



STRENGTHENING AFRICAN FOOD SYSTEMS THROUGH TECHNOLOGY BROKERAGE

Annual Report
2021-2022





Brown Wheat field day in Jigawa, Nigeria

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High Iron Bean varieties being deployed by TAAT



Strengthening African food systems through technology brokerage A 2021/2022 TAAT Annual Report

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Front Cover Photo: A visit to the TAAT Fall Armyworm demonstration site in Lusaka, Zambia

Foreword



Dr. Chrys Akem
Programme Coordinator

I am happy to report our progress with the Technologies for African Agricultural Transformation (TAAT) programme across the African continent. The Report highlights recent efforts to engage with Governments to ensure the best technologies and agricultural practices that optimise yields are deployed to thousands of beneficiaries. Over the past three years, the TAAT ecosystem of partners has been working hard to deploy technologies and innovations, which are the products of leading research institutions, within countries. One of our key priorities has been to engage with our National Agricultural Research and Extension Systems (NARES) and other government partners to ensure that our work is aligned with their priorities and that our solutions are integrated into national development plans. Our engagements have focused on: (i) introducing new seed varieties that are more resilient to pests and diseases and have higher yields, (ii) providing training and capacity building for farmers, extension workers, and other stakeholders on the use of these technologies, (iii) establishing partnerships with key stakeholders, including governments, NGOs, private sector actors, and research institutions and (iv) ensuring that mechanisms that foster continuous discussions and feedback are in place. Through these efforts, we have significantly contributed to putting countries on a

pathway to transformation. We in TAAT know we cannot do it all. Our role is to ensure countries are given access to the best and most modern technologies and agronomy advice produced by leading research institutions. Strengthening these linkages remains the core of TAAT.

The TAAT Programme Management Unit (PMU) continues to play a pivotal role in providing strategic direction and leadership to the overall TAAT programme, ensuring that the needed infrastructure to oversee the programme's implementation is in place. It also ensures that interventions and monitoring, support the programme's objectives, financial and accountability mechanisms are deployed, and opportunities are made available to leverage partnerships and resources to scale up interventions. Our work on the ground is the pillar of our success. The PMU works closely with the TAAT Clearinghouse, which is important in facilitating country engagement and linking proven agricultural technologies to national investments. The Clearinghouse collects and shares information on successful agricultural practices deployed through the TAAT programme and identifies priority areas for investment for scaling up interventions. By strengthening these linkages with countries and ensuring proven technologies are embedded into government priorities, TAAT provides a sustainable approach to agricultural development in Africa.

The TAAT team remains committed to continuing our work in scaling up the use of these technologies and innovations and ensuring their sustainability and impact. We will continue to collaborate closely with our partners and stakeholders to identify and address any challenges that occur along the way. We will continue to invest in awareness campaigns to encourage adoption of new technologies among farmers and other stakeholders. Success can only be achieved by working together with governments, who are the leaders in making lasting improvements to agricultural productivity and sustainability in the continent.

This report highlights the programme's achievements and success stories of 2021 and 2022.

Enjoy browsing through it!

Dr. Chrys Akem

TECHNOLOGIES BEING DEPLOYED AT SCALE



Rice

- High-yielding, Climate-Smart, Consumer-preferred Rice Varieties and Hybrids
- Good Agricultural Practices and RiceAdvice
- ASI Thresher / GEM Parboiler/ E-Registration



Maize

- Elite Water Efficient Maize for Africa Varieties (WEMA)
- Optimal Maize Planting Density
- Efficient Pest, Disease, Post-harvest and Weed Management
- Mechanization of Farming Operations



Sorghum & Millet

- High-yielding, Nutrient-dense, and Improved Varieties
- Improved Dual-purpose Varieties with Good-quality Flour and High Biomass Production
- Improved Varieties with High-micronutrient Content and Excellent



Wheat

- Heat-tolerant, Improved Varieties with High Grain Yield (4-7 tons per ha) and High Grain Quality (13-16% protein)
- Good Agricultural Practices
- Seed System Innovations to fast track Testing and Release of Improved Varieties
- Local and Low-cost Technologies for Mechanised and Irrigated Production



Cassava

- Improved, High-yielding and Nutrient-dense (pro-Vitamin A) Varieties
- Rapid Propagation of Virus-free Planting Materials
- Good Agricultural Technology Practices (GATP) and ICT for Value Chain Actors and Market Linkage
- Mechanized Processing/ Mechanical Drying and Mobile Processing Systems



High-Iron Beans

- High-yielding Bean Varieties rich in Iron and Zinc.
- Good Agricultural Practices for Beans: Seed Dressers, Cropping Systems, Bean Threshers, Solar bubble driers, Hermetic storage.
- Post-harvest Processing of High Iron Bean Products (Precooked Beans and Bean Flour)



OFSP

- 92 Nutritious, High-yielding and Climate-resilient varieties
- Seed Multiplication Systems and Businesses
- Post-harvest Management and Value Addition Technologies
- OFSP Puree Processing and New Storage Technologies



Soybean

- Improved, resilient and high-yielding soybean varieties.
- NoduMax for enhanced soybean production
- Good Agricultural Practice (land preparation, planting, fertilisation, irrigation, weed control, disease, and pest control, harvesting, and post-harvest management)
- Double density and mechanisation technologies



Fish

- Fast-growing Disease-resistant Seeds and Improved Rearing Systems.
- In-Pond Raceway System/ Cage Culture System/ Recirculation, Flow through Techniques
- Raised Pond Technology and Better Management Practices (BMPs)
- Quality Low-cost Feed and Management Techniques
- Improved Post-harvest Technologies and Product Development



Livestock

- Improved Dual-purpose Breeds for Meat and Egg Production
- Poultry Mother Brooder Units and High-Quality Cassava Peels Mash
- Thermos table Newcastle Disease and Small Ruminants PPR vaccine
- Improved Forages, Feed Supplements and Better Use of Crop Residues for Fattening



Vegetables

- Improved vegetable varieties, including high beta-carotene and lycopene content tomato
- Disease-resistant, high-yielding, consumer-preferred pepper

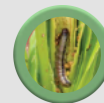


Banana and plantain

- High-yielding and nutrient-dense (pro-Vitamin A) banana and plantain varieties
- Rapid propagation of virus-free planting materials (Vitroplants)

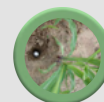
ENABLING INTERVENTIONS

Pest Management



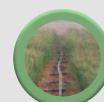
- Seed Treatment Chemical - TM Fortenza Duo
- Five Conventional Chemical Treatments (Spray Formulations)
- Commercial Formulation of Bt
- Two Commercial Formulations of Neem
- AgriX365 (a plant-based commercial product consisting mainly of vegetable oils)

Soil Fertility Management



- Balanced fertilizer recommendation through soil testing
- Integrated Soil Fertility Management
- Fertilizer Deep Placement (FDP) and Microdosing (MD)
- ICT-based Linkage of Farmers to Agro-input Dealers

Water Management



- Irrigation Water Development and Application
- Irrigation Scheduling
- In-Situ soil moisture conservation techniques



Wheat field ready for harvest in Jigawa, Nigeria



TAAT's team of experts arriving for the Dakar 2 Feed Africa Conference

About TAAT

The Technologies for African Agricultural Transformation (TAAT) programme was launched in 2018. It is structured around four key action pillars which are: scaling up proven technologies, enabling policy environment, expanding access to finance, and building capacity and partnerships. Over the past four years of implementation, the programme has made significant strides in achieving its objectives and has facilitated the deployment of improved crop varieties, irrigation systems, and agribusiness models, among others.

The TAAT programme has a unique implementation structure designed to ensure effective and efficient deployment of agricultural technologies at scale. The programme is implemented through a partnership-based model that leverages the strengths and expertise of various stakeholders, including governments, private sector actors, research institutions, and development partners. At the national level, TAAT works with the NARES, who serve as the primary vehicle for deploying proven agricultural technologies. NARES institutions work with extension workers, farmer organisations, and private sector actors to identify and promote the adoption of agricultural technologies suited to local agro-ecological conditions. At the regional level, the programme is implemented through a Regional Technology Delivery Infrastructure

(RTDI), which provides technical and financial support to NARES institutions. RTDI also fosters linkages between NARS, private sector actors, and development partners to enhance the adoption and scaling up of agricultural technologies.

The programme also leverages the expertise of the International Agricultural Research Centers (IARCs) and other development partners to provide technical support and advisory services to NARES and RTDI institutions. These partnerships enable the programme to access and deploy the latest agricultural technologies and innovations.

TAAT's implementation structure ensures a coordinated and collaborative approach to deploying agricultural technologies, which is critical to achieving the programme's objectives of transforming African agriculture. As of September 2021, TAAT had established a footprint and mechanism for linking the best agricultural solutions to farmers and continues promoting the adoption and scaling of proven agricultural technologies in Africa. The program's success is attributed to its bottom-up approach, which involves engaging with farmers, farmer organizations, and other key stakeholders, as well as its partnerships with national and international institutions.

Moving into TAAT phase 2 (TAAT 2), the African Development Bank (AfDB) launched the African Emergency Food Production Facility (AEFPF) project to support the implementation of the African Union's Comprehensive Africa Agriculture Development Programme (CAADP). The project aims to enhance the resilience of African agriculture and food systems in the face of emergencies, such as droughts, floods, and pandemics, in an accelerated manner. It has also been necessitated by shortages in some key imported commodities due to disruptions caused by the ongoing Ukraine-Russian conflict. TAAT 2 will continue what has been done in phase 1 and will provide accelerated support to governments and their smallholder farmers, agro-pastoralists, and rural communities to help them build resilient farming systems.



MEL visit to TAAT Rice site in Dabakala, Cote d'Ivoire

Monitoring and Evaluation: Key output indicators

Number of Beneficiaries reached

In 2021, TAAT activities reached 5,329,753 beneficiaries (Table 1). The impact of the Covid-19 pandemic slowed down TAAT's deployment thus resulting in fewer field activities and beneficiaries reached when compared to previous years. TAAT activities were accelerated in the last two quarters of 2021 as vaccination efforts recorded increased uptake across different African countries. From mid-year 2018 to September 2021 at the aggregate level, the programme had cumulatively reached 24,910,363 (62.3%) out of 40,000,000 targeted beneficiaries through accelerated dissemination and promotional campaigns of proven technologies and high quality seeds, improved livestock breeds and fingerlings, clean planting materials from cassava cuttings and Orange Fleshed Sweet Potato vines.

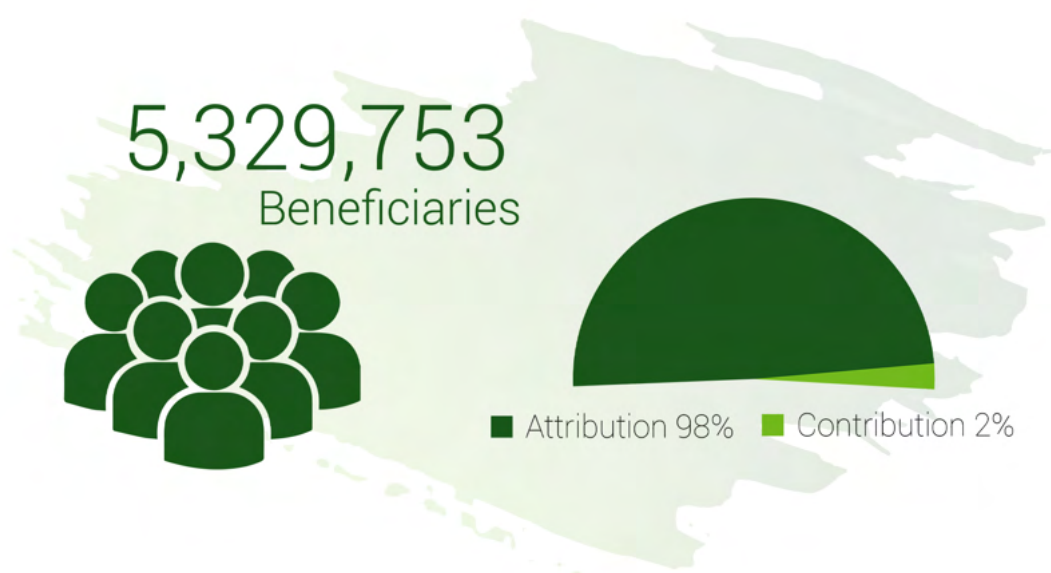


Table 1: Benefecieries reached in 2021

	Aquaculture	Cassava	Youth	HIB	Maize	Sweet Potato	Rice	Sorghum and Millet	Soil and Fertility	Capacity Building and Technology Outreach	Totals
Attribution	6,397	1,129,571	87,029	20,696	347,052	123,059	2,973,685	293,089	3,544	219,945	5,204,067
Contribution	10,518									115,168	125,686
Total	16,915	1,129,571	87,029	20,696	347,052	123,059	2,973,685	293,089	3,544	335,113	5,329,753

Volume of seeds produced and disseminated

One way in which TAAT helps countries build pathways to resilience is by strengthening the seed system. TAAT works closely with partners to ensure farmers have timely access to high-quality seeds, which are essential for increasing crop yields and securing food and nutrition. By providing support mechanisms and leveraging its network, TAAT enables the dissemination of improved seed technologies to countries, thereby enhancing agricultural productivity and contributing to economic development. Through the technical expertise of TAAT, our value chain experts assist governments to ensure that production of seed is only of the highest-quality and modern seed varieties. Seed system development in TAAT is a collaborative effort between TAAT commodity Compacts, contracted seed companies, NARES, and strategically identified development partners.

TAAT also collaborates with partners to establish a conducive ecosystem that enables farmers to readily acquire high-quality seeds, thereby boosting crop yields, improving food and nutrition security, and fostering sustainable development. This necessitates the deployment of a supportive framework throughout the seed system, encompassing policy and governmental levels, to facilitate the effective deployment of cutting-edge seed technologies in various countries. TAAT has

expedited this focus to ensure countries are supported to accelerate seed procurement and dissemination. In 2021 TAAT Compacts worked with governments and national partners to produce the following:

- For the cereals (Table 2): 2,831.4 MT of Foundation seeds, 9,522.1 MT of basic seeds, 191,947.4 MT of certified seeds, 8,873.2 MT for Quality-Declared Seeds, and 2 MT for Hybrid seeds.
- For Fodder and forage seed distributed: 300 kg of fodder seed, 750kg of Dual-purpose seed (sorghum, cowpea, groundnut), 25,000 legume tree seedlings, and 81,000 Brachiaria Splits.
- For Aquaculture fingerling production: 94,920,360 Tilapia fingerlings, 64,403,596 catfish fingerlings totaling 159,323,955 fingerlings that had been disseminated to fish farmers.
- For Roots and tubers: 81,315 bundles of cassava (500 bundles, each with 50 stems are required to plant 1 ha), 20,328,750 foundation cassava cuttings managed by farmers, and 47,065 cassava breeder Plantlets produced using SAH technology. Orange-Fleshed Sweet Potato produced 32,995,950 potato vine cuttings.



Certified Soyabean seed storage in Lusaka, Zambia

Table 2: Volume of seed produced and disseminated

Compact	Foundation Seed	Basic Seed	Certified Seed	Quality Declared Seed (QDS)	Aquaculture Fingerlings	Foundation Seed Stems	Foundation Seed (Managed by Farmers)	Breeder Seeds (Plantlets using SAH technology)
HIB	-	3,533.30	10,300.45	-	-	-	-	-
Maize	-	27.70	20,111.00	-	-	-	-	-
Millet	103.00	4.04	858.30	-	-	-	-	-
Rice	209.10	10.00	565.81	-	-	-	-	-
Sorghum	2,519.30	8.58	1,486.80	-	-	-	-	-
Wheat	-	5,938.50	158,625.00	8,873.20	-	-	-	-
Tilapia	-	-	-	-	94,920,360	-	-	-
Catfish	-	-	-	-	64,403,596	-	-	-
Cassava	-	-	-	-	-	81,315	20,328,750	47,065
Total	2,831.4	9,522.1	191,947.4	8,873.2	-	81,315	20,328,750	47,065

Validating and measuring outcomes against programme objectives

The output of TAAT activities plays a crucial role in supporting the development objectives of the programme. They demonstrate how TAAT is assisting countries in establishing resilient pathways for sustainable development. By collaborating with national and regional partners, TAAT facilitates the adoption of innovative technologies, practices, and policies that enhance agricultural productivity, improve food security, and foster economic growth. At the outcome level by helping to improve agricultural productivity, enhancing value chains, and promoting market access, TAAT enables farmers to increase their yields and improve the quality of their products. This, in turn, translates to higher incomes for farmers as they are able to generate income through farming. In this regard, TAAT activities promote the adoption of climate-smart and sustainable agricultural practices that help partners and farmers mitigate the impacts of climate change and build resilience. Through its Compacts, TAAT facilitates the transfer of knowledge and capacity-building, empowering farmers to implement resilient farming techniques and adapt to changing environmental conditions. Some key data at the outcome level are provided below:

- An analysis of the impact of TAAT technologies deployed within the programme across the commodity and enabler compacts showed that there was an average increased income of 75% from the benchmark values established at the beginning of the program. The overall benefit shows an additional value of USD 451 in annual income per family compared to their income status before TAAT interventions. This result is primarily attributed to the dissemination of high-quality seeds through TAAT partnership arrangements.
- For the different TAAT targeted commodities, analysis using the baseline income values, the targeted income values, and actual income values indicated that the progress made on income was follows: 54% Enable-TAAT, 40% Wheat, 41% Maize, 50% OFSP, 65% Aquaculture (Tilapia), 98% for Aquaculture (Catfish), Rice (60%), Cassava (65%) and 230% Small Livestock with a mean of 75%
- An analysis using the baseline productivity values, the targeted productivity values, and actual productivity values indicate the progress made on productivity as follows: 33% for Small Livestock, 168% for Cassava, 38% for Maize, 40% for Orange Flesh Sweet Potato, 69% for Rice, 73% for Aquaculture (Tilapia), 59% for Aquaculture (Catfish), 100% for Sorghum, 71% for Forage, 100% for Millet, 100% for Wheat, and 113% for High Iron Beans, with a mean of 80%.
- TAAT has created employment for 168,425 people.

Other notable TAAT achievements include

24 New Partnerships Formed



■ Attribution 77% ■ Contribution 23%

Finance leveraged from other independent initiatives (donors, public sector, private sector), in-kind, and cash-based contributions to TAAT activities

USD 307,801
Cash & In-Kind finance leveraged



■ Attribution 82% ■ Contribution 23%

Number of new government policies, laws, and regulations revised, approved, and adopted for implementation contributed by TAAT



Government Policies laws and regulations influenced by TAAT

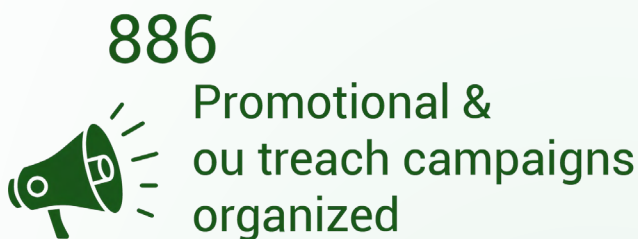


■ Attribution 100%

Number of functional multi-stakeholder platforms for learning, knowledge generation, and dissemination technology delivery-support



Number and type of campaigns or promotional activities organized



Number of people trained with improved skills on agriculture enterprises development





CREATING PATHWAYS FOR INCREASING AGRICULTURAL PRODUCTION: OUR STORIES FROM THE FIELD

These stories highlight how TAAT is having impact on the ground. By hearing about the experiences of farmers who have successfully implemented new practices or technologies, farmers (and governments) can gain insights into the potential benefits and challenges of these innovations, as well as practical advice on how to implement them effectively. Stories from the field are also a tremendous source of inspiration validating the pathway forward.



A wheat farmer in Bunkure, Kano state, Nigeria proudly identifies with his field

Delivering modern technologies to African farmers

Deploying Quality Rice Seed to Improve Livelihoods in the Rice Agri-Food System

In 2018, Africa produced 18.62 million tons of milled rice while it consumed over 32 million tons. This led to the importation of 13.98 million tons at the cost of US\$ 5.9 billion to bridge the production-consumption gap of 42%. To address these challenges, the TAAT Rice Compact (TRC) led by AfricaRice, since 2019, has vigorously worked with Governments to accelerate, multiply and deploy climate-smart, market-preferred rice seed varieties and hybrids to improve rice production on farmers' fields.

Examples of the high-yielding and climate-smart seeds deployed by the TAAT Rice Compact (TRC) include varieties such as: NERICA L19 sub1, ORYLUX 6; NERICA 4; WAB 638-1 known as Akadi in Côte d'Ivoire, IR841 known as AGRA Rice in Ghana with yield potential ranging from 4.0 to 7.0 MT. As at 2021/2022, the compact has produced MT69.1 of quality breeder seeds; out of this number, MT23.82 have been deployed and are being multiplied into MT61,304 of certified seeds by 49 seed enterprises through public-private-partnership (PPP), and in collaboration with development projects.

The TAAT Rice Compact is also promoting high-yielding AfricaRice-developed hybrids (AR032H, AR051H, AR708H and AR606H), with Senegal

Hybrid rice varieties



Hybrid rice field supported by TAAT in Bouke' Cote d'Ivoire

breasting the tape in the release of AR051H. These have shown high yields ranging from 5.8 to 14 t/ha in on-farm demonstrations in farmers' fields led by seed enterprises in Togo, Côte d'Ivoire, and Mauritania, among others.

Furthermore, seed enterprises in 15 African countries have also benefited from the Compact's seed deployment activities. They are Benin, Burkina Faso, Central Africa Republic, Côte d'Ivoire, Gambia, Ghana, and Liberia. Others include Madagascar, Mauritania, Mali, Niger, Nigeria, Senegal, Togo and Uganda. In Nigeria, paddy yield increased from 4.3 to 6.7 MT/ha in the Rice Innovation Platform in the Nasarawa State, using the varieties earlier mentioned.

Following the Rice Compact's engagements across these countries, about 2.5 million smallholder farmers are expected to cultivate 1,226,080 ha with rice producing MT3,678,240 of paddy (at 3.0 MT/ha) and MT2,390,856 of milled rice equivalent to a reduction of importation bill by US\$ 1.5 billion. This is estimated to increase farmers' income from US\$459/ha to US\$604/ha.

To enhance the seed supply of these varieties and hybrids, the Compact facilitated the establishment of a Consortium of Seed Enterprises and Millers (COSEM-Riz). With over 40 members, the consortium accelerates efforts in the multiplication and delivery of seeds whilst establishing strong linkages with millers and farmers to increase farmers' access to markets. Joshua Jonathan, Chairman – Bukan Sidi Lafia Rice Innovation Platform (IP) in Nasarawa State, North-central Nigeria avers that with the support of TRC, IP Members have now been able to acquire most of their needs which include seed to improve productivity, technical information, other farm inputs (herbicides and fertilizer), water pump for irrigation, a GEM Parboiler and a rice mill. All these have worked together to increase farmer access to IP's and to markets.

Bean Production and Marketing for Improved Nutrition and Income

On the undulating landscape of Omobirona village in Western Kenya, is a healthy bean crop planted using the newly released high iron and zinc bean varieties; Angaza, Faida and Nyota. Farmers with a thirst for knowledge of these varieties are trickling in for a field day to learn about nutritious beans, how best to grow them and available market opportunities. Organized by the TAAT High Iron Beans Compact (THC) led by the International Center for Tropical Agriculture (CIAT) through the Pan Africa Bean Research Alliance (PABRA), the field day attracted various stakeholders including AgroZ Kenya, Syngenta Kenya Ltd, Kenya Biologics Ltd, Greenlife Crop Protection Africa, Royal Seeds, Twiga Chemicals Ltd, SeedCo Kenya and Agrofoods Trading Ltd.

The field day equally enjoyed the partnership of the County Government of Nyamira, the Kenya Agricultural and Livestock Research Organization (KALRO), the Cereal Growers Association (CGA) and Yara International. The favourable weather conditions in Nyamira make it one of the counties with great potential to produce beans. Most farmers have grown the more traditional variety Onyoro which is low yielding and prone to disease attacks. By introducing high-yielding and nutrient-dense bean varieties recently developed by KALRO through the support of PABRA, these varieties have helped farmers improve their bean production.

Also included in TAAT's High Iron Bean intervention are outreach campaigns on the nutritional value of beans in addressing micronutrient deficiencies that are prevalent in Kenya, especially among children - 26% of children under five are stunted and 11% of them are underweight. The HIB Compact, the County Government of Nyamira and other stakeholders have organized a series of on-farm demonstrations (demos) and field days to show the farmers the potential of the high iron and zinc beans in order to show farmers that beans can, not only be produced for subsistence purposes but also for markets. These events provide knowledge and information on where to access the right seed, how to adopt good agricultural practices, and accessing competitive markets.

To take advantage of the market opportunities,



farmers have organized themselves into a production cluster to pull efforts together towards improved bean productivity while enjoying economies of scale. The biofortified varieties have shown great potential of production in Nyamira and surrounding counties and will go a long way in years to come as a key crop that addresses Food and Nutrition Security Pillar of the Kenya Government that assures Kenyans of the right to be free from hunger and to have adequate food of acceptable quality.



Nyota High Iron Bean plant in Kenya

Growing Water-Efficient and Climate-Smart Maize has Changed My Life – Kenyan Farmer

When he bumped into his former primary school classmate along the roadside way back in 2013, the meeting was meant to be a normal catch-up conversation between peers. Having parted ways after finishing primary school in 1986, Stephen Melchizedek and Margaret Awinja went down memory lane. During their conversation, Margaret was keen to know what Stephen

had been doing with his life after they left school. Unlike Margaret, Stephen could not proceed with his studies due to a lack of school fees. This forced him to join his father in doing menial jobs to support the family. He would later work as a small-scale farmer in his Shirembe village, Kakamega County, in Kenya. At the point of their meeting, Margaret, who upon completion of primary school, had proceeded to secondary school and after that acquired a college education was now working as the coordinator of Western Region Farmers Network (WEREFANET), a local Community-Based Organization (CBO) in Kakamega County. Margaret then introduced him to her organization that was working with different groups of farmers across Kakamega County. Given his work as a priest and his influence in the area, she tasked him to bring together farmers to form a CBO where they could learn how to improve their farming activities.

Without hesitating, Stephen moved quickly and marshalled farmers through his local church and within a short period, Shirembe Tuinuke CBO was established with him as the coordinator. The newly formed group was affiliated to the umbrella, WEREFANET, that Margaret heads.

Shirembe Tuinuke CBO works with 41 farmers from the Shirembe sub-location and 800 farmers from the larger Butere Sub-County. Its members' farming practices improved over time, and they witnessed distinct changes when they were introduced to the TAAT Maize Compact (TMC) technologies.

Stephen prefers WE1101 over local varieties he has been planting for years due to its fast maturity and good husk cover on the cob that protects the grain from being damaged by birds and strong stems that can withstand strong winds. In terms of taste, he notes this variety to be sweeter than the others. During the second planting season in 2020, he harvested 11 bags of maize from his quarter-acre land. This was a far cry from the three

bags of maize he used to harvest before he started using hybrid seeds. Stephen sold six bags at Ksh 2,200 (approximately \$ 22) each, with the proceeds going towards paying school fees for his daughter in high school. He kept the remaining five bags for family consumption. He quickly points at the cow he recently bought from the sale of maize harvested from the first season in 2020.

Water-Efficient Maize variety deployed by TAAT

Stephen's story mirrors those of his group members, who confirmed that their livelihoods have improved since they began planting the WE1101 hybrid seeds. The varieties are water-efficient, tolerant to moderate drought, and fast maturing. The maize variety was approved for commercial release to farmers in 2013 in Kenya under the trademark DroughtTEGO. In 2014, through WEREFANET, this maize variety was introduced to the region by the WEMA project of African Agricultural Technology Foundation (AATF), and it has helped farmers from this region improve their maize production. He adds that being small-scale farmers, they usually operate with limited farming knowledge and poor agricultural practices. In February 2021, the CBO was trained on post-harvest management through the TMC. Through such training, the members of the CBO have learnt how to handle, store and even transport maize produce to the market.



Stephen Melchizedek posing with his maize harvest

Mitigating Fall Armyworm infestation through a suite of technologies

An outcome case study conducted by TAAT in Q2 of 2022 for the TAAT Fish Compact (TFC) led by the WorldFish Centre, established that innovative fish technologies were deployed to support sustainable intensification of both new and existing aquaculture enterprises. The



Fall Armyworm

Compact has supported knowledge transfer to beneficiaries, teaching them the importance of fish seed production, how to accelerate fast-growing mono-sex tilapia fingerlings by fish farmers, and ways that improved fish processing using solar tent dryers and smoking kiln technology to increase post-harvest processing. These technologies have been deployed in collaboration with the Ministry of Fisheries, Universities, and the Private sector.

1,886 beneficiaries were trained in specific aquaculture technologies, resulting in the production and distribution of 34,508,646 million fingerlings of catfish and tilapia produced from improved brood stock. The beneficiaries also adopted improved rearing systems, including hapa system, learnt how to do recirculation techniques in their ponds, and produced quality, low-cost fish feed formulation to reduce their cost of production.

At Mukonda AgroFarms based in the central region of Zambia, we breed tilapia and catfish. We started out in 2017, and by 2018, we got introduced to TAAT, and we have been working together. One of the activities that we have really benefited from TAAT is the capacity building programme, which took place in Albassa, Egypt. The training was the steppingstone as it opened many gates that helped expand our operations. So, we have access to the database of fish technologies in agriculture, and they have helped us. And we have continually received technical and financial assistance from the TAAT team. — Roy Mukonda, Zambia

What TAAT has done to the knowledge that we previously had is incredible. We've reached a point where we can produce fish better than we used to do in the past, and we're using them to continue. At Mpeni Farms, we appreciate what TAAT has done, and we pray and believe that those should not only end here; we expect many more things to come, and we would also want to be involved at any given time. So we're expecting a lot from TAAT but otherwise, they've done a good job. — Joyce Tembo, Director Mpeni Farms, Lusaka Zambia.

TAAT Fish Interventions in Zambia: Boosting livelihoods through technologies

Budding youth-led enterprises often find it challenging to raise capital. In many cases, such enterprises begin with personal savings or financial support from families and acquaintances, which may not sufficiently cater to the business plan over the long term. In other cases, youth may form a cluster and combine their financial strengths to build the enterprise. To bridge this gap, the TAAT Youth in Agribusiness Compact (also known as ENABLE TAAT), as part of its commitment to stimulating youth-led agribusiness enterprises along agricultural commodity value chains, partnered with Equity Bank, Uganda, to support new and growing youth enterprises in the entire region of East Africa.

The Compact's team in Uganda is working to secure partnerships with banks and development organizations with special offers for agribusiness development among youth. In Uganda, approximately 200 have benefited from this partnership with Equity Bank. They are receiving loan packages to start or expand their businesses and the necessary training from TAAT ENABLE on developing their business plans for sustainable success. This momentum is being replicated in Kenya and Tanzania, where Equity Bank has agreed to fund trained youth in these countries upon review of their business plans. While the funding process is ongoing, ENABLE-TAAT will continue to support the youth to effectively use funds and provide guidance on their business plan development. The Compact is committed to establishing a sustainable structure which will facilitate access to capital for African youth immediately after training, thereby increasing the number of successful youth-led enterprises in the continent.

Linking Youth in Agribusiness to Credit: TAAT Records Success in Uganda

In Kyotera District, Uganda, just like in many other countries, youth migration is rife, owing largely to the seeming lack of livelihood options. During the COVID-19 lockdown that made many schools and organizations shut down, Diana Nikum and Sumaiah Nakate took the opportunity to participate in livestock training organized by ENABLE TAAT. After the training, both ladies purchased five exotic

Tilapia fish harvested at Mpeni farms in Lusaka, Zambia



breeds of sheep. The sheep are being herded on a massive plot of land, abandoned by those who went to cities searching for opportunities.

By 2021, the enterprise set up by Diana Nikum and Sumaiah Nakate grew from 5 to 105 sheep, with a projection to have up to 130 sheep before the end of the year. With very minimal input except spending their savings to buy the sheep, both ladies were able to run a profitable business with minimal operational funding needed. The abundance of grass on the plot meant the sheep could graze freely, and through community outreach programmes, they could free vaccines from other herders in the community. Both farmers now have the vision to diversify into value addition as the enterprise expands.

Apart from the technical training provided by the ENABLE TAAT, the compact also renders business development services that help youth businesses sustain and continue to grow. Diana and Sumaiah have now developed their

How Youth in Agribusiness is Reversing Migration in Uganda

business plan and have received funding from Equity Bank Uganda to expand the enterprise. Their success story is already causing a paradigm shift amongst youth in the area, with many wanting to participate in sheep farming. Their success, coupled with the possibility of accessing capital from Equity Bank, further fuels youth interest in agriculture in Uganda.

In Kyotera District, Uganda, just like in many other countries, youth migration is rife, owing largely to the seeming lack of livelihood options. During the COVID-19 lockdown that made many schools and organizations shut down, Diana Nikum and Sumaiah Nakate took the opportunity to participate in livestock training organized by ENABLE TAAT. After the training, both ladies purchased five exotic breeds of sheep. The sheep today are being herded on a massive plot of land, abandoned by those who went to cities in search of opportunities.

Harvesting fingerlings for sale at Mukonda Farms, Zambia





**Cassava
Sorghum & Millet
Wheat
OFSP**





High iron beans
Livestock
Rice
Maize



Vegetables
Soybean
Banana and Plaintain





PUBLIC SECTOR ENGAGEMENT: A COLLABORATIVE APPROACH WITH NATIONAL GOVERNMENTS



TAAT's MEL Specialist, Rachel Zozo presents TAAT materials to the Representative of the Support Unit for the Integrated Emergency Community Development Program (CAPUIDC) at the Congolese presidency

While there are many approaches to driving change in the agricultural sector, working with governments to link modern agriculture to country investments is one of the most effective ways to achieve sustainable and long-lasting change. Governments in Africa are the drivers of change in the agricultural sector by providing funding, infrastructure, and regulatory support. By partnering with governments, organizations can leverage these resources to promote modern agriculture and drive sustainable progress in the sector. By adopting modern farming techniques and technologies, farmers can improve yields and reduce waste, leading to increased food production and reduced food insecurity. Scaling in TAAT is a collaborative bottom-up approach for strengthening partnerships and trust with Governments. Crop varieties are not a one-size-fits-all solution and must be tailored to specific regions and growing conditions. Therefore, engaging with countries to encourage the adoption and investment of suitable crop varieties is essential to maximize their agricultural potential. This involves collaboration between Government's, National Agriculture Research and Extension Services (NARES, the private sector and farmers to identify the most appropriate technology solutions and develop strategies for widespread adoption. The examples below show how collaboration and partnership with Governments are the keys to creating entry points that help to ensure modern technologies are linked to national investments and that Governments work with science experts to help develop their agriculture sectors.

TAAT-PIDACC: Improving the resilience of 130 million people and their agroecosystems in the Niger Basin



Beninese farmers being trained on TAAT technologies under the PIDACC Farmer Field School programme

On June 15th, 2021, TAAT signed an MoU with the Niger Basin Authority (NBA) to deliver modern agriculture solutions and provide capacity building support to project beneficiaries in the Programme intégré de Développement et d'Adaptation au Changement Climatique dans le Bassin du Niger (PIDACC). Funded by the African Development Bank through the Niger Basin Authority, the project covers nine countries in the Niger River Basin (Benin, Burkina Faso, Cameroon, Cote D'Ivoire, Guinea, Mali, Niger, Nigeria, and Chad) and promotes 25 technologies related to rice, maize, and wheat through the release of technology catalogues and organized training events. With sights set on improving

the resilience of about 130 million people and their agroecosystems in the Niger Basin across West and Central Africa, TAAT experts developed extension and training materials based on the 25 technologies. A Training of Trainor (ToT) programme was delivered and deployed to 41 extension agents (41% women and youth), from the PIDCACC countries, who were then to cascade the training to their direct beneficiaries in each country. This first step of the knowledge transfer of agronomy to extension officers was the focus of the TAAT engagement. Feedback loops were established so that the Niger Basin stakeholders can seek continuous answers to their questions as the knowledge is deployed to farmers.

Building Resilience in the Horn of Africa



AfDB and TAAT experts in a group photograph with the Djibouti Minister of Agriculture during the Feed Africa 2 Conference

The Programme to Build Resilience for Food and Nutrition Security in the Horn of Africa (BREFONS) is an AfDB-funded project which covers four countries (Djibouti, Kenya, Somalia and Sudan) with regional activities led by the Intergovernmental Authority on Development

(IGAD). Approved in November 2021 implementation of the project begun in early 2022. TAAT experts led by the country engagement team worked to ensure technologies and corresponding activities were embedded into the project during the design phase. The focus was informing the governments on the value addition of TAAT and how a partnership would help the project achieve its intended results. At the regional level, TAAT technology experts continue to work with IGAD on finalizing an MoU for implementation focused on the validation and recommendations in regard to supporting agropastoral communities deploy efficient and effective integrated pest management solutions that are needed to combat the challenges posed by agriculture pests such as Fall Armyworm and Locusts. An MoU for Djibouti linking TAAT vegetable, livestock, date palm, and fish technologies to the country project has been signed. Implementation of the Somalia and Kenya projects are already in view.

A Special Emergency Assistance Fund (SEAF) for drought and famine in Africa

The SEAF was established by the African Union as Pan- African mechanism to support AU's response to disasters. The SEAF Fund is triggered by requests from member states in dire humanitarian need. In early 2022 SEAF funds were requested from 16 member countries to help countries respond to the post-COVID-19 impact on food systems across the continent: Angola, Burkina-Faso, Central Africa Republic, Chad, Democratic Republic of Congo, Ethiopia, Liberia, Mali, Mozambique, Niger, Nigeria, Sierra Leone, Somalia, South Sudan, Sudan, and Zimbabwe. TAAT coordinated the implementation of the 16 interventions that focused on strengthening agricultural value chains and creating platforms for sustainability. Through US\$5M provided by the AUC to support countries, TAAT experts were commissioned to provide technical support to governments on variety identification, logistic support for procurement and supply of seed, capacity building & training on good agricultural practices, and knowledge materials to be used by national partners for scaling. A total of 99,729 beneficiaries were reached through SEAF funding, and a total of 636.068 MT of seeds, 1200 herds of sheep and goats, and 408.000 fingerlings were procured and distributed.

Delivering Sustainable Seed System in Gabon

TAAT in November 2022, signed an agreement with the Gabonese Ministry of Agriculture and Food to provide technical assistance to the Grain Phase 1 Support Project (PAPG1). With support from the African Development Bank, the government of Gabon, through the PAPG1, seeks to boost the production of four food crops, including plantain and cassava. With a focus on strengthening the seed system in the country, PAPG1 is set to increase Gabon's self-sufficiency in cassava to 100% by 2030 while promoting the sale of an additional 44,000 tons of cassava; and 46,438 tons of banana/ plantain, thus creating 5,100 permanent jobs and 17,300 temporary jobs, 75% which will be women and youth. Through the PAPG1 project, TAAT is already strengthening Gabon's cassava and plantain seed systems by providing 5 million healthy cassava cuttings and 667 thousand plantain tissue culture plants. The government will further multiply these seeds through its agency, the Société de Transformation Agricole et de Développement Rural (SOTRADER), to promote annual crops for further multiplication and distribution to the farmers by December 2023.

Cassava seed system deployment by TAAT



Boosting the production of High-Quality Livestock Feed from Cassava Peels in Rwanda



producing high-quality livestock feed from cassava peels

TAAT, in partnership with the Rwanda Agriculture and Animal Resources Development Board facilitated the training of cassava processors, feed producers, farmer field school facilitators and cooperatives on the transformation of cassava peels into high-quality livestock feed.

The August 2022 training increased the awareness of the HQCP's potential to increase the income of cassava farmers through increased access to cassava peel processing technology.

The three-day session equally provided the opportunity for National Agricultural Research and Extension Systems (NARES) staff and private sector entrepreneurs in Rwanda to acquire the skills in transforming cassava peels into good quality livestock feed. TAAT is currently scaling up investment in HQCP as a cost-competitive alternative to maize and a source of energy for livestock feed while demonstrating the HQCP technology's operability through training trainers and entrepreneurs.







TECHNOLOGY BROKERAGE: BUILDING AVENUES FOR PARTNERSHIP



Durum sorghum variety deployed by TAAT in Senegal

Feeding Africa: Mobilising leadership to scale up successful innovations

African Development Bank (AfDB) and the International Fund for Agriculture Development (IFAD) in partnership with the African Union Commission (AUC), the Forum for Agricultural Research in Africa (FARA), the Food and Agriculture Organization (FAO) and Consultative Group on International Agricultural Research (CGIAR) hosted the High-Level Dialogue on Feeding Africa: leadership to scale up successful innovations in April 2021. Eighteen Heads of government, and thirty Ministers for Finance, Planning and Economy, Agriculture and Rural Development participated in the dialogue. TAAT showcased its successful technologies and through videos, and the programme was applauded by the Heads of States and Ministers as a key mechanism in raising the productivity of key commodities and enhanced efforts towards agriculture as a business in Africa. The Heads of States and Governments, Ministers and Development Partners attending the dialogue then committed to five-point agenda to: accelerate agricultural production through scaling up of existing and proven agriculture, livestock and fisheries technologies; Increase investment in agricultural Research and Development; Create an enabling policy environment; Facilitate the access of African countries to concessional resources; and Call for a Financing Facility for Food Security in Africa.



Scaling Up Innovations to Modernize African Food Systems

A virtual conference was organized by the Scientific Group for the UN Food Systems Summit and facilitated and hosted by the FAO in July 2021. The conference's goal was to support the agenda-setting process of the Food Systems Summit with scientific evidence and perspectives. TAAT hosted a virtual Side Event entitled Scaling Up Innovations to Modernize African Food Systems. This side event was a joint effort of the International Institute of Tropical Agriculture (IITA), The WorldFish Centre, the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) and the Alliance of Bioversity International and CIAT. It provided vistas on TAAT's efforts at transforming African food systems through technology delivery and innovative partnerships that drive food security, deliver better nutrition, reduce poverty, and strengthen food systems. Around 500 participants from research, policy, civil society and industry participated via Zoom, YouTube and Facebook streaming in the side event, which also examined how to unlock the full potential of science, technology, and innovation to achieve more healthy diets and more efficient, inclusive, resilient and sustainable food systems.

Technology brokerage for a resilient food system in Africa

In September 2021, the African Green Revolution Forum (AGRF) was held under the theme Pathways to Recovery and Resilient Food Systems. It showcased solutions and explored the pathways and actions needed to accelerate the transformation of Africa's food systems and steer the continent towards food systems processes that deliver sufficient and nutritious food without impacting the environment negatively and create sustainable, dignified jobs and shared prosperity for Africa. TAAT held a side event at the AGRF 2021 under the theme of Technology brokerage for a resilient food system in Africa. The side event interrogated ongoing efforts at transforming Africa's food systems, and presented technology brokerage as a veritable pathway to achieving food security and addressing the environmental challenges of the 21st century across Africa. It further explored the impact of TAAT's deployment of scientific innovations and partnerships on food systems and how African farmers can build climate and food resilience across agro-ecological zones through technology brokerage. This open forum was key in accessing opportunities for strengthening partnerships and linkages with the government, the private sector, and other agricultural development programs to form the nucleus of the heralded transformation of Africa's food systems.

Sustaining the momentum towards agricultural transformation through technology fair

The first edition of the West Africa Technology Fair (WATEF) held in the Senegalese capital, Dakar, in October 2021 under the theme Sustaining Momentum towards Agricultural Transformation. As a follow-up to the High-level Dialogue on Feeding Africa: Leadership to Scale-up Successful Innovations, organized by the AfDB and IFAD in April 2021, the fair equally leveraged the outcome

of the United Nations 2021 Food Systems Summit as a pathway for a food secure West Africa. The fair promoted cutting-edge technologies needed for the transformation of West African agriculture. It brought together agriculture and finance ministers from West Africa, farmer organizations, businesses, civil society members, etc. WATEF was organized jointly by TAAT and the West and Central African Council for Agricultural Research and Development (CORAF) under the auspices of the Economic Community of West African States (ECOWAS). Most innovations displayed constituted technologies being deployed at scale by CORAF's Centers of Specialization and TAAT Compacts with a view to opening avenues for innovative partnerships, technology brokerage, and uptake. At least 307 participants attended the hybrid fair. The fair provided a great opportunity to share information and experiences across various technology options. It highlighted the need to translate agronomic gains to economic gains at scale and the need to re-consider the structure of the TAAT Enabler and Commodity Compacts to ensure the continuous enabling elements within each Compact.



Different maize varieties at the Agricultural Technology Fair

Achieving resilience through the water, food and climate nexus

TAAT hosted a side event under the theme Achieving resilience through the water, food and climate nexus: the Feed Africa Imperative at the August 2021 World Water Week World Water in Stockholm, Sweden. In Africa, the Water-Energy-Food Nexus is particularly relevant due to the continent's rapidly growing population, urbanization, and increasing demand for water, energy, and food resources. In Africa, water is a critical resource for agriculture, which is a major source of livelihoods and food security for many people. The event allowed for an exchange of ideas on how TAAT is addressing water management focused by improving irrigation efficiency, enhancing water storage, and promoting sustainable land management practices.

An emergency food production facility for Africa

To tackle the effects of the Russian war in Ukraine on food security in Africa, the Board of the African Development Bank approved on May 20, 2022, a \$1.5 billion African Emergency Food Production Facility, to support the African Emergency Food Production Plan, jointly developed with the African Union. The facility will support 20 million farmers in African countries to produce 38 million metric tons of food, valued at \$12 billion. This will consist of 11 million metric tons of wheat, 18 million metric tons of maize, 6 million metric tons of rice and 2.5 million metric tons of soybeans.

The AEFPP is a short-term intervention to raise the production of wheat, maize, rice, and soybean to compensate for the lost supply due to the Ukraine war. The Plan will produce 37.6 million metric tons of these staple food crops, an increase of

Irrigation technology at a soyabean field in Lusaka, Zambia



about 30 per cent in local production. The Bank continues to assist African countries in ensuring food and nutrition security through the Africa Emergency Food Production Plan. The AEFPP is envisioned to increase the resilience of the region's food systems and ability to tackle growing food insecurity. The facility will enhance inter-agency food crisis response and also boost medium- and long-term efforts for resilient agricultural production, sustainable development of natural resources, expanded market access, and a greater focus on food systems resilience in policymaking.

Drawing on the Bank's experience with previous crises and responses to them, including the 2008 food price crisis, Ebola, the COVID-19 Rapid Response Facility (CRF), the Feed Africa Response to COVID-19 (FAREC), as well as best practices of the Technologies for African Agricultural Transformation (TAAT) initiative, AEFPP will build on the established partnership structure to help countries address the risks to their food security by increasing food production through the delivery innovative technologies and extension services to millions of farmers and increasing countries' access to fertiliser.

AEFPP will therefore deploy TAAT's partnership ecosystem, which comprises the Consultative Group on International Agricultural Research (CGIAR) Centres, the world's largest global agricultural innovation network and provider of agricultural technologies.

TAAT Phase II begins

The African Development Bank in July 2022 approved the commencement of phase two of the Technologies for African Agricultural Transformation (TAAT) programme. The Bank Group's Board of Directors approved releasing an additional \$27.41 million to implement Phase II of the programme. The bank lauded the giant strides recorded under TAAT-I, which have galvanised the investment of more than \$800 million in agricultural value chain projects in 21 African countries.

It has also mobilised \$500 million in co-financing from the World Bank, the International Fund for Agricultural Development (IFAD), the Islamic Development Bank (IsDB), the Global Environment Facility (GEF) and other organizations, such as the Bill & Melinda Gates Foundation that support the TAAT Clearinghouse operations.

TAAT-II would work closely with African countries to support the implementation of the \$1.5-billion African Emergency Food Production Facility. This facility was set up by the Bank in May 2022 to help African countries obtain additional resources for agricultural production to guard against an impending food crisis due to the war in Ukraine.

The facility is expected to provide certified seeds, fertilizers, extension services and post-harvest management technologies to 20 million farmers. It is expected to produce an additional 38 million tonnes of food (11 million tonnes of wheat, 18 million tonnes of maize, 6 million tonnes of rice and 3 million tonnes of soybeans) worth \$12 billion over the next two years.

It would be recalled that countries that benefited from TAAT-I have substantially increased production and commercialization, raised farmers'

incomes and created job opportunities for women and youth. TAAT-I provided over 61,000 metric tons of heat-tolerant wheat seed varieties to Ethiopia. The seeds have enabled Ethiopia to boost its cultivated areas of wheat production from 50,000 hectares in 2018 to 167,000 hectares in 2021 and to 400,000 hectares in 2022.

TAAT II will work with Regional Economic Commissions (RECs), African Green Revolution Alliance (AGRA), The Africa Seed Access Index (TASAI) and AU to advocate for countries to domesticate regional seed regulations and remove barriers to the cross-border trade of seeds by addressing challenges such as lack of mutual recognition that results in retesting for variety registration or certification and standardized phytosanitary procedures. Some countries, such as South Sudan, do not have seed regulations. TAAT II will support them in developing seed regulations and align them with harmonising regulations, especially COMESA Seed Trade Harmonization Regulations regionally.

TAAT continues to prove that science, technology, innovation, and knowledge can combine to produce unprecedented increases in agricultural productivity, and TAAT II will help to develop efficient seed supply chains and systems that increase returns to farmers and guarantee consistent, quality outputs to upstream investors in processing capacity and value-addition. Resources available for TAAT II will further allow compacts to increase the provision of pre-basic, basic, and certified seeds required to generate the 120 million mt of additional food production. As part of the sustainability measures of TAAT, it will continue to key into country programs and projects to ensure the delivery of proven smart seeds and other technologies



Group photograph at the TAAT II Launch in Cotonou, Benin Republic

What's next?

The Technologies for African Agricultural Transformation (TAAT) programme has made significant progress in improving agricultural productivity and sustainability in Africa through linking the use of modern technologies and practices to government investments and efforts for agriculture development. TAAT's efforts continue to address some of the key challenges facing smallholder farmers across the continent, including limited access to high-quality seeds, low productivity and access to agronomy knowledge advice. By partnering with leading research and development institutions, building strong partnerships with governments and other stakeholders, and promoting the adoption of new technologies and practices, TAAT has shown that it is possible to achieve meaningful impact across the continent. Moving forward, TAAT will need to continue to innovate and adapt to new challenges, but its work provides a strong foundation for building a more productive, sustainable, and inclusive agricultural sector in Africa. TAAT will continue to invest in scaling up the technologies and practices that have successfully improved agricultural productivity and sustainability across the continent. This may involve expanding the project's reach to new areas, working with new partners, and finding new ways to promote adoption among farmers in partnership with governments.

TAAT will continue to link new research and development initiatives aimed at identifying and testing new technologies and practices that can improve agricultural productivity and sustainability in the region. TAAT will continue to invest in building and strengthening partnerships with governments and linking technologies to NGOs, private sector actors, and research institutions to ensure their work is aligned with national development plans and priorities.

TAAT in 2023 and beyond will continue to respond to the needs and priorities of farmers and governments.



wheat variety in a TAAT-supported field in Kano, Nigeria

TAAT consolidated statements of sources & application of funds (US \$)
YEAR END 31 DECEMBER 2021

	Notes	2021	2020	2019	2018
		USD	USD	USD	USD
Sources of Funds:					
African Development Bank (AFDB)	8	9,904,481	6,998,824	15,362,407	5,559,948
Refund for Ineligible Expenses		17,867	-	-	-
Bank Interest		-	-	582	-
Other Donors		1,000,000	3,252,110	1,220,822	1,139,762
Total funding for the year		10,922,349	10,250,934	16,583,811	6,699,710

		2021	2020	2019	2018
		USD	USD	USD	USD
Application of funds:					
COMPONENT 1 - Creation of Enabling Environment					
Works		-	-	-	-
Goods		2,974	544	3,040	8,248
Services		351,105	221,386	306,574	565,348
Personnel		42,197	-	-	-
Recurrent		147,937	33,490	45,328	22,093
SUBTOTAL		544,213	255,420	354,942	595,689
COMPONENT 2 - Regional Technologies Delivery Infrastructure (RTDI)					
Works		-	-	-	-
Goods		9,993	136,193	22,945	125,959
Services		817,808	421,897	1,035,575	1,055,234
Personnel		6,039	1,200	-	30,196
Recurrent		250,165	94,647	175,896	149,634
SUBTOTAL		1,084,004	653,937	1,234,416	1,361,023
COMPONENT 3 - Deployment of Appropriate Technologies (DAT)					
Works		10,871	-	-	-
Goods		90,819	145,606	5,590,379	152,962
Services		848,476	1,300,044	4,383,807	1,224,789
Personnel		10,174	-	-	44,839
Recurrent		677,511	296,948	474,673	209,414

		2021	2020	2019	2018
		USD	USD	USD	USD
SUBTOTAL		1,637,850	1,742,597	10,448,859	1,632,004
COMPONENT 4 - Project Management					
Works		-	-	-	-
Goods		63,034	98,540	91,626	186,843
Services		3,454,257	1,344,412	1,073,597	835,649
Personnel		3,055,949	3,485,249	3,300,704	2,344,538
Recurrent		567,467	419,682	699,780	258,850
Others		-	-	-	-
SUBTOTAL		7,140,707	5,347,882	5,165,707	3,625,880
TOTAL FUNDS APPLIED		10,406,774	7,999,837	17,203,923	7,214,596

TAAT consolidated statements of sources & application of funds (US \$)
YEAR END 31 DECEMBER 2022

	Notes	2022	2021	2020	2019	2018
		USD	USD	USD	USD	USD
Sources of Funds:						
African Development Bank (AFDB)	8	1,397,811	9,904,481	6,998,824	15,362,407	5,559,948
Refund for Ineligible Expenses		-	17,867	-	-	-
Bank Interest		13	-	-	582	-
Other Donors		550,012	1,000,000	3,252,110	1,220,822	1,139,762
Total funding for the year		1,947,836	10,922,349	10,250,934	16,583,811	6,699,710
Application of funds:						
COMPONENT 1 - Creation of Enabling Environment						
Works		-	-	-	-	-
Goods		5,570	2,974	544	3,040	8,248
Services		30,802	351,105	221,386	306,574	565,348
Personnel		8,800	42,197	-	-	-
Recurrent		120	147,937	33,490	45,328	22,093
SUBTOTAL		45,292	544,213	255,420	354,942	595,689
COMPONENT 2 - Regional Technologies Delivery Infrastructure (RTDI)						
Works		-	-	-	-	-
Goods		8,355	9,993	136,193	22,945	125,959
Services		30,442	817,808	421,897	1,035,575	1,055,234
Personnel		13,200	6,039	1,200	-	30,196
Recurrent		7,470	250,165	94,647	175,896	149,634
SUBTOTAL		59,466	1,084,004	653,937	1,234,416	1,361,023
COMPONENT 3 - Deployment of Appropriate Technologies (DAT)						
Works		-	10,871	-	-	-
Goods		11,140	90,819	145,606	5,590,379	152,962
Services		29,232	848,476	1,300,044	4,383,807	1,224,789
Personnel		17,599	10,174	-	-	44,839
Recurrent		45,143	677,511	296,948	474,673	209,414
SUBTOTAL		103,114	1,637,850	1,742,597	10,448,859	1,632,004
COMPONENT 4 - Project Management						
Works		-	-	-	-	-
Application of funds:						
	Notes	2022	2021	2020	2019	2018
		USD	USD	USD	USD	USD
Goods		5,631	63,034	98,540	91,626	186,843
Services		1,897,131	3,454,257	1,344,412	1,073,597	835,649
Personnel		1,630,946	3,055,949	3,485,249	3,300,704	2,344,538
Recurrent		333,347	567,467	419,682	699,780	258,850
Others		32,210	-	-	-	-
SUBTOTAL		3,899,266	7,140,707	5,347,882	5,165,707	3,625,880
TOTAL FUNDS APPLIED		4,107,137	10,406,774	7,999,837	17,203,923	7,214,596

Who's who in the TAAT Program in 2021 – 2022

PROGRAMME STEERING COMMITTEE

Members:

Mr. Gaston Cossi DOSSOHOU	- Chairperson
Dr. Mary A. MGONJA	Vice-Chairperson
Dr. Dunstan S.C. SPENCER	Vice-Chairperson
Dr. James Ambrose AGONA	Member
Dr. Stella Ama ENNIN	Member
Dr. Sophia E.N. MLOTE	Member
Prof. Abdourahmane SANGARE	Member
Dr. Abdou TENKOUANO	Member
Dr. Noe WOIN	Member
Ms. Maria Z. ZALOUMIS	Member

Ex officio members (non-voting)

Dr. Kenton DASHIELL	Representing the Executing Agency
Dr. Ramadjita TABO	Representing the Implementing Agencies

PROGRAMME MANAGEMENT UNIT (PMU) STAFF

Chrysantus AKEM	Programme Coordinator
Sabra LEWIS	Programme Administrator
Seyi FASHOKUN	Programme Accountant
Monsuru BAKARE	Procurement Specialist
Chidozie AGBAKWURU	Procurement Officer
Kikelomo ADEKOYA	Accounting Officer
Becca OLAMUYIWA	Accounting Officer
Ebenezer ADENEKAN	Executive Assistant
Tarhyel AYUBA	Driver

CLEARINGHOUSE (CH) STAFF

Innocent MUSABYIMANA	Head of Clearinghouse (2021 – 2022)
Solomon Gizaw	Head of Clearinghouse (2022)
Oluwatoyin ADETUNJI	Value Chain Specialist
Rachel ZOZO	Monitoring & Evaluation Specialist
Atayi OPALUWAH	Communication Specialist
Bruno TRAN	Scaling Expert
Deedi SOGBOHOSSOU	Programme Officer
Paul WOOMER	Technical Adviser
Fidelia BABADJIDE	Executive Assistant
Rollande HOUNSINOU	Senior Accountant
Welissa MULEI	Technical Associate
Kennedy Macharia KAGO	MEL Assistant
Boris ADOUGAN	Driver/Messenger

TECHNOLOGY DELIVERY COMPACTS

Rice Compact (led by AfricaRice)

Ernest Asiedu Compact Coordinator

Kevin KOUADIO Accountant

Maize Compact (led by AATF)

Jonga MUNYARADZI Compact Coordinator

Fredah NYAGA Accountant

Sorghum & Millet Compact (led by ICRISAT)

Dougbedji FATONDJI Compact Coordinator

Boubakary CISSE Technology Transfer Officer

Wheat Compact (led by ICARDA)

Zewdie BISHAW Compact Coordinator

Hassan Mahmoud Accountant

High Iron Beans Compact (led by CIAT)

Josey Kamanda Compact Coordinator

Justin MACHINI Technology Transfer Officer

Jesika ODUOR Accountant

Cassava Compact (led by IITA)

Adebayo ABASS Compact Coordinator

Orange-Fleshed Sweet Potato Compact

Paul DEMO Interim Compact Coordinator

Daniel MBOGO Technology Transfer Officer

Livestock Compact (led by ILRI)

Getachew FEYE Acting Coordinator/Technology Transfer Officer
(Ethiopia)

Sidi TOUNKARA Technology Transfer Officer (Mali)

Ermyas SEBSIBE Accountant

Fish Compact (led by WorldFish)

Bernadette FREGENE Compact Coordinator

Ajibola OLANIYI Technology Transfer Officer

Toyin EMMANUEL Accountant

Fall Armyworm Compact (led by IITA)

Peter CHINWADA Compact Coordinator

Enable-TAAT Compact (led by IITA)

Noel MULINGANYA Compact Coordinator

Idowu OSUN Business Development Officer

Soil Fertility Compact (led by IFDC)

Jean Ekwe DOSSA Interim Compact Coordinator

Hortense ZOUNGRANA Accountant

Water Management Compact (led by IWMI)

Sander ZWART Compact Coordinator

Richard APPOH Technology Transfer Officer

Seth NKETSIAH Accountant

Capacity Development & Technology Outreach Compact (led by FARA)

Krishan BHEENICK Compact Coordinator (2021)

Abdulrazaq Ibrahim Compact Coordinator (2022)

Benjamin ABUGRI Knowledge Management & Technology Outreach

Belinda KASEI Accountant

Karen Munoko Agribusiness Expert

Policy Support Compact (led by AATF)

Francis NANG'AYO Compact Coordinator

Daniel Kyalo WILLY Programme Officer

Mary Asorit Finance Assistant





Banana plant in a TAAT-supported field



Contact

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