If they embrace agroecology, they will help it spread," he says. Knowing that young people are fond of watching football matches, his aim is to attract them to his farmer-training video screenings by also showing football matches. To do this, he plans to build his own video hall and hopes to make between 200,000 and 400,000 Ugandan



When young researchers team up



Edward Sibeene

In 2018, two friends from the University of Zambia, Innocent Chansa and Edward Sibeene decided to form a youth-led, non-governmental organisation (NGO), Chedic Associates, committed to make an impact on the lives of rural people. Soon, Choolwe Mweemba joined the team.

Chedic Associates offers various services to support projects and companies working with rural its Africa-wide network of young Entrepreneurs for Rural Access (ERAs), we started screening videos pro-bono to gain experience in providing digital agricultural advisory services," recalls Edward. "Our first paying client, the Natural Agricultural Development Program Zambia (NADPZ), was an established NGO that promotes cost-effective, eco-agricultural approaches with a focus on women and youth. We gathered 25 women leaders from 8 coope-

Women leaders are eager to learn how their groups can add value to their produce to increase the income of their cooperatives





communities across Zambia on agriculture, health, climate justice, as well as on issues relating to water, sanitation and hygiene (WASH), with women empowerment and youth economic development as cross-cutting themes. At present, their team has seven full-time staff and since mid-2023 Chedic Associates has also been registered in South Africa and has started conducting evaluations for non-profit organisations.

"After we were successful in the Access Agriculture competition in late 2021 and became part of ratives from various districts and trained them in leadership skills and organic farming."

Chedic Associates finds it easier to establish contracts with organisations than having to mobilise individual farmers. It charges 1,000 Zambian Kwacha (45 Euros) per day plus expenses for logistics. "We always start the day with a community needs assessment using Participatory Rural Appraisal tools, followed by gender-transformative learning to challenge harmful power relations and gender stereotypes. Only then,

several Access Agriculture videos are shown, after which we assess what people have learnt and what they plan to do with the knowledge. For every event, our clients receive value to their produce to increase the income of their cooperatives. So, Chedic Associates also screens farmer-to-farmer training videos on how to add value to maize.





a detailed report," says Edward. The professionally laid-out reports testify how the team has mastered data visualisation as part of monitoring and evaluation.

The team also sells training videos to individual farmers. "On request, we tailor-make video compilations on specific themes, such as livestock health, which we put on USB flash drive. We charge 20 Kwacha (0.9 Euro) per video, plus the expense for the flash drive. We also share compressed video files via WhatsApp and farmers pay us using mobile money transfer," says Edward. At times, the team hires out the smart projector to other organisations, for which it charges 500 Kwacha (23 Furos).

Women leaders are eager to learn how their groups can add

groundnuts, soya, and other crops by transforming them into food products to maximise returns. easily they can make crackers from peanut butter after extracting the oil. After putting into

After putting into practice what they learnt from the video, women realise that from a 50-kilogram bag of groundnuts, they can easily triple their profit

The women like to watch videos that were made in different countries, but are translated into <u>Bemba</u> and <u>Chichewa</u> local languages, as they easily relate to other rural women. "The women particularly appreciate the video <u>Making groundnut oil and snacks</u> as most are unaware of how

practice what they learnt from the video, women realise that from a 50-kilogram bag of groundnuts, they can easily triple their profit: from 300 Kwacha (13 Euros) to 900 Kwacha (40 Euros)," says Edward.

Besides food processing and storage, women are also eager to



rinary drugs, has a direct benefit to rural families as the food consumed is free from harmful chemicals and the money saved can be used for household purposes.

As Chedic Associates wants to support gender transformation, they often ask women to also session. They started to discuss more between themselves and the husband now also considers the knowledge, skills, and opinions of his wife. They understand that there are more benefits for the couple in working as equals, with each party bringing their own unique elements. In fact, they only decided to get into serious farming together after the intervention from the ERA team.

In Simwizi village in Southern Province, Edward and his team screened Access Agriculture videos on fish farming, as that was of particular interest to the community. The women attending were inspired and convinced that it was feasible. They formed a cooperative and, since then, have a thriving communal fish pond. The cooperative is so active that it even won the second prize at the recent Southern Province agricultural show exhibition. Inspired by the training video Village savings and loan associations, in early 2023 the cooperative also established a saving plan which enabled them to create a bank account for their loans and savings programme. It is very rare for a new rural cooperative to be so organised as to have a bank account in its name.

As a service provided to on-going projects, Chedic Associates also screens videos in schools, such as Linda High School, Highlands Secondary School, and Chaba Secondary School, all located in Livingstone District. Students are eager to learn about topics that allow them to earn some money, such as *Making*



Keeping farm animals and crops in good health through natural means, without having to spend money on agrochemicals or veterinary drugs, has a direct benefit to rural families

learn about managing and feeding chickens to increase egg production, and about how to take care of animals like sheep and goats. Keeping farm animals and crops in good health through natural means, without having to spend money on agrochemicals or vete-

bring their husbands along to attend the video shows, so they can learn together.

Mr and Mrs Kalumba from Kalaluka village, Southern Province, improved their relationship after a facilitated video



yoghurt at home, Making chilli powder, and Enriching porridge with baobab juice.

From 2021 to 2023, the team reached about 5,000 people, 30% were youth and 80% were women.

Merging their expertise in public health, community development, agroecology, and project management, Chedic Associates plans to integrate video-based learning in all its future proposals as an intrinsic part of its business model. "To further expand our business, we will also target health facilities. We will combine the Access Agriculture videos on the smart projector with videos on health that we will get from other sources," explains Edward.

Sharing their experiences with other ERAs across Africa as well as with agricultural advisory service providers and the larger development community is part of the strategy of Chedic Associates to learn and expand its business. Co-founder Innocent Chansa

therefore takes part in live dialogues organised by Access Agriculture, such as the one in 2022 on the importance of local languages in extension.

Asked about his advice to new ERAs, Edward has several takeaway messages:

- 1. Register your business as it helps to build up a reputation;
- 2. Establish a bank account for your enterprise to help you appear more professional to customers and vendors and build credibility and trust;

- Map all stakeholders as future clients, and keep regular communication with them;
- Get familiar with the basics of monitoring and evaluation as clients want to know about the changes triggered by the videos;
- 5. Be open to learning from communities as they are also experts in what they do.

"You should not impose anything, but use the videos to co-construct knowledge with the farmers," Edward concludes.

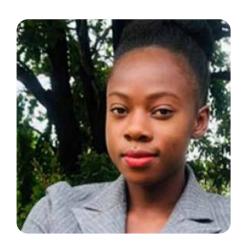


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A strong voice for women empowerment and child nutrition



Susanna Phiri

Growing up in a farming family in Chilanga, 20 kilometres south of Zambia's capital city, Lusaka, Susanna Phiri's first lesson from her mother was "pang'ono pang'ono ndi mtolo," which means "little by little makes a heap" in Chichewa language. This proverb made a lot of sense to a family like hers where all hands were needed to keep the field work going.

Susanna remembers her father making small farming tools for her and her siblings to "use" on the farm. "They were cute and we had a lot of fun, but we learnt at the same time that farming was a part of the fabric of our lives," says Susanna.

As a young leader today engaged in empowering rural women and advocating for better nutrition for children. Susanna

Susanna earned her bachelor's degree in education remotely from Chalimbana University and has recently obtained a diploma in agroecology. When she first started teaching in schools in Chilanga district, she found out that the children came to school only when there was food. When there was no food, they didn't want to come, because they were hungry. And even if they came, they were unable to concentrate on their studies. This proved to be a significant turning point for Susanna. She got increasingly involved in community initiatives with women and young people promoting capacity building relating to healthy and environmentally-friendly food systems.

While she was working with CYN-Zambia (Comprehensive Africa Agriculture Development

She loves facilitating the animated discussions and deliberations that take place after the video shows

still lives on her family farm and has been successfully growing maize, vegetables and legumes, while pursuing her other interests, such as teaching, training, networking, communication and graphic design.

Program Youth Network) in 2021, Susanna heard about Access Agriculture's call for young Entrepreneurs for Rural Access (ERAs) and applied for it. She was among the four ERA teams who were selected and equipped with digital skills and tools, including a smart projector containing Access Agriculture's entire library of farmer-to-farmer training videos, including 156 videos in <u>Chichewa/Nyanja</u> language, 104 in <u>Chitonga/Tonga</u> and 76 videos in <u>Bemba</u>. All the languages are spoken in and around Susanna's region.

"My first experience showing training videos with the projector was fascinating. For the first time I was in a position to give to our communities something that made them really happy, because they could get relevant information and simple solutions on farming issues in their own language," says Susanna. She loves facilitating the animated discussions and deliberations that take place after the video shows.

Susanna decided to do her initial video shows in rural churches. The keen interest and engagement of the church-goers gave her a lot of fulfilment. Although her initial clients did not pay for the screening of the videos, they were willing to cover her transport costs. So far, she hasn't

yet been very successful in landing contracts with organisations for such services. To make money, she loans her smart projector to governmental and non-governmental organisations at 350 Zambian Kwacha (15 Euros) per day.

As she has established contacts with national and local agricultural research and development organisations, thanks to the smart projector, Susanna has also benefitted indirectly to obtain contracts for her media-related work. In 2023, for instance she was asked by the ZARI (Zambia Agriculture Research Institute) to design all their social media posters and other communication material for its Field Day.

tion security in her community, she found her niche client base among the young mothers with children under the age of five who come to Mount Makulu Clinic in Chilanga district for check-ups. Here, she organises weekly video sessions to train women about how to process food to preserve its nutrients. From 2021 to 2023, Susanna trained 2,447 people, of whom 84% were women and 72% were younger than 35 years.

Susanna shares knowledge of how to provide a balanced diet to their children and how certain foods can easily be grown at home

As Susanna was concerned about children's food and nutri-



By screening relevant Access Agriculture videos. such Enriching porridge. Susanna shares knowledge of how to provide a balanced diet to their children and how certain foods can easily be grown at home. "We also raise awareness about agroecological practices and provide a space for information sharing between the vounger and the older women and amona different social classes. And through the videos we also share business ideas that women can

start within the confines of their homes," says Susanna.

After each training session, either Susanna, a local nutritionist or a nurse facilitates the discussion. Speaking about her experience at the clinic, she remarks: "It is really fulfilling what I do with the smart projector. We have



Some of the older women started remembering their own healthy, traditional diets while watching the videos and they resolved to reintroduce those practices in their homes so that their children and grandchildren would have local and healthy food instead of relying on processed food

formed a community of practice with the clinic's staff and have integrated the smart projector into their existing Information, Education and Communication Programme."

Now a much sought-after resource person at the clinic,

Susanna mentions a few examples of how the videos have benefitted the women. The video Making yoghurt at home has inspired some of the women to prepare yoghurt at home, as for many of them buying it from the market is a luxury. Some of them have started growing vegetables in buckets or sacks after watching the video Using sack mounds to grow vegetables, so that their children can have fresh salads and also the family can save money by not having to buy these from the market. A few women learnt to produce chillies in the off-season after they saw the video Making a chilli seedbed.

"So, now these women are growing vegetables and herbs easily at home, even if their yards are not big. But even for those who have relatively big farms, they have set up kitchen gardens to boost their household income during the off-season. After watching the video Conservation agriculture, a few have adopted the practice of using maize stalks to cover the soil on their farms to prevent soil erosion," says Susanna.

"What is most interesting is that some of the older women started remembering their own healthy, traditional diets while watching the videos and they resolved to reintroduce those practices in their homes so that their children and grandchildren would have local and healthy food instead of relying on processed food. Seeing all these changes in behaviour keeps me motivated to continue my work at the clinic."



Susanna has also co-founded various organisations, such as Future Fields, which involve children in gardening, and the 'Women Who Farm Africa' network, to empower women farmers through training and better access to information and technology.

Building on her ERA experience and knowledge of farming and sustainable agriculture, in 2023 Susanna launched her company, SophExté, with the smart projector being an integral part of it. She believes that having a registered company offers distinct advantages to reach out to organisations and receive payments for her services. "In five years, we should be well-established as a company that provides sophisticated extension services focused on sustainable agriculture." She plans to implement agroecological practices on her farm and showcase these through her company to help other farmers.

Despite major challenges she has faced as an ERA because of non-payment of dues from her clients, Susanna remains confident about the future. Her most important advice to the new ERAs is to have a great deal of empathy with farmers. "Do not expect that you show the videos today and that farmers will change their practices immediately."

Susanna encourages any new ERAs to be open-minded and be willing to go out of their comfort zone to do their work. For instance, they could go beyond the agricultural sector and reach out to the health sector, especially relating to nutrition. "There are many videos about nutrition, food safety and food processing on the Access Agriculture video platform that people need to know about."

She also advises ERAs to be creative about earning an income. They should believe in what they are doing and remain motivated. Inspiring them to spread their wings and find their unique place, she points out: "We have a chance to use the Access Agriculture videos to promote production and consumption of healthy and safe food, and we should contribute to this noble mission little by little for a better future."



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Helping farmers one video at a time



Zaali Nakalonga

Zaali Nakalonga has had a lifelong passion for agriculture, having grown up in Butute village of Milenge district, Zambia, with parents who are both farmers. While he was in secondary school, Zaali started training farmers from nearby cooperatives on good practices for rearing village chickens and broilers, such as making feed and ensuring the right temperature in the chicken coops.

Zaali was not charging the farmers anything for the sessions, but the interactions fanned his aspirations to continue to study to help his parents and others commercialise their farming enterprises, rather than just run their operations as a subsistence set-up. From 2017 to 2019, Zaali enrolled at the Natural Resources Development College where he

studied Agribusiness Management.

Not long after his studies, Zaali came across an advert from Access Agriculture on Facebook, calling for applications for young Entrepreneurs for Rural Access (ERAs) in Zambia. Being convinced that he met the requirements, he applied, went through the selection process, and was finally chosen as one of the recipients of a Digisoft smart projector.

After being trained in how to use the smart projector, Zaali's first experience showcasing Access Agriculture videos was in November 2021 at a Women in Agribusiness Summit in the capital city, Lusaka. Most of the women attending were farmers or connected to farmer outgrower schemes, so Zaali figured his participation fee was a good investment. During this meeting, he met the founder of Kalomo Grain Marketing (KGM) and Supreme Women Cooperative, a company with an outgrower scheme that processes cooking oil.

"I signed a contract with KGM to train their farmers with Access Agriculture videos to help them improve their cultivation skills and output," says Zaali. He showed various videos, such as Crop rotation with legumes, Harvesting and storing soya bean seed and Soya sowing density. Zaali





was blown away by the reception of the farmers. who were excited to see videos in Tonga and Bemba, their local languages, rather than seeing videos in a foreign language, or just having an extension agent explaining to them. Over a two month period, Zaali screened videos eight times reaching 800 farmers. It earned him 2,000 Zambian Kwacha (80 Euros).

Over time, Zaali has diversified his income streams. On the sidelines of video shows. Zaali has also sold organic fertilisers from Geoveda Lenders, a local company specialising in organic inputs for crops and livestock. Zaali signed a contract for a year with the company, with a 15% commission for each bottle of liquid organic fertiliser sold. In a good month, Zaali was earning about 2,000 Zambian Kwacha (80 Euros) from commissions.

In as much as Zaali makes money from his business model of showing videos to farmers through the smart projector, his true joy is to see farmers experi-

Zaali was blown away by the reception of the farmers. who were excited to see videos in Tonga and Bemba, their local languages, rather than seeing videos in a foreign language, or just having an extension agent explaining to them

ment with the practical information they have seen in the videos and improve their farm enterprises.

Zaali remembers a farmer in Kayange village, in Shibuyinji district in Central province, who had some sick animals. After he had explained the symptoms,



Zaali showed him and others the video <u>Calcium deficiency in dairy</u> <u>cows</u>. "The farmer then applied what he had seen in the video:

for food even during the brooding period. Having watched the videos on *Taking care of local chickens* and *Increasing production of local chickens*, the farmers started providing food and water to their birds and often clean the coops. These practices also reduce the risk from sickness. Something like Newcastle disease could spread like wildfire in a local community and kill all the poultry.

After each video show, Zaali engages the farmers by asking questions to gauge what they have learnt and what they would like to try out. When he revisits the same group later on, he starts by asking what practices they have tried from the last videos they watched.

Without the video intervention, the farmer would have likely lost some of his livestock

pounding eggshells into powder and giving this mixed with sugar to the animal. A few days later, he called me and explained that the animals were more responsive and getting better," says Zaali, before adding that "without the video intervention, the farmer would have likely lost some of his livestock."

A group of farmers, also from Kayanga village, never provided feed and water to their chickens, so the birds used to go far to look Being an ERA, however, is not without challenges. During the rainy season, for example, it can be difficult for some farmers to attend or to reach certain areas.

"Also, when there is a funeral in a village where you scheduled to screen videos, the shows must be cancelled as community members would not be available. If a video show must be postponed, we must inform the farmers in a timely fashion, instead of having farmers leave everything to come



to a show to then find out it was postponed." For Zaali, being an entrepreneur is also about being a problem solver, whether this involves looking at weather forecasts to plan shows or rescheduling when funerals take priority.

From 2021 to 2023, Zaali reached over 2,000 people with farmer-to-farmer learning videos. Of these, 60% were women and 55% were youth.

To learn to deal with challenges and see opportunities, Zaali greatly appreciates the mentorship and coaching that he received from Access Agriculture. "I have registered a company Poju Agri-Consultants, to train farmers with the Access Agriculture videos using the smart projector," says Zaali. Looking to the future, he wants to grow his company and set up an agriculture training institute where he can use the smart projector and videos to reach even more farmers, and also provide them with space to practice what they are learning from the videos.

Zaali is member of the Zambian Empowerment Hub for Entrepreneurship and Skills Training, where he often shares about entrepreneurship opportunities in the agriculture sector.

Reflecting on his own journey as an ERA, and on what encouragement and advice he could give to other ERAS, Zaali says: "Firstly, as ERAS we must be passionate about our work, and not just look at the financial bene-

fits, as those may not come from day one. Passion is what keeps us going, especially when we experience challenges. Otherwise, every challenge can lead us to quit. Secondly, we must learn that to benefit as ERAs we must look to the future. Sometimes networking leads to new opportunities that may pay off down the line."



Being an entrepreneur is also about being a problem solver, whether this involves looking at weather forecasts to plan shows or rescheduling when funerals take priority



Boosting a rural bio-input resource model



farmer-innovator, Abhishekam Vathala from Kalluru village in the Indian state of Andhra Pradesh, has come a long way. Today, he and his wife Jasmin Sree Rama are pioneering a rural bio-input resource centre (BRC) model, a one-stop shop for farming communities.

From a computer tutor to a

farmer, who had already established a vermicompost unit. However, like some of his peers, Abhishekam was initially more interested in a teaching career. He taught computer science on a part-time basis, while pursuing higher studies. After obtaining two Master's degrees – one in Telugu language and another in Education

Abhishekam Vathala



Jasmin Sree Rama

Smallholder farmers who want to shift from chemical-intensive to natural farming lack relevant knowledge and access to quality organic and bio-inputs

Since smallholder farmers who want to shift from chemical-intensive to natural farming lack relevant knowledge and access to quality organic and bio-inputs, the Indian government has recently launched the BRC initiative to facilitate the preparation and supply of bio-inputs, including bio-fertilisers and bio-pesticides, produced locally with available natural resources. The aim is to establish at least 10.000 BRCs across India to facilitate the adoption of natural farming by 10 million farmers.

Abhishekam became interested in natural farming thanks to his father, an enthusiastic organic

– he started working as a Telugu lecturer.

At the same time, inspired by his father, he started practicing organic farming on his land and took it up seriously after his father died from Covid. "This motivated me further to produce healthy food for our family and community without the use of synthetic chemicals. We also found that organic farming gave us better yield and profit, so I decided to quit my teaching job and devoted myself fully to organic farming," says Abhishekam.

In 2019, Abhishekam joined CSA (Centre for Sustainable Agricul-

ture), a non-governmental organisation in Hyderabad, Telangana. CSA supports the establishment of rural bio-enterprises that produce seeds, bio-fertilisers, bio-pesticides, compost, manure and soil and water-testing labs and then link these to farmers. "At CSA I learnt how to prepare bio-fertilisers and improve soil fertility. I also learnt to identify crop pests and prepare different herbal concoctions to control them," says Abhishekam.

In 2022, CSA supported Abhishekam and Jasmin to establish a BRC in Proddatur, YSR Kadapa district, under the name 'A I Bio Fertilizers' with automatic fermenters, a pulveriser, a soil testing machine and a machine to prepare 'leevamrutham.' a bio-fertiliser rich in microorganisms that is also used as a plant growth promoter. The BRC sells bio-fertilisers, botanical mixtures and beneficial microorganisms, such as Rhizobium, Azospirillum, Pseudomonas, Trichoderma, Beauveria, Verticillium and Metarhizium.

"We have conducted research on our products to achieve the best results. All the bio-inputs that Jasmin and I prepare are used on our farm and we also sell to farmers, who benefit by using them on their farms," says Abhishekam. "Our first intention is to revive damaged soils and reduce the cost of cultivation. We help farmers to completely abandon chemical fertiliser and pesticides to convert to natural farming."

The same year, just a few



months after having set up their BRC, Abhishekam was among 36 farmers across India, who received the 'Outgrow Kisan Pragati Awards' which recognises technology-led innovations in natural and regenerative farming. "I felt very proud that our innovative farming techniques were officially recognised. We have also received much appreciation from the farmers who use our products."

As he and Jasmin and their colleague, Bhairav Kumar, were working with farmer producer organisations on organic/natural farming and were eager to create more awareness, they applied as a team for the call for young Entrepreneurs for Rural Access (ERAs),

which Access Agriculture had launched in Andhra Pradesh and Telangana.

So, they were thrilled to be among the eight ERA teams selected to receive the projector. "The concept of sharing knowledge from different parts of the world on sustainable practices through videos motivated us and we realised the value of the smart projector as an effective tool to reach more farmers in a short period," explain Abhishekam and lasmin.

They have organised video screening sessions using the smart projector during regular farmer group meetings, self-help



women group discussions, village-level events and also during promotional campaigns when they set up small bio-input stalls on the streets. Thy used the screening sessions to advertise and sell their bio-input products.

Managing false smut of rice



For instance, during the training sessions with video shows on Managing false smut of rice, Managing the rice leaf folder and Managing bacterial leaf blight in rice, Abhishekam motivates the rice farmers to use the products prepared by him. "The farmers who bought from us got good results on their farm," says Abhishekam.

Abhishekam also screened the video <u>A participatory guarantee</u> <u>system</u> (PGS) for many farmers across several villages. PGS involves the active participation of producers and other stakeholders to ensure local produce is organic. Abhishekam has used these occasions to urge his audience to learn from the video regarding some of the conditions for obtaining a PGS certificate, such as the use of

organic fertilisers. This has boosted his sales of bio-inputs by 35%.

After watching the video <u>Better</u> <u>seed for green gram</u>, some farmers adapted the idea and treated their groundnut seed with Trichoderma viridi and Pseudomonas. Besides having better harvests, they made extra profit by reducing their expenditure.

bought four goats to expand her goat rearing business.

The team also use the smart projector when they are invited to give guest lectures on sustainable farming to college students. Besides showing Access Agriculture videos, they screen their own presentations on bio-input preparations. "We also show the videos"

l learnt how to prepare bio-fertilisers and improve soil fertility. I also learnt to identify crop pests and prepare different herbal concoctions to control them

Jayamma Viparapuram from Thallamapuram village, Andhra Pradesh, used to have very low vegetable yields, but learned about natural farming from the team. After watching the video *Taking care of okra*, she started growing okra and aubergine using the practices shown in the video. She made 20,000 Indian Rupees (220 Euros) profit, with which she

in schools as we believe children will effectively communicate the natural farming practices to their parents," says Jasmin.

In one year, the CSA team has reached over 600 participants (about 400 male and 210 female), including 120 participants below 15 years. Some of the popular videos include *Insect nets in seed*-



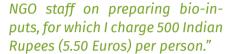
beds, Drip irrigation for tomato, Root and stem rot in groundnut, Managing aflatoxins in groundnuts during drying and storage, Managing aphids in beans and Organic biofertivegetables. lizer in liquid and solid form and Teaching agroecology in schools.

lasmin and Abhishekam were delighted to obtain a collateral-free loan from a government scheme to scale up their A J Bio Fertilizer BRC into a fully commercial venture. They will pay back the loan of 2.5 million Indian Rupees (over 27,500 Euros) from the profits they earn from selling their bio-fertilisers and bio-pesticides.

"Individual farmers need a lot of time if they want to make their own plant concoctions and soil applications. If they want to buy commercial organic inputs, these are either not available or they are expensive." Abhishekam says. "Farmers can reduce the cost of cultivation by buving bio-inputs from BRCs, such as ours, at a low cost."

lasmin and Abhishekam's products have reached more than 8,000 organic farmers across six districts in Andhra Pradesh and Telangana. By using their products. banana farmers were able to save 13,600 Indian Rupees (150 Euros) per hectare and rice farmers saved 32.000 Indian Rupees (350 Euros) per hectare. "We are also supplying our products in bulk quantities to two mini BRCs of CSA in Andhra Pradesh." Abhishekam comments. "I also screen videos and give training to farmers and







smart projector and the testimony of farmers who trust and use their bio-inputs have added

We have used the video shows to advertise and sell our bio-input products

Abhishekam and Jasmin plan to continue using the smart projector to train farmers on organic and natural farming practices, especially relating to seed storage, pest and disease management and kitchen gardening. They will also make use of it to promote their bio-inputs. On the business side, they are planning to brand and label their products and do online marketing to increase their sales.

to the credibility of Abhishekam and Jasmin, who have emerged as role models in their area for rural entrepreneurship. "It makes us happy to know that the production of the bio-inputs has not only become a source of income for us. but has also helped us to support the increasing number of farmers who are interested in moving towards organic and natural farming," they declare.

The video shows with the

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Reaping health and wealth benefits from nutri-gardens



Janaki Bobbili

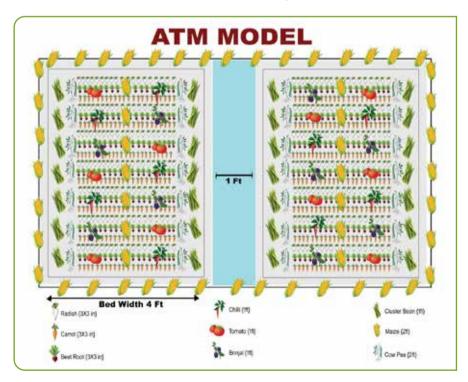
Janaki Bobbili from Veera-bhadrapuram village in Andhra Pradesh, India, is one of the champions of the nutri-garden initiative, which seeks to increase farmers' income, while enhancing the health and well-being of rural families through better access to diversified, nutritious food across seasons. The initiative is creating a powerful wave of change across rural India and has emerged as an effective tool for empowering rural women.

Despite improvements in food security in rural India, undernutrition, especially the deficiency of micronutrients, remains a big concern. Hence, in 2021 the Ministry for Women and Child Development launched the nutri-

garden initiative. It promotes well-planned kitchen gardens under the motto 'grow what you eat and eat what you grow.' The initiative encourages the cultivation of indigenous varieties of vegetables, fruits, herbs and spices, without the use of chemical inputs. It also promotes the recycling of kitchen waste into organic manure. As such, the initiative helps conserve precious agrobiodiversity and water.

However, there are a lot of differences in the way the nutrigarden initiative is implemented across the country, depending on the environment and farming traditions. For instance, the APCNF (Andhra Pradesh Community Managed Natural Farming) programme, which promotes farming in harmony with nature, introduced nutri-gardens under its ATM (Any Time Money) model.

The ATM model aims to attract rural youth into farming by promoting relay cropping of a variety of crops on the same plot, using natural farming methods. This ensures harvests at different times and a steady stream of income, starting from within a couple of weeks after sowing. "Before young women establish their nutri-gardens, we train them on every step along the way," says Janaki who has been actively involved in awareness campaigns and training programmes relating to the ATM model.



Ianaki knows well the challenges faced by women farmers as she comes from a farming family. After obtaining a Bachelor of Science degree in Chemistry, and keen to deepen her knowledge of farming techniques, she participated in a livelihood enterprise development programme, organised by Sabala, a local NGO.

Soon after, in 2016, Janaki joined Sabala to help form and train farmer producer organisations. As one of the resource organisations for the APCNF programme, Sabala focuses on natural farming, organic production and empowerment of vulnerable women.

Through multiple activities, including biodiversity fairs, Sabala also promotes local production, consumption and procurement of millets, a family of drought-resistant, nutrient-rich grains that are part of India's traditional food culture. Having been neglected for a long time, millets are gradually making a comeback.

In 2022, when Janaki heard about the Access Agriculture Young Entrepreneur Challenge Fund initiative for Andhra Pradesh and Telangana, she decided to apply, along with her colleagues Syamala Bobbili and Kommu "Sabala creates Eswara Rao. awareness among the rural women and local tribal youth on natural farming and agricultural biodiversity, so this motivated us to apply," Janaki recounts.

She was delighted when her team was selected as one of the

young Entrepreneurs for Rural Access (ERAs) in Andhra Pradesh. During a three-day training workshop, her team received the smart projector, containing the full library of Access Agriculture training videos. She felt especially honoured when Dr. P. Chandra Shekara. Director General of the National Institute of Agricultural Extension Management (MANAGE) told all the selected ERA teams: "With this magic box in your hands, you are now superheroes as you can convincingly show to



Through multiple activities, including biodiversity fairs, Sabala also promotes local production, consumption and procurement of millets, a family of drought-resistant, nutrient-rich grains that are part of India's traditional food culture



farmers the benefits of agroecology and natural farming."

lanaki and her team members realised the truth of this statement when they saw the enthusiasm of women farmers and tribal youths after showing them quality farmer-to-farmer the learning videos in the Telugu language. To empower women, Sabala has established a Millet Sisters' network with about 1.200 women farmers from 40 villages and a millet processing unit under the name 'Arogya Millets,' which trains its members to make value-added millet products. "The smart projector is like a weapon to build the capacity of all these members," Janaki says.



The Sabala ERA team has been screening relevant videos in many villages to promote improved practices on soil fertility, water conservation, plant health and organic composts. These include: Compost from rice straw, Coir pith, Managing mealybugs in vegetables, Managing the rice leaf folder and Killing fall armyworms naturally.

As integrated farming and nutri-gardens have been major thrusts of Sabala, other popular videos shown by the team include Intercropping maize with pigeon peas, Grow row by row, Making a good okra seeding, Taking care of okra, Staking tomato plants, Good handling of tomatoes, Storing fresh and dried tomatoes, and Drying and storing chillies. The video shows are always followed by group discussions on how to adapt the practices to their context.

The Sabala ERA team use the smart projector to raise awareness about the ATM model, which includes vegetables, flowers, millets, pulses and oilseeds. The farmers can choose what they want to grow on their plot, but they must select at least one variety from

harvest throughout the year, they earn money on a weekly basis. The farmers mostly sell their entire produce in their own villages and if there is any excess produce, we link them up with potential buyers from other districts," explains the Sabala team.

Sappala Prameela, a woman farmer from Kotanuvaripapem village, set up an ATM model farm with their help on a plot of 4,000 square metres with an investment of 9,600 Indian Rupees (106 Euros). She chose to grow 13 types of vegetables, 3 types of legumes and marigold flowers. Thanks to this, she earned a weekly income

With this magic box in your hands, you are now superheroes as you can convincingly show to farmers the benefits of agroecology and natural farming

each category recommended by the ATM model. Farmers are being encouraged to include a wide range of local vegetables, such as brinjal (aubergine), okra, tomato, chilli, onion, radish, carrot, sweet potato, various types of gourds, curry leaf, coriander and leafy vegetables, like spinach and fenugreek leaves. Even during very hot summers, the crops under the ATM model survive, ensuring food security.

"Farmers generally grow these crops on small plots of around 400 square metres and as they can of 3,500 Indian Rupees (38 Euros). In just four months, she earned 45,000 Indian Rupees (500 Euros). In addition, she saved money by not having to buy vegetables and her family was able to eat chemical-free, home-grown vegetables.

The ERA team also use the smart projector during visits of schoolchildren to raise awareness about food production and biodiversity.

Within one year after receiving the smart projector, Janaki and



Making food systems more resilient to climate change requires a holistic approach. In addition to promoting natural farming and nutri-gardens, Sabala plans to use the smart projector to raise awareness about the value of millet-based food and also use it to boost its own bio-resource centres and processing units for millet, jackfruit, groundnut and turmeric.

her colleagues screened videos to about 1,000 people, of whom 68% were women and 78% were youth.

To encourage members of farmer organisations to set up nutri-gardens, they also show their own videos and successful case studies from APCNF on natural farming. During the follow-up group discussions, Janaki - a practising farmer herself – convincingly motivates other farmers to adopt the new model. In August 2023, seeing her commitment and experience, Janaki was invited to join APCNF as a Cluster Activist, where she continues to promote natural farming.

Making food systems more resilient to climate change requires a holistic approach



Empowering rural women in mushroom entrepreneurship



Matsyaraju Vanthala

Matsyaraju Vanthala comes from a farming family in Paderu, a small town nestled in the lush green, picturesque Eastern Ghats mountain range in Andhra Pradesh, India. Most rural people there belong to tribal communities and have less than 1 hectare of land, growing Arabica coffee, rice, finger millets, pulses, horticultural crops and spices, such as black pepper and turmeric. Closely connected

After obtaining a Bachelor's degree in Arts, Matsyaraju taught for a while before joining the Adivasimitra Welfare Society. This local NGO provides technical advice and enables market access to more than 70 farmer producer organisations in 150 tribal villages. Unlike many rural youths in Paderu, who do not see a future in agriculture and migrate to bigger cities, Matsyaraju farms his own

We want to support the tribal people in our area with relevant digital content on natural farming so that young farmers can learn about new practices

with the forests and the hills, these communities have a rich cultural heritage and a strong tradition of eco-friendly farming.



piece of land and assists the NGO in setting up model farms and building capacities of women and youth in mushroom cultivation, floriculture and nursery management.

At Adivasimitra, Matsyaraju came to know about the Andhra Pradesh Community Managed Natural Farming (APCNF) initiative. He received training in natural farming, which relies on locally available products like cow dung and urine, intercropping and mulching to improve soil fertility and crop resilience to climate change. In Andhra Pradesh, about

800,000 smallholders have taken up natural farming.

In 2022, when Access Agriculture sent out a call for young Entrepreneurs for Rural Access (ERAs) in Andhra Pradesh and Telangana, Matsyaraju was eager to participate. "We want to support the tribal people in our area with relevant diaital content on natural farming so that young farmers can learn about new practices," Matsyaraju says. He along with his team members, Salla Venkata Lakshmi and Pangi Lakshmi who brought in complementary competencies, such as community mobilisation and facilitation skills, applied for the FRA call.

Based on their commitment and experience, they were one of the eight teams who were selected for piloting Access Agriculture's entrepreneurship model in Andhra Pradesh and Telangana. In January 2023, they received a smart projector kit as well as training in basic skills to facilitate video shows in villages using the smart projector and how to collect data on viewings.

"We were thrilled to have the smart projector as we had already designed a programme to carry out village-level video shows to create awareness on natural farming, and share knowledge and solutions relating to farming challenges in our area," Matsyaraju says. "We were looking for funds to purchase a projector, a public address (PA) system and develop content. So, we were excited to receive the smart

projector as it integrates all the solutions into one single package to meet all our campaign and training needs."

The smart projector has been very useful to build the capacities of tribal women and youth because it contains more than 120 farmer learning videos in <u>Telugu</u> language. "We have strong links with grassroots organisations and have access to village-level

Thanks to the smart projector, the team was able to increase the number of participants and the number of training days and add value to their training programmes by screening relevant videos.

Matsyaraju's clients are mostly farmers and the young men and women participating in the Livelihood Enhancement Development Programme. This nation-wide initiative from

Because of the huge demand for mushrooms in neighbouring districts, many people in the tribal areas are eager to learn about mushroom cultivation, which can help them get a decent livelihood with little investment and without putting pressure on the wild edible mushrooms in their forests

group representatives. We regularly run camps and programmes for youth and women on agri-entrepreneurship," Matsyaraju says.

the National Bank for Agriculture and Rural Development builds skills of self-help groups covering entire value chains.









I felt that training was far more effective with video than explaining verbally

The ERA team took the opportunity of the largest festival of the tribal communities in Andhra Pradesh, called 'Sri Modakondamma Jatara,' to organise a series of video shows. This effectively drew the attention of many tribal farmers from different regions.

In 2023, Matsyaraju and his team members trained 555 tribal people (240 male and 315 female). Some of the most popular Access Agriculture videos shown on demand are those relating to Coffee cultivation, Drip irrigation for tomato, Grow row by row, Mulch for a better soil and crop, Making a vermicompost bed, Organic biofertilizer in liquid and solid form and Growing azolla for feed.

Giving examples of how the videos have benefited farmers, Matsyaraju describes the happiness expressed by coffee growers, when they watched the video Coffee: picking & drying. "The growers realised that even though they had been familiar with coffee cultivation from their childhood, thanks to the video, they were able to identify their mistake and learnt not to pick the ripe and unripe beans together which reduced the quality and price of the coffee," Matsyaraju says.

The Eastern Ghats region is known for its rich biodiversity, including the wide range of mushrooms that can be found in the soil of this region. Because of the huge demand for mushrooms

in neighbouring districts, many people in the tribal areas are eager to learn about mushroom cultivation, which can help them get a decent livelihood with little investment and without putting pressure on the wild edible mushrooms in their forests. Oyster mushrooms are especially popular and consumed across India because they are nutritious and tasty.

The ERA team has been supporting the women and youths of these communities to produce and market mushroom as a livelihood opportunity. "When I got the smart projector and saw the video Growing oyster mushrooms, I felt that training was far more effective with video than explaining verbally," Matsyaraju says. Several farmers have been inspired by watching the video. For instance, two young women from Paderu, Sumithra Kumari and K. Durga, set up an oyster mushroom production business.

"When they saw in that video

young women from Africa successfully cultivating mushrooms by using their available local resources with very little investment, they were confident that they could also do it," recounts Matsyaraju. With their first harvest, these two women produced 18 kilograms of mushrooms and made a profit of 5,400 Indian Rupees (60 Euros).

They are using their earnings to take care of the nutritional requirements of their families and re-invest some of it to expand their enterprise. They have not only carved a niche business for themselves but are also inspiring and encouraging other young farmers in the tribal communities to take up the profitable mushroom business and improve their livelihoods.

As people learn about the multiple nutritional and health benefits of mushrooms and the demand for it is increasing, Matsyaraju and his team continue to empower women and youths by providing training and access to mushroom spawn. They have helped the tribal community to set up 42 such mushroom units. One of the trained youths earns 18,000 Indian Rupees (200 Euros) every month by selling mushrooms to nearby hotels.

"I want to reach more farmers and more villages with the smart projector so that I can bring natural farming to hundreds of youths and help develop mushroom cultivation together with marketing facilities so as to



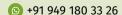
Matsyaraju and his team continue to empower women and youths by providing training and technical support. They have helped the tribal community to set up 42 such mushroom units

make them prosperous," Matsyaraju says.

His advice to young ERAs is to continue screening farmer-tofarmer training videos regularly to

increase not only the knowledge of the farmers, but also their own understanding, regarding all aspects of agroecology and organic farming.

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The changemakers

This book showcases just a few of the many Entrepreneurs for Rural Access (ERAs). These dynamic young people have taught us a lot about how to create and sustain youth-led extension systems that promote agroecology.

Some ERAs have been highly successful. while others have struggled or abandoned the idea of working as private extension service providers. This is the reality. Some stopped screening videos because they decided to go back to college or accept a promising job offer. A few struggled to establish a client base, some because of a lack of money, or because of political unrest. That being said, out of the 242 young entrepreneurs that Access Agriculture helped to establish in 17 countries across Africa and India from 2019 onwards, 208 or 86% are still active as of early 2024.

Some entrepreneurs work as individuals while others work in teams. 42% of the active ERAs are women. We purposefully selected young women entrepreneurs and coached all the ERAs on gender strategies, resulting in an audience of 62% women. Depending on the context, videos were screened to single sex or mixed groups. One ERA team specifically asked rural women to also bring their husbands along and discussed gender issues during video shows.

Not enough development initiatives target youth, and it is often said that young people are not interested in agriculture, the stories in this book reveal that young people can and do inspire each other. Over three years, the ERA teams presented here screened agricultural training videos to nearly 200,000 people, of whom 60% were below the age of 35. The videos inspired youth, women and men farmers in many different ways, resulting in changes in how they engage in their local food systems.

experienced farmers featured in the videos about how to grow healthy food free from chemicals.

If agroecology is to gain ground, young people must be educated and inspired. Some of the Access Agriculture videos focus on institutional innovations, such as how to embed agroecology in schools. After watching a video on this

If agroecology is to gain ground, young people must be educated and inspired

When we started documenting the ERAs' experiences, we had not imagined that more than half of them would earn money by screening videos in schools, universities and TVFTs (Technical and Vocational Education and Training). Government policies play an important role in stimulating demand for ERA services. In Kenya and Uganda, for instance, agriculture is part of the national curriculum and schools are encouraged to establish school food gardens. However, many teachers don't know how to teach this, hence giving opportunities to ERAs. Teachers and school children alike love learning from

topic that was made in Peru, some schools in Kenya began to use drawing, singing and poetry to teach the children about healthy food. The pupils began to see agriculture as a career rather than as an unskilled occupation with no prospects.

Over three years, with modest financial support during the start-up phase and coaching provided by Access Agriculture, most ERA teams organised between 100 and 200 shows. While a few ERAs reached less than 1,000 people and some more than 10,000, most young entrepreneurs trained around 3,200

people using the smart projector. More important than simply the number of people reached, the ERAs often trained rural women with limited mobility and literacy. know. For instance, in one of Uganda's largest refugee settlements, Simon Adriko Negro shows the videos in French for refugees from the Democratic Republic of Congo

products, but that we come with new ideas, they open up."

Most young entrepreneurs trained around 3,200 people using the smart projector

They also engaged with youth who have typically been deprived of training opportunities. Some ERA teams also screened videos in refugee settlements and rural clinics, where people generally lack learning opportunities about healthy food and nutrition. Supplied with a gold mine of relevant training videos that merge scientific with farmers' knowledge, ERAs have been able to cater to the needs of their diverse target audiences.

The videos feature experienced agroecological practitioners from many countries across the Global South. This offers great scope for public extension services to team up with ERAs to share knowledge on agroecology and create demand for more training.

Upon demand Access Agriculture has translated the videos into more than 100 languages. These multiple language versions have also allowed ERAs to show videos in languages that they did not

and in Arabic for refugees from South Sudan. For the farmers of the host communities, who live alongside the refugees, he shows videos in the local Lugbara language.

Travel is difficult in many remote areas, so in 2023 Access Agriculture established a partnership with World Bicycle Relief, a social enterprise that donates and sells bicycles in sub-Saharan Africa. In one pilot, five ERAs in Uganda have already received a sturdy Buffalo bicycle, designed for off-road travel.

The biggest challenge for the ERAs, is that they often struggle to be taken seriously by elders in rural communities. Villagers often mistrust outsiders and think that these young service providers are there to sell them something. Screening farmer-to-farmer learning videos, which are free from logos and product placements, has opened up people's minds. As one ERA said: "Once farmers realise that we are not there to just sell

The ERAs often win respect through the quality of the videos and by showing how the advice from other farmers can improve livelihoods. After each show, the real work starts when ERAs explore with their audience how these ideas can be put into practice, using local knowledge and resources. By watching the videos, many people began to revalue their own indigenous knowledge and appreciate the importance of traditional crops in the face of climate change.

At first, many ERAs did not ask farmers to pay for their service, because it is hard to sell something if people don't know what you have to offer. Also, in some cases farmers had become used to receiving money to attend training events organised by projects. Often though, once farmers have watched some of the videos in their local language, they are willing to pay to attend shows and to get personal copies of the videos.

To allow young people to gain confidence and to establish demand, it is crucial to support the initial costs of the ERAs to organise village video shows. Some projects provided stipends for the first 20 shows while others paid the ERAs by the number of farmers reached. This allowed the ERAs to build up a client base for their video screening service.

The positive feedback that the ERAs receive from their audiences fuels their commitment; their confidence grows with each video show. Becoming respected community members has been as important as the money they earn from screening videos, hiring-out the smart projector, or distributing videos to farmers on SD cards, USB sticks or via WhatsApp.

NGOs. They deliver development services and are keen to generate additional revenues to help sustain their organisational work. ERAs in Egypt have applied the learnings from the videos to create new services, such as providing farmers' access to weather forecasts and inputs for soil regeneration or local feed production. The videos have also inspired ERAs

wered Digisoft smart projector with quality learning videos in local languages is a powerful tool that allows ERAs to screen videos on topics requested by their clients and their audiences, representing demand-led extension and peer-to-peer learning at its best. What makes the video-mediated learning approach stand out from other extension methods. is that the Access Agriculture videos not only trigger behavioural change towards agroecological transformation, but that they also inspire women and youth to start new income-generating activities contributing to healthier and more resilient food systems that can soften the impacts of drought, market shocks and dietary changes.

By watching the videos, many people began to revalue their own indigenous knowledge and appreciate the importance of traditional crops in the face of climate change

All ERAs have developed a unique pricing system for their advisory services. Some provide free services for certain target groups. For instance, one ERA team who are members of a youth club in Malawi decided to organise one free video show per month for other youth clubs in their district. ERAs who run their own enterprise in the food sector may also screen videos for free, as they see it as a means to expand their market for their other products or services. such as selling biological inputs or equipment that farmers ask for.

Some ERAs are social entrepreneurs and manage their own to write more innovative project proposals with clear ideas to scale agroecology.

Although the majority of ERAs have at some stage charged small admission fees, most ERAs prefer to work directly with farmer organisations, local NGOs or projects. This usually gives them longerterm contracts, requires less time to mobilise farmers, and avoids the hassle of collecting individual fees, and thereby reduces the transaction costs for the ERAs.

All ERAs take great pride in inspiring farmers, in particular women and youth. The solar-po-

The video library is like a pre-incubation phase in any traditional entrepreneurship incubation programme, offering a wide range of ideas to inspire youth and women to set up new micro enterprises or provide needed services. Young people have good ideas and the videos help them communicate this better to their audience. Farmers need to hear and see from their peers to believe they are able to do this. Thanks to the local languages used in the videos, extra motivation is added. By having access to these relevant training tools, the ERAs quickly gain the trust of local communities.

As the ERAs screen videos, they listen to farmers' aspirations.

Women and youth prefer topics that do not require land and high upfront investment costs, such as growing and processing vegetables, rearing chickens, goats and sheep. Martha Kyokuhaire, a young graduate from Makerere University in Uganda, was asked by farmers in various villages to help vaccinate their chickens against Newcastle disease, after she had screened a video on that topic. Without any prior experience, Martha successfully organised several vaccination campaigns, which is no mean feat.

cheap, locally-produced animal feed and fodder has risen sharply in many countries. In Egypt, where access to fertile land is limited, Ahmed Hamdi became an expert in azolla. This small aquatic fern fixes nitrogen from the air and is rich in protein. By setting up small ponds on marginal land, and even on rooftops, farmers started to grow their own animal feed.

Also in Egypt, Mariana Zarif and her uncle started producing bio-fertilisers and compost. They then opened a shop to provide and increasing farmers' profits. In India, ERAs helped farmers access mushroom spawn, seed, bio-fertilisers and bio-pesticides.

In Mali and Malawi, ERAs combined video screenings with the sales of fingerlings and equipment to install fishponds on farms, while others have been selling tree saplings. Each of the ERAs featured in this book basically runs a business that matches farmers' needs with their personal passion, fulfilling the vision of Access Agriculture to have young people as change agents in promoting agroecology through farmer-to-farmer learning videos.

Besides screening videos. several ERAs also provided social and environmental services. Maureen Maina works for a Kenyan NGO in a training centre with homeless, abandoned and vulnerable children, rescued from the streets of Nairobi. She uses the videos to train these youngsters on soil health and conserving seed of traditional crop varieties in a seed bank.

Inspired by the Access Agriculture videos, Sylvia Wangui helped rural women to solar-dry and package mango, kale and leafy vegetables. She also helped establish a participatory guarantee system (PGS) for local marketing. In Uganda and Kenya, ERAs promoted traditional food at farmers' markets as a way to sensitise local consumers to the

ERAs have responded to farmers' needs in various ways, either in providing access to farm inputs, in aggregating produce, processing food and even in creating local market outlets for agroecological production of inputs, feed and food

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For instance, with soaring prices for feed, the demand for

whatever farmers needed to transition towards agroecological farming, such as trays for hydroponic fodder production and nitrogen-fixing bacteria to inoculate legumes in their crop rotation. Hesham Ismael promoted soil regeneration using vermiculture and helped farmers access these red wrigglers, thereby drastically decreasing fertiliser use

importance of eating healthy, local food.

Young people are creative. Combining farmer training videos with videos on health, nutrition and environmental issues was a strategy used by several ERAs. In Malawi, Brian Anafi has been selling home-made sausages and groundnut oil from his small shop. Next door, he installed a video hall where he combines Access

unique model of young digitally equipped extension and advisory service providers, ERAs need to be linked to as many relevant clients and stakeholders as possible, including youth clubs, women associations and agroecology movements. Having a relationship with a government extension service is a plus and can help open doors to other clients, as Lilian Sambu has shown in Tanzania

our videos have shown how youth can help to mainstream agroecology in an effective and cost-effective way. Celebrating these young leaders, exchanging their experiences, and supporting them will help to make food systems future proof.

We hope that having read this book, you feel inspired to support these entrepreneurs to fly their flag and promote agroecology. These young changemakers fully deserve it.

The skills of ERAs to think outside the box of conventional development work combined with our videos have shown how youth can help to mainstream agroecology in an effective and cost-effective way

Agriculture videos with showing football matches. The video hall helped to attract more customers to his shop.

In Benin, Cédric Agbessi established a farmer cooperative to grow organic vegetables. Besides processing tomatoes into concentrate and juice, the members also make organic soaps and other cosmetics from cucumbers and carrots that were rejected by the market.

To sustain and expand this

While all ERAs are active on social media to market their services, because of their young age many are not aware of the institutional landscape, be it in the agricultural, education or health sectors. At Access Agriculture, our ERA coaching team has helped to map stakeholders and to promote the work of the ERAs so that they can build their businesses.

The skills of ERAs to think outside the box of conventional development work combined with



If agroecology is to gain ground, young people must be educated and inspired

Young Changemakers celebrates the passion, creativity and motivation of youth in Africa and India to strengthen their local food systems by becoming private extension and advisory service providers. Equipped with a solar-powered smart projector, they bring knowledge on agroecology by showing farmer-to-farmer learning videos in local languages to farmers, women and youth in particular, often in remote areas.

Referred to as Entrepreneurs for Rural Access, these young change-makers have inspired tens of thousands of other young people. Each of the 42 cases presented in this book provides a unique learning experience about agri-entrepreneurship. Besides screening videos, many of these entrepreneurs have

produced and enabled access to agroecological farm inputs, developed food processing ventures, or created local market outlets.

Their skills to think outside the box of conventional development work, combined with Access Agriculture's rich library of quality videos, have shown how youth can help mainstream agroecology in an effective and cost-effective way.

