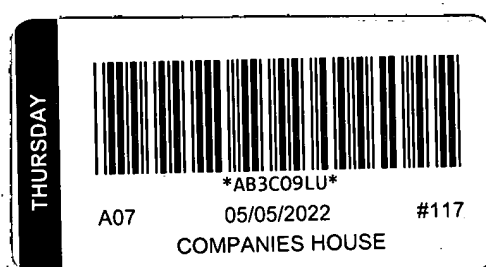


CHARITY NUMBER: 1107507
COMPANY REGISTRATION NUMBER
04645806

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
(A COMPANY LIMITED BY GUARANTEE)

CONSOLIDATED REPORT AND FINANCIAL STATEMENTS

31 DECEMBER 2020



GLOSSARY OF TERMS

Company Registration No. 04545806

AATF	African Agricultural Technology Foundation
AGRA	Alliance for a Green Revolution in Africa
AIARC	Association of International Agricultural Research Center
AMELIA	AATF Monitoring Evaluation, Learning and Improvement and Align
BBSRC	Biotechnology and Biological Sciences Research Council
BMGF	Bill and Melinda Gates Foundation
Bt	Bacillus thuringiensis
BXW / BW	Banana Xanthomonas Wilt / Bacterial Wilt
CAMAP	Cassava Mechanisation and Agro-processing Project
CFT	Confined Field Trial
CIAT	International Center for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Center
CIP	International Potato Center
CIRAD	Centre de cooperation Internationale en recherche
CORAF	West and Central African Council for Agricultural Research and Development
COSTECH	Commission for Science and Technology
COVID	Coronavirus Disease
DFID	UK Department for International Development
EGS	Early Generation Seed
EIAR	Ethiopian Institute of Agricultural Research
EU	European Union
FARA	Forum for Agricultural Research in Africa
FAW	Fall Army Worm
FOCAC	Forum for Chinese Africa Collaboration
FRC	Financial Reporting Council
FRS 102	Financial Reporting Standards 102
GATE	Ghana Agricultural Technology Evaluation
GBP	Great British Pound
GM/ GMO	Genetically Modified / Genetically Modified Organisms
HEAL	Hybrids East Africa Ltd
IAR	Institute for Agricultural Research
IFPRI	International Food Policy Research Institute
IIAM	Instituto de Investigaç�o Agr�ria de Moçambique
IITA	Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IP	Intellectual Property
IRAD	Institute of Agricultural Research for Development
KALRO	Kenya Agricultural & Livestock Research Organisation
KES	Kenya Shillings
KPI	Key Performance Indicator
LLP	Limited Liability Partnership
MCMV	Maize Chlorotic Mottle Virus
MISS	Market Information Support System
MLN	Maize Leaf Lethal Necrosis
NaCRRI	National Crops Resources Research Institute
NARO	National Agricultural Research Organisation
NARS	National Agricultural Research Systems
NaSARRI	National Semi-Arid Resources Research Institute
NASECO	Nalweyo Seed Company Ltd
NCRI	National Cereal Research Institute
NEPAD	New Partnership for Africa's Development
NERICA	New Rice for Africa
NEWEST	Nitrogen Use Efficiency, Water Use Efficiency and Salt Tolerant
NGO	Non-Governmental Organisation
NI	National Insurance
NUE	Nitrogen Use Efficient

GLOSSARY OF TERMS (CONTINUED)

OFAB	Open Forum on Agricultural Biotechnology in Africa
QBS	Qualibasic Seeds
PBR	Pod-borer Resistant
PPPs	Public Private Partnerships
ROU	Right-of-use Asset
RSA	Republic of South Africa
SARI	Savannah Agricultural Research Institute
SFSA	Syngenta Foundation for Sustainable Agriculture
SNV	Stichting Nederlandse Vrijwilligers
SSA	Sub-Saharan Africa
SOPs	Standard Operating Procedures
SORP	Statement of Recommended Practice
spp	Species Plural
TAAT	Technologies for African Agricultural Transformation
TARI	Tanzania Agricultural Research Institute
US	United States
USAID	United States Agency for International Development
VAT	Value Added Tax
WACCI	West Africa Centre for Crop Improvement
WEMA	Water Efficient Maize Africa
ZARI	Zambian Agricultural Research Institute
ZIM	Zimbabwe

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TRUSTEES' ANNUAL REPORT

LEGAL AND ADMINISTRATIVE INFORMATION

CHARITY NUMBER
1107507

COMPANY REGISTRATION NUMBER
04645806

REGISTERED OFFICE AND OPERATIONAL ADDRESS

African Agricultural Technology Foundation
C/O Arnold and Porter (UK) LLP, Level 30,
Tower 42, 25 Old Broad Street, EC2N 1HQ
London, United Kingdom

REGISTERED KENYA OFFICE ADDRESS:

ILRI Offices
Old Naivasha Road
P.O. Box 30709 – 00100
Nairobi

SUBSIDIARIES' OFFICE ADDRESSES

AgriDrive Nigeria Limited
Country of Incorporation: Nigeria
Company Registration Number: RC1474799
Registered Office Address: No 3, Idris
Ibrahim Street, Jabi, Abuja, FCT
Head Office Address: No 1 J Allen Avenue,
Bank Road,
J- Allen Bus Stop, Dugbe, Ibadan, Oyo State

Qualibasic Seed Company Limited
Country of Incorporation: Kenya
Company Registration Number:
PVT/2016/031638
Eastgate Road, off Mombasa Road
P.O. Box 28897 - 00100
Nairobi, Kenya

TRUSTEES' ANNUAL REPORT (CONTINUED)

LEGAL AND ADMINISTRATIVE INFORMATION (CONTINUED)

AUDITOR

Grant Thornton UK LLP
30 Finsbury Square
London EC2A 1AG

SOLICITORS

BDO Seidman, LLP
Accountants and Consultants
12505 Park Potomac Ave, Suite 700
Potomac, MD 20854, USA

Sandalwood Solicitors
Suite B20 Shakir Plaza
NO.3, Micheka Street
Off Ahmadu Bello Way
Area 11, Garki
Abuja-CFT, Nigeria

Arnold & Porter LLP
Tower 42
25 Old Broad Street
London, EC2N 1HQ
United Kingdom.

BANKERS

NCBA Kenya PLC,
Commercial Bank Building, Standard/Wabera Streets,
PO Box 30437-00100
Nairobi, Kenya

TRUSTEES' ANNUAL REPORT (CONTINUED)

STRUCTURE, GOVERNANCE AND MANAGEMENT

BOARD OF TRUSTEES

Ousmane Badlane – Chair

Executive Chairperson & Managing Director
AKADEMIYA2063
Kigali, Rwanda

Jennifer Thompson – Board Chair Emeritus

Director - International Service for Acquisition of Agribiotech Applications (ISAAA)
Ithaca, NY - USA

Noble Banadda – (deceased 1 July 2021)

Professor, Biosystems Engineering - Makerere University
Kampala, Uganda

Shey Romanus Tata – Member

International Development Consultant
Silver Spring, USA

Denis Kyetere – Member (retired on 30th June 2021)

Executive Director
African Agricultural Technology Foundation (AATF)
Nairobi, Kenya

Sylvia Horemans – Member

Chief Executive Officer
Kamano Seed
Lusaka, Zambia

Ingrid Wünnig Tschol – Member

Senior VP and Head of Health and Research
Robert Bosch Foundation - Gerlingen, Germany
Senior VP strategic Advise Science, Board Management

Canisius Kanangire – Member (appointed on 1st July 2021)

Executive Director
African Agricultural Technology Foundation (AATF)
Nairobi, Kenya

Bernard Slippers – Member (Appointed 10 Nov. 2021)

Professor, Department of Biochemistry, Genetics, and Microbiology
University of Pretoria
Pretoria, South Africa

Jeremy Tinga Ouedraogo – Member

Head - NEPAD West Africa Regional Office
African Biosafety Network of Expertise (ABNE)
Dakar, Senegal

Jessica Colaco – Member

Co-founder & VP of Growth and Success
Brave Venture Labs
Nairobi, Kenya

Dame Glover Lesly Anne – Vice Chair

Special Advisor to the Principal – Univ. of Strathclyde & President of the Royal Society of Edinburgh
Glasgow, Scotland

Dahlia Garwe – Member

Chief Executive Officer (CEO)
Tobacco Research Board
Harare, Zimbabwe

George Sarpong – Member

Managing Partner
G. A. Sarpong & Co.
Accra, Ghana

Hamadi Iddi Boga – Member & Government Representative

(appointed 19 May 2020)
Principal Secretary – Ministry of Agriculture
Nairobi, Kenya

Johnson Irungu Walthaka – Member & Government Representative

(retired 19 May 2020)
Director of Agriculture – Ministry of Agriculture
Nairobi, Kenya

Aggrey Ambali – Member (Appointed 10 Nov. 2021)

Director - Industrialization, Science, Technology, and Innovation (ISTI),
AUDA-NEPAD Agency
Midrand, South Africa

Djime Adoum Djibrine – Member (Appointed 10 Nov. 2021)

High Representative
Coalition for the Sahel
Brussels, Belgium

EXECUTIVE LEADERSHIP TEAM (ELT)

Denis T. Kyetere

Executive Director and Trustee (Retired 30th June 2021)

Canisius Kanangire

Executive Director and Trustee

Emmanuel Okogbenin

Director Programme Development & Commercialisation

Moussa Elhadj Adam

Director Finance & Administration (Retired 31 Jan 2021)

Alhaji Tejan-Cole

Director of Legal Affairs & Board Secretary

Sofia Tesfazion

Director of Resource Mobilisation

Peter Mugambi

Director of Corporate Services (Appointed 04 Jan 2021)

TRUSTEES' ANNUAL REPORT (CONTINUED)

STRUCTURE, GOVERNANCE AND MANAGEMENT (CONTINUED)

The African Agricultural Technology Foundation (AATF) is a company limited by guarantee, not having a share capital and a registered Charity governed by a Memorandum and Articles of Association.

Article 8 of the Articles of Association deals with the Appointment of Trustees. The Trustees may appoint a person to be a Trustee, either to fill a vacancy or as an additional Trustee, for terms of a maximum of two terms of three years each (Article 8.1 read with Article 8.2). Article 8.2 shall not apply to the Executive Director or to the representative for the time being of the host country of the Charity. The term of service of the ex-officio Trustee being the representative of the host country of the Charity shall be determined by the government of the host country of the Charity. The name of host country's (Kenya) ex-officio Trustee is Johnson Irungu Waitthaka.

In accordance with the AATF Articles of Association and Board Decisions, the Board shall consist of not less than seven nor more than twelve trustees. Up to ten trustees-at-large shall be drawn from academia, public sector organisations, international and local private sector companies, donor agencies, major non-governmental organisations and the Consultative Group on International Agricultural Research community; the representative of the host country; and the Executive Director (ex officio).

The Nominating Committee, which is a standing committee advisory to the Board, advises the Board on the nomination of new trustees. The Nominating Committee maintains a data bank of potential candidates for future trusteeship and considers candidates for trusteeship several years in advance in order to maintain a balanced Board in terms of the list of qualifications. The list of qualifications are geographical distribution, field of expertise, gender, availability, language and suitability for Board leadership and Committee assignments.

The decision of the full Board on the Nominating Committee advice is normally reached by consensus. In the absence of a consensus at a meeting of the Board, the Board Chairperson may, and at the request of any two trustees not including the Executive Director or the representative of the host country, shall, put the proposal to a vote.

Trustees are elected for terms of no more than three years as determined by the Board in advance of the election, with appointments staggered to ensure continuity. Trustees are eligible for re-election to a second term, also of three years, but shall not serve more than two successive terms. The term of office and the selection of the trustee appointed by the government of the host country shall be determined by the government.

At the time an individual is invited to be a candidate for trusteeship, he or she is provided with information on Board responsibilities and a sample schedule of meetings. In most cases the trustee nominee will be invited to attend a Board meeting as an observer prior to election. Following election to the Board, the new trustee receives a letter from the Board Chairperson welcoming him or her to the Board as well as background information from the Board Secretary, including the Board Manual with all annexes, minutes of the last two Board meetings and the most recent AATF Annual Report. At the first Board meeting, the new trustee attends, either as a trustee elect or observer, he or she also has an opportunity for briefings from the Board Chairperson, senior management, and program staff. The senior management is responsible for arranging the orientation briefings.

The members of the Board of Trustees are required to be experts in relevant fields such as agricultural research, agribusiness, agricultural extension, marketing, biotechnology, intellectual property law, and biosafety. New Trustees are inducted in the governing documents and policies of the AATF. The Board of Trustees is occasionally trained on emerging governance and policy management issues. Whenever need arises, the Trustees are also trained on resource mobilisation, business negotiation skills among others. The Foundation is in the process of incorporating a Trustees Training Policy into the existing Board of Trustees Manual to streamline the procedures and processes of training Trustees.

The general business of the Charity is managed by the Trustees who are charged with exercising all the powers of the Charity. The Trustees are specifically charged with expending the funds of the Charity in such manner as they consider most beneficial for the achievement of the objects, to invest in the name of the Charity such part of the funds as they may deem fit, to direct the sale of any such investments, to expend the proceeds of any such sale in furtherance of the objects of the Charity, and to enter into contracts on behalf of the Charity. The Trustees delegate the day-to-day management of the Charity to the Executive Director.

The relationship between the Charity and collaborative institutions is that of independent entities. Nothing in the Charity's collaborative agreements shall be construed as constituting any collaborative institution to be the agent of another or shall be construed so as to constitute a legal partnership or joint venture of any kind between the collaborative institutions.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES

Our vision, objectives, aims, and activities

The Charity's vision is a prosperous and food-secure Africa. The Charity's mandate is to transform livelihoods in Sub-Saharan Africa through innovative agricultural technologies. The Charity's specific objectives are:

- Diversify agricultural technologies accessed for use in SSA
- Accelerate the commercialisation of agricultural technologies for improved farmers livelihoods
- Create an enabling environment for increased uptake and use of agricultural technologies in SSA

The Charity achieves its specific objectives above by affecting the following implementation objectives:

- Mainstreaming Women and Youth Empowerment
- A revamped partnerships approach will take lessons from ongoing relationships and the establishment of new networks, including those critical new areas such as digital agriculture and gender and youth.
- We are restructuring the organisation and re-aligning skills to respond to the dynamic environment.
- We are increasing and diversifying the funding base.
- We are implementing a monitoring and evaluation system based on an effective knowledge management system.

African Agricultural Technology Foundation (AATF) aims to ensure food security and reduce poverty in Africa. AATF is designed to facilitate public-private partnerships to access, develop, adapt and deliver appropriate agricultural technologies for sustainable use by smallholder farmers in Sub-Saharan Africa through innovative partnerships and effective stewardship along the entire value chain. It provides expertise in the identification, access, development, delivery and use of appropriate agricultural technologies. In its quest to ensure food security and reduce poverty in Africa, AATF draws upon the best practices and resources of both the public and private sectors. It also contributes to capacity building in Africa by engaging institutions on the continent in the diverse partnerships through which it executes its mandate.

AATF uses a medium to a long-term strategy to achieve its objectives. This strategy focuses on the access of appropriate technologies, developing and adopting these technologies, and deploying and commercializing these technologies for impact. These strategic focus areas are the key aspects (key performance parameters) to attaining the Foundation's objectives. We anchor our activities on a strong and effective institutional programming and a conducive environment through:

- Institutional capacity building for technology access, development, adaptation, and deployment; and
- Creation of an enabling environment for technology access, development, adaptation and deployment.

To achieve AATF's vision "Prosperous Farmers and a Food-Secure Africa," we endeavor to:

- Have AATF's footprint on as much of SSA as possible. To achieve this, AATF must spread its projects and activities throughout SSA beyond the current concentration in East Africa and parts of southern and West Africa;
- Broaden the range of technologies accessed beyond novel breeding techniques, including Genetically Modified technologies to encompass agro-processing (value addition), biological control, etc.
- Expand the donor portfolio - to all our current and planned activities; and
- Work at ensuring exemplary relationship management of key stakeholders.

Guiding Principles

- AATF responds to a growing sense of urgency, demanding that agriculture plays a stronger role in Africa's economic development. The response includes the recognition that new approaches to technology development and delivery are required.
- AATF believes that if African agriculture is to provide secure livelihoods for farm households and contribute to economic growth then the private sector must play a much more important role in technology development for and delivery to smallholder farmers.
- This strong belief in the potential of the private sector is combined with a commitment to re-invigorate public sector roles in African agriculture, ensuring that public institutions support both markets and policies for equitable development.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

- AATF focuses its attention on proprietary/innovative technologies because much of it is currently unavailable to African farmers. Because such technologies encourage commercial activity, it can bring new energy to African agriculture; its importance lies in the incentives it provides for the delivery of a product.
- AATF is committed to the adoption of new technologies and to facilitating the adoption process by intervening to mitigate risks and ensure that the new technologies are deployed and used appropriately.
- AATF is committed to fostering partnerships that are based on real incentives, including the desire of emerging African enterprises to grow and prosper; the interest of farmers in acquiring the most productive technologies to improve their food security and incomes; and the commitment of donors and governments to see that those farm households with insufficient resources are helped to build their assets and experience in order to prosper.

Core Values

As pioneers to brokering innovative agricultural technologies to farmers, and in particular to resource-poor smallholder farmers, in SSA, AATF staff uphold the following core values: integrity, dedication and accessibility (IDA).

Integrity: We uphold integrity; we keep our word and do what we say we will do by when/how. We adhere to moral principles in dealing with ourselves and partners. We seek to be honest, transparent and accountable. In recognition of our facilitative role, we provide accurate information to our partners while respecting confidences. We also base our actions on facts and present accurate reports of our progress, thus showing credibility and thriving to become the partner of choice for stakeholders in the agricultural sector.

Dedication: We are responsible partners, committed to ensuring our intended beneficiaries are well served. We seek to maintain good relations with our partners, investors, staff and other stakeholders to ensure we maximise their potential for delivering public goods. We undertake to seek required resources to ensure the success of accessing and delivering required technologies.

Accessibility: We are available and approachable to discuss and/or provide information that will support technology transfer in SSA. AATF has specialised expertise to address niche issues related to technology transfer such as technology stewardship, partnership management, regulatory compliance and intellectual property management. In recognition of the capabilities and contribution of the various entities involved in overall agricultural revival for SSA, AATF will avail its knowledge and provide necessary information in discussions and in requests for information to support best decisions and inform opinion on the issues at hand. We respect our stakeholders' opinion and seek to learn from their experiences.

The significant activities that contribute to the achievement of the above objectives are as follows:

- Developing *Maruca*-resistant cowpea varieties for use by smallholder farmers.
- Improvement of bananas resistance to banana bacterial wilt disease.
- Implementing the TELA Project which deals with the transgenic aspects of the ended Water Efficient Maize for Africa (WEMA) Project.
- Developing Nitrogen-Use Efficient, Water-Use Efficient, and Salt Tolerant (NEWEST) rice varieties.
- Implementation of the Cassava Mechanisation and Agro-processing Project (CAMAP).
- Open Forum for Agricultural Biotechnology (OFAB).
- Developing Hybrid Rice for use by smallholder farmers
- Seeds2B Project.
- Maize Lethal Necrosis (MLN) Diagnostics and Management.
- Development and testing of transgenic potato with resistance to bacterial wilt
- Qualibasic Seeds Project
- Technologies for African Agricultural Transformation (TAAT)

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

STRIGA CONTROL IN MAIZE PROJECT

Finalization of Impact Evaluation Exercise and Presentation of Findings

As part of AATFs ongoing effort to improve the evidence base and help us to fairly and objectively identify credible, reliable, and useful results and document the impact of our interventions, we commissioned an Impact Evaluation for the Striga Control in Maize project in 2019 and finalized it in July 2020. The Tegemeo Institute of Agricultural Policy and Development, Egerton University, was contracted to conduct the evaluation (on behalf of AATF) covering three countries (Uganda, Kenya & Tanzania). The evaluation report was presented to AATF in July 2020, and it covered the findings, conclusions, recommendations, and lessons learned through the assessment process. The evaluation was conducted in alignment with the Development Assistance Criteria (DAC) quality assistance which identifies the key pillars needed for the quality evaluation process and product. The criteria addressed the projects: relevance, effectiveness, efficiency, impact, and sustainability.

The following are some of the key findings from the evaluation in line with the DAC criteria:

DAC Criteria	Key findings
Relevance	<ul style="list-style-type: none"> The project offered an immediate solution to a 'felt problem' in the region of low yields and heavy Striga infestation with the potential to enhance food security and household incomes, particularly with smallholder farmer households
Effectiveness	<ul style="list-style-type: none"> The seed delivery system was constrained by the requirement for separate facilities for handling: production, transportation, and storage of IR maize seed that had a short viability period after treatment. The release of IR maize varieties was prompt and fast-tracked by converting an already popular maize variety Access to Imazapyr by seed companies during a large part of the project period was constrained due to delays in the registration process There was poor implementation of the stewardship plan, mainly by the seed companies that became the major area of weakness in the deployment and commercialisation of StrigAway technology Use of both mother and baby demos, and where demos were mounted more than once were more effective in capacity building of the farmers, and most of the farmers reached appreciated the training and were found to be more knowledgeable Training received from the project imparted crucial knowledge about Striga weed biology and its control which some farmers continued to apply even in the absence of IR seed in the market There is a lack of IR treated maize seed in the market, which impacted negatively on the promotion and hence adoption of the technology
Impact	<ul style="list-style-type: none"> Outcome 1: There was an Increased Farmer Awareness, Knowledge, and Perception of IR seed and Technology across farmers, regions, and countries Outcome 2: The increased use of the IR seed was hindered by the unavailability of IR seed in the market Outcome 3: There was an increased yield in Maize fields infested with Striga weed - The finding is, however, in reference to a point in time and does not reflect a sustained change in yields resulting from eradication of Striga Outcome 4: Reduced expression of Striga in fields: StrigAway technology contributed a great deal to reduce Striga infestation in maize fields planted with IR seed Outcome 5: Households that adopted StrigAway technology as required could have attained food security and sold surpluses to the market as evidenced by doubling of yields; as a result of use of StrigAway technology. However, this was curtailed by un-sustained availability of IR seed
Sustainability	<ul style="list-style-type: none"> There is a lack of treated IR seed in the market except for Uganda, which compromises a continuous flow of the benefits from the use of StrigAway technology in the absence of the project Breakthroughs that promise to resolve challenges associated with StrigAway technology, though available, require further investment and support by all stakeholders.

Way Forward: The exercise also identified key best practices in the project's implementation model, recognised key challenges, and derived lessons and recommendations. AATF had initiated a learning series/ process of using the information obtained from the Striga Control in Maize project to improve the implementation of projects by AATF.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

POD BORER RESISTANT (PBR) COWPEA PROJECT ACHIEVEMENTS IN 2020

Objective

The project aims at contributing to food security and improving the livelihoods of smallholder farmers in Sub-Saharan Africa by developing and deploying improved, high-yielding farmers-preferred cowpea varieties that are resistant to the insect pest *Maruca vitrata*, commonly known as Legume Pod borer (LPB).

The Problem

The LPB (*M. vitrata*) is a Lepidopteran pest that inflicts severe damage to cowpea. In severe infestations, yield losses of between 70–80% have been reported.

AATF Intervention

AATF is addressing these problems through a combination of conventional breeding and genetic engineering of the crop to improve its productivity and utilisation.

Project Achievements

The first set of PBR cowpea varieties developed in the project had only one gene for resistance. Given the need to strengthen the durability of cowpea resistance to *Maruca vitrata*, the project developed new PBR lines carrying a second gene for resistance. Efficacy trials for the second gene have been completed. While transformation with both genes (Cry1Ab + Cry2Ab) through a molecular stack is still being optimised, efforts through a breeding stack using marker-assisted backcrossing are ongoing in Nigeria and Ghana. Regulatory trials for the second gene are ongoing in Nigeria, Ghana, and Burkina Faso. Data generated from the regulatory trials will be used to compile the dossier which will be submitted to regulatory authorities towards commercial release in the three project countries.

The project has also made advances in the development of the regulatory dossiers for the release of the transgenic PBR cowpea in Ghana. The dossier has been submitted to the National Biosafety Authority (NBA) Ghana and is awaiting review and decision-making by Ghanaian authorities.

A significant milestone by the Project in 2020 is the conduct of larger-scale demonstrations in farmers' fields across many locations in 10 cowpea producing States in Nigeria. This was done to create awareness and demand for the product by farmers. Also, to jumpstart commercialisation and to upscale, the first product of PBR Cowpea released as SAMPEA 20-T in Nigeria, which is one of the focus of the project's new phase, AATF signed a contract with the IAR Seed Unit in the year 2020 to produce both foundation and certified seeds to prime the pump. Seed production was greatly constrained by the early cessation of rainfall during the 2020 rainy season. However, a total of 1133kg of foundation seeds and 3000kg of certified seeds were produced during the 2020 cropping season in Nigeria. The foundation seeds will be sold to the licensed seed companies for certified seed production in 2021 while the certified seeds will be allocated to the licensed seed companies for direct sales to the farmers in 2021. To ensure that farmers have access to the seeds produced, three private seed companies (Tecni Seed Limited, Maina Seed Limited and Goldagric Nigeria Limited) were identified and approved for commercial licensing of the product. The commercial licensing process is ongoing and will be completed during the first quarter of 2021.

As part of product stewardship efforts to protect farmers from counterfeit seeds, the Project is collaborating with the National Agricultural Seed Council (NASC) to deploy an anti-counterfeiting mechanism known as SeedCodex. The SeedCodex places the power to verify the authenticity of seeds in the hands of the farmer. At the point of purchase, the farmer can scratch off the scratch panel on the seed packet and, using their mobile phones, send the numbers found within the scratch panel to a number provided on the seed packet. Immediately the farmer will get a response that confirms the authenticity of the seed. This will be deployed in 2021, prior to the product launch.

Expected Impact

- i) The strategy for the year 2020-2025, as per new granted USAID fund, is to scale out Bt Cowpea in Nigeria, Burkina Faso, and Ghana to reach an adoption rate of 15-25% with increased yields of 20%. This effort will also target the development of a Second-Generation PBR CowpeaXTRA Trait.
- ii) Increased production in Africa by at least 50 percent from 6.675 million tons to 10.150 million tons which translates to US\$ 4,567,500,000 at an average price of (US\$450/tons)

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

- iii) Increased yields of local varieties from 0.3 – 0.6 t/ha to 0.6 – 2.0 t/ha resulting in an increased income of at least US\$270-US\$ 900
- iv) Improved nutrition - cowpea contains 22 percent protein.
- v) Reduce regional grain prices by 9.5 percent, resulting in increased regional trade volume and demand by between 8.5 percent and 19.2 percent.
- vi) Improved health linked to the reduction in insecticide herbicide sprays from about 6 to 2 times

IMPROVING BANANA FOR RESISTANCE AGAINST XANTHOMONAS WILT IN SUB- SAHARAN AFRICA

The Problem

Over 100 million people consume bananas in Africa, where it is a staple food and an essential source of income, especially in East Africa and the Great Lakes region. The crop was severely threatened by the breakout of the epidemic of Banana Xanthomonas Wilt (BXW) at the beginning of the 21st century. The disease has a devastating effect in destroying the crop with severe implications for farmers who depend on the crop for livelihood. The disease leads to wilting of the plant, which leads to complete yield loss; as a consequence, farmers had to clear out diseased plants and wait for six months before replanting in the hope of breaking the cycle of the disease. Unfortunately, no banana variety has been resistant to the disease, neither has resistance been found in the crop's germplasm against the pathogen (*Xanthomonas campestris* pv. *Musacearum*). Therefore, the prospect of developing resistant varieties through conventional breeding was near impossible. The use of pesticides is also not feasible for the control of the epidemic. The dire situation necessitated seeking a novel, innovative approach towards tackling the disease to remedy the threat of the epidemic. Academia Sinica in Taiwan had successfully isolated genes from *Xanthomonas* resistant sweet pepper plants that holds strong potential in addressing the Xanthomonas wilt disease in banana. Both AATF and IITA decided to explore genetic transformation through the use of transgenes (PFLP [plant ferredoxin-like amphipathic protein-I US 5968804 gene, and Es-PfIp [(the extracellular plant ferredoxin-like protein - PCT/US2010/035910) and Hrap [Hypersensitive response assisting protein gene]), to develop BXW resistant bananas.

Objective

The primary objective was to avail farmers high quality yielding banana varieties with resistance to banana varieties to strengthen and enhance sustainable banana production in sub-Saharan Africa. The other critical and specific objectives were to:

- Negotiate access to genes conferring resistance to BXW
- Conduct efficacy test of the genes in banana
- Identify and select lead events
- Deregulate the genes for environmental and commercial release

AATF interventions

- AATF accessed the genes from the technology provider (Academia Sinica) and sublicensed them to IITA and national partners on the project for product development
- AATF prepared the license agreements
- In accordance with the agreement, AATF undertook the IP management for all forms of IP and General License Compliance, including license compliance visits for the genes covered under the agreements in order to maintain the terms of the license and ensure continued smooth use of the technology
- AATF developed the biosafety and IP compliance guideline in liaison with IITA to facilitate compliance and efficient implementation of the project by NARS in accordance with the expectations and requirements of Academia Sinica. The guideline was used for compliance audit visits.
- AATF renewed the License agreement with Academia Sinica, thus allowing the continued use of the ESPflp gene till 2023. The license for Hrap and PfIp are, however, valid till 2021

Summary of Achievements

- After testing hundreds of transgenic banana plants, resistant events were identified and selected.
- Efficacy trials: confined field trials showed that all control plants did not have the BXW resistance gene withered, while the resistant transgenic events survived. The genes were thus effective against the pathogens.
- The transgenic retain the original traits valued by growers and consumers, including size, taste, and maturation time.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

- Biosafety and compositional analysis indicate that there was no harmful allergenicity or toxins (health hazards) related to the transformation from the use of the genes
- Regulatory trials were initiated to generate a dossier to support deregulation. Lead events of two popular banana varieties, Matoke Hybrid M9 and Nakitember were tested.
- Audit visits indicate that there have been no infractions (IP infringement) on the sub-licenses granted.

Expected Impact

- Sustainable productivity of bananas in Africa due to new BXW resistant bananas.
- The technology is expected to avoid huge financial losses in the banana value chain. Analysis of losses over a 20-year period (2000 – 2019) was estimated at US\$5.6 billion in Uganda alone.

Key Challenges

- The project was funded by USAID. It also received funding from the FCDO (formerly DFID). The project ran out of funds as IITA, which leads the project, has yet to be able to source funds to continue for over two years now. Activities of the project for deregulation and release have therefore been halted.
- All transformed events are fully secure, and research will only continue at ILRI-BecA and not in the NARS locations. The Lead events have back-ups in the labs. Notification to national biosafety bodies of Uganda and will be raised once funds are available to continue with regulation trials.

Remarks

This project is no longer listed under the 2018-2022 Implementation strategy. AATF has however continued with the renewal of the sub-license for the genes to IITA for research purposes only.

TELA MAIZE PROJECT

The Problem

Africa is a drought-prone continent, making farming risky for millions of smallholder farmers who rely on rainfall to water their crops. Maize is the most widely grown staple crop in Africa – more than 300 million people in Africa depend on it as their primary food source. Maize is severely affected by frequent drought and irregular rainfall, which lead to crop failure, hunger, and poverty. Climate change is worsening the situation. Like drought, insect pests present a challenge for smallholder maize farmers in Africa who have limited resources to manage them effectively. During drought, maize is particularly susceptible to insect pests, and farmers can experience complete loss. The TELA Maize Project is, therefore, addressing the problem of drought and destructive insects, including stemborers and fall armyworms.

Stemborers are known to reduce maize production in several countries in Africa. For example, in Kenya, stemborers reduce maize production by an average of 13% or 400,000 tons of maize, equivalent to the normal yearly amount of maize imported by Kenya. This damage is valued at more than USD 90 million.

The Fall Armyworm (FAW) is a new devastating, transboundary pest of maize that was first observed in Africa in 2016. If solutions are not put in place quickly, projections estimate that it could destroy up to 20 million metric tons of maize in Africa each year. This is enough to feed 100 million people. Big producers of maize, such as Nigeria and Tanzania, could lose half or more of their harvests to fall armyworm, which can decimate an entire field in just a few days.

Objective

Successful commercialisation of TELA® maize varieties through local seed companies for use by farmers to mitigate effects of climate change especially moderate drought stress and losses to stem borers (Spotted stem borer [Chilo partellus]; African stem borer [Busseola fusca], and Pink stem borer [Sesamia calamistis]) and Fall Armyworm (FAW; Spodoptera frugiperda) insect pests.

AATF interventions

The TELA Maize Project is a public-private partnership that started in April 2018, working towards initiating the commercialisation of transgenic drought-tolerant and insect-protected maize varieties to enhance food security in Sub-Saharan Africa. The TELA Maize Project builds on progress made and lessons learned from a decade of excellent breeding work under the Water Efficient Maize for

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OBJECTIVES AND ACTIVITIES (CONTINUED)

Africa (WEMA) Project. Through WEMA, over 120 conventional drought-tolerant maize hybrids (DroughtTEGO®) have been released to farmers since October 2013. In addition, five insect resistant (Bt) TELA® maize hybrids were released and commercialised to smallholder farmers in South Africa since 2016.

AATF works in this partnership with the internationally funded non-profit International Maize and Wheat Improvement Center (CIMMYT), the private agricultural company Bayer, and seven National Agricultural Research Systems (NARS) in Ethiopia, Kenya, Mozambique, Nigeria, South Africa, Tanzania, and Uganda. AATF contributes its leadership, unique experience in public-private partnership management, technology stewardship, regulatory affairs and intellectual property management, and project management expertise. CIMMYT provided high-yielding maize varieties that are adapted to African conditions and expertise in conventional breeding and testing for drought tolerance and insect protection.

Bayer provided several proprietary germplasms, advanced breeding tools, and expertise, drought-tolerance and insect protection transgenes, and biosafety regulatory package. The varieties developed through the project will be distributed to African seed companies through AATF without royalty payment (technology fees) and made available to smallholder farmers as part of their seed business. The national agricultural research systems, farmers' groups, and seed companies participating in the project will contribute their germplasm, expertise in field testing, seed multiplication, and distribution. The project also involves local institutions, both public and private, and in the process expands their capacity and experience in agricultural biotechnology and biosafety.

Summary of Achievements

- Through intensive and persistent outreach and advocacy by the Project Outreach Taskforce (OTF), the long-awaited license from National Environmental Management Agency (NEMA) in Kenya was issued to the Project to allow for the advancement of TELA hybrids into national performance trials for variety certification after three years of protracted delay. The OTF advocacy also led to the reclassification of biotech activities in Mozambique from high risk, Class A to low risk, Class C activities. Six environmental impact assessment licenses were timely issues to allow the Project to advance TELA products to variety certification on deregulation of the traits.
- The regulatory dossier for environmental or general release of the TELA insect-protection and drought-tolerant traits was submitted for review to the Biosafety Agency (GIBS) in Mozambique. The outcome of the review is still being awaited. A similar dossier was drafted for Ethiopia.
- Preliminary meta-analyses of confined field trials on the efficacy of the Bt insect protection trait (MON810) in controlling stem borer and fall armyworm evaluated across ten locations in six Project countries from 2015–2019 showed on average, the Bt trait in the stacked drought-tolerant and insect-protection trait hybrids, gave a yield advantage of 33% relative to the non-genetically engineered versions of the same hybrids (isogenic hybrids). The drought-tolerant trait gave a yield advantage of 17% comparative to the isogenic hybrids. Further analyses are ongoing, with additional data collected.
- Further, within a year of joining the TELA Maize Project partnership, the TELA-Nigeria Team successfully carried out field testing across the major maize growing agro-ecologies in the country of DroughtTEGO® hybrids developed for Eastern and Southern Africa. Six hybrids that were superior to the best commercial hybrid were identified to be advanced to on-farm evaluations as part of the various certification process for release to farmers. The Team was also able to develop a confined field trial site with state-of-the-art irrigation facilities and planted their first confined field trials for stacked drought-tolerant and insect-protection (Bt, MON89034) trait hybrids in March 2020.
- Finally, smallholder farmers continue to benefit from the commercialisation of TELA hybrids in South Africa since 2016, with success stories: <https://www.aatf-africa.org/its-not-witchcraft-it-is-the-tela-maize-seed/>.

Expected Impact

- By the end of five years, the Project will have availed to smallholder farmers through licensed seed companies at least 250 tons of certified seed of a compelling set of ten transgenic TELA® maize varieties that combine drought tolerance, insect resistance, and other important yield and disease-resistance traits.

Key Challenge

- Anti-biotechnology activism and limited political will in some countries to adopt agricultural biotechnology in Africa remain the key challenge to the TELA Maize Project. The global COVID-19 Pandemic and the associated travel restrictions slowed down the implementation of some activities, and the Project had to resort to the use of virtual meetings and field photos to monitor the implementation of activities by partners.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

**DEVELOPING NITROGEN-USE EFFICIENT, WATER-USE EFFICIENT AND SALT TOLERANT (NEWEST) RICE VARIETIES FOR USE BY
SMALLHOLDER FARMERS IN SSA**

Objective

The NEWEST Rice Project is a multiple-partner collaboration project designed to develop and disseminate genetically improved African rice varieties with enhanced tolerance to abiotic stresses, specifically Nitrogen-Use Efficiency (NUE), Water-Use Efficiency (WUE), and Salt Tolerance (ST) for the benefit of smallholder farmers in Africa.

The Problem

Rice consumption in SSA has been growing by 6 percent per annum over the years, less than double the rate of population growth resulting in demands that far exceed local supply in SSA. The rising demand for the commodity has been largely attributed to changing food preferences in both urban and rural areas coupled with high population growth rates and rapid urbanisation in Africa. This demand and consumption rate indicate that rice is an important staple food and a commodity of strategic significance across most African countries. Regardless of its importance, rice productivity is generally low (2.2 MT/ha) in Africa compared to the global average of over 4.5 MT/ha (FAOSTAT), therefore is a need for specific interventions to address target production constraints. Abiotic constraints associated with soil nutrient depletion and imbalances (salinity, nutrient deficiencies, and toxicities) and water availability (drought and excess water) contribute significantly to low rice productivity in Africa.

AATF Intervention

The NEWEST Rice project was launched by AATF in 2008 as a strategic pathway to addressing food insecurity in the face of many abiotic constraints to rice production and the impending challenge of climate variability in Africa. The initiative strives to genetically transform some varieties of the New Rice for Africa (NERICA) using plant transformation technologies to improve their productivity in nitrogen-deficient soils, drought-prone regions, and soils with high salinity. To ensure adoption, the project will introgress the gene into the farmer's preferred varieties in the respective country of deployment and commercialisation.

Achievements

The NEWEST rice project has concluded transformation activities. A total of 33 events comprising 15 Nitrogen Use Efficient (NUE) and 18 Nitrogen-use Efficient, Water-use Efficient, and Salt Tolerant (NEWEST) events were developed by Arcadia Biosciences and distributed to all partners for confined field trials (CFTs). The 15 nitrogen-use efficient transgenic lines comprise six and nine lines from four co-transformation pipelines, respectively. In contrast, the 18 triple-stacked genes events for nitrogen-use efficiency, water-use efficient and salt tolerance are from two product pipelines. Both the 15 NUE and 18 NEWEST events were shipped to the partners in Crops Research Institute (CRI) Ghana, National Crops Resources Research Institute (NaCRRI) Uganda, National Cereals Research Institute (NCRI) Nigeria, and International Center for Tropical Agriculture (CIAT) Colombia. The NUE events were tested at four nitrogen levels (0kg, 30kg, 60kg, and 90kg) in 15 Confined Field Trials (CFTs) from 2012-2016 in four locations (Ghana, Uganda, Nigeria, and Colombia) to confirm the efficacy of the trait and identify the lead event with highest yield performance across locations.

The result of these CFTs and the molecular characterization of the events showed NUE12 as the lead event and NUE9 as the second to serve as a back-up for the lead event. Both events consistently outperformed the Bulk Sibling Nulls (BSN) and NERICA 4 (not transformed) with an average of 15% yield increase. In addition, the regulatory trials were conducted and concluded using NUE12, NERICA 4 & 8 between 2019-2020 at four locations in Nigeria (2), Ghana (1), and Uganda (1). These trials were used to generate material (rice grain and straw) for compositional analysis, samples of relevant plant tissues for determining HvAlaAT protein concentrations in order to complete an exposure assessment, and to generate agronomic and phenotypic data on plant growth, morphology, and reproductive characteristics to support the environmental risk assessment. These data, together with a complete molecular genetic characterization of event NUE-12, including the demonstration of stability over multiple generations and inheritance patterns, updated bioinformatic analyses, and other physicochemical studies, are already being in preparing the primary regulatory dossier for submission in Ghana and Nigeria to secure the environmental release of NUE12. Also, the early food safety evaluation (EFSE) for NUE protein that was earlier completed has its results now in the public domain on the website of the Food and Drug Agency of America.

Expected Impact

- A total welfare gain of more than US\$0.5bn could potentially be achieved if farmers adopting rice technologies are able to increase their yields by at least 30 percent.
- A reduction in rice imports leading to foreign currency savings of more than US\$300 million per year.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

- Increase of household income of at least US\$400 per annum.
- At least 500,000 households will be accessing or adopting the new rice varieties within the first three years after commercialisation.

Challenges and Lessons Learnt

The major challenge was that the NEWEST proposal for funding a new phase was not approved. However, AATF secured a no cost extension (NCE) from USAID to get a product released, and the NCE is ending by March 2022.

Also, the COVID-19 Pandemic interrupted planned activities as follows;

- Unable to conduct Regulatory Compliance & Stewardship Audits physically but being monitored remotely
- Harvesting concluded in April 2020 – a few days delay
- Delayed shipment of samples to the US - August instead of May 2020
- Delay in commencement of NUE Regulatory Trials II – July instead of May 2020

Key Benefactors of Project

This project will have a direct benefit to the resource-poor farmers (mostly women) in Africa, especially those with lands of poor soils that could produce little or nothing from their lands due to low nitrogen levels, drought, or salinity. It will also empower African scientific and agricultural communities to better deliver other improved technologies and services to farmers in the future.

CASSAVA PRODUCTIVITY THROUGH MECHANISATION AND AGRO-PROCESSING (CAMAP)

Project Goal

Cassava Mechanisation and Agro-processing Project (CAMAP) aims to improve cassava productivity, increase efficiency in agronomic operations, reduce drudgery as well as create market linkages for smallholder farmers in three project countries (Nigeria, Zambia, and Uganda). The project is facilitating best-bet production practices among farmers by promoting the planting of improved stem varieties, timely weeding, fertiliser, and herbicide application. With a view to providing a sustainable environment for cassava mechanisation in the partner countries, the project has initiated mechanisms to build and support agro-service platforms which provide commercial mechanisation operations to farmers and training service providers on enhanced mechanisation delivery and efficiency. In line with the agribusiness concept of the project, farmers are being linked to existing markets to stimulate a functionally efficient supply and demand chain for cassava. The project, therefore, builds a strong pull effect to strengthen needs for increased production. The project works along the whole value chain while also addressing gender issues to meet other project goals like improved income and employment for youths and women.

Project Objectives

- Negotiate access and transfer of cassava mechanisation and agro-processing technologies for use by smallholder farmers
- Increase cassava production through mechanisation across the entire value chain and thus reduce post-harvest losses and demand for intensive labour.
- Add value to the cassava industry through value addition and the creation of market linkages between smallholder farmers and agro-processing centers,
- Build the capacity of local entrepreneurs to design prototypes machines, manufacture, maintain and repair equipment for planting, harvesting, and processing cassava.
- Expand the utilisation of safe, quality, diversified, value-added cassava products and derivatives.

The Problem

Cassava is a staple crop for 500 million people in Sub-Saharan Africa (SSA), with Nigeria accounting for 55% of the world's cassava production. Although Nigeria is the highest cassava producing country in the world with over 40 million metric tonnes, the output per unit area is still very low (9–12 tons/ha) as compared to over 25 tons/ha recorded in Asia and Latin America. The yield level on farmers' fields (for landraces and improved varieties) has remained very low in SSA due to inefficient production systems. Cassava production in Africa predominantly remains manual and labour intensive and employs traditional tools in all operations. One of the key constraints to cassava production in Africa is the lack of mechanisation or appropriate production and processing tools. This remains laborious to women and less attractive to the youths who want to go into cassava production. Yet market opportunities for cassava in Africa are limited compared to other cassava-producing regions. This situation has hindered value addition because it is farmers who have access to markets that are likely to adopt technologies that enhance productivity.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

Project Overview

Mechanisation of cassava production and processing has been identified as the most critical constraint to the development of the cassava sector in Africa. High labour requirement for cassava production operations includes land clearing, land preparation, planting, weeding and harvesting. These high labour requirements of cassava production come with high costs over a long growing season that makes cassava production less attractive to farmers, especially youths, compared with other staple crops that are less labor-intensive and require less operational costs. Other high operation costs are those related to transportation, storage, and post-harvest processing. To address the problem, the New Partnership for Africa's Development (NEPAD) has launched the Pan-African Cassava Initiative, while several countries, such as Nigeria and Ghana, have started national initiatives to promote the use of cassava in industries. Cassava for large-scale use, such as the mandated incorporation of 10 percent cassava flour in wheat flour for bread making in Nigeria, requires many small-scale cassava processing units. However, the existing capacity for manufacturing cassava processing equipment is limited, and unless it is upgraded, Africa's farmers and entrepreneurs are unlikely to benefit from the new market opportunities. The project, therefore, aims to stimulate cassava mechanisation along the product value chain to ensure increased production and value addition and, on the other hand, reduce post-harvest losses. Improving cassava production systems will be critical to maximizing its full potential as a cash crop, especially for smallholder farmers.

AATF Intervention

AATF is negotiating access, building capacity for local fabricators, backstopping enterprise development, providing stewardship of the technologies, deploying, and creating market linkages through CAMAP. AATF has been providing resources for the project development, testing of the technology, overall partnership management, business enterprise development, and market linkage expertise. Manufacturers in regions with appropriate technologies but who are reluctant to supply equipment to African businesses for fear of piracy and subsequent loss of market have been approached. They have shown interest in partnering with African entrepreneurs to produce high-quality equipment.

CAMAP is a value chain approach to addressing constraints faced by smallholder cassava farmers in which not only mechanisation and agro-processing is involved, but it is a systems approach where there is the use of improved high-yielding and disease-resistant cassava varieties, and best agronomic practices (including optimum plant density, fertiliser and herbicides application, weeding, scheduled dates for planting and harvesting) is incorporated into the mainstream project activities. Through market linkages, CAMAP is assisting in reducing post-harvest losses by over 80%, reduce labour drudgery by 90% and significantly increase farmer income from US\$700 – 900 per ha to US\$2,000 – US\$3,000 per ha.

Achievements

Mechanisation in the project countries

Nigeria: There has been tremendous progress in the implementation of mechanisation activities in Nigeria. As a sustainability strategy, Agridrive Ltd, a social enterprise, was formed to provide mechanisation on a sustainable business model. Thus, Agridrive Ltd has diversified into providing mechanisation services for cassava and other crop value chains like maize, sorghum, rice, and fodder crops. Farmers pay 100% for the mechanisation service provision. For the year 2020, a total of 14,551 ha of mechanisation operations were completed in Nigeria. Yields have continued to be very high compared to those from manual processes, with some farmers getting over 35mt per ha.

Zambia: Over 285 ha of cassava mechanisation was covered in Zambia in 2020. The mechanisation operations included ploughing, harrowing, herbicide application, and harvesting. Cassava is a precious enterprise in Zambia, and we have seen some investors now investing in processing.

Uganda: Work progressed well in Uganda with more farmers patronizing mechanisation service provision. We also had farmers accessing mechanisation services for other crops. A total of 220 ha of mechanisation operations were done in Uganda. Farmers also managed to get some revenue from the sales of cassava stems, some of which were sold to farmers coming from Rwanda

Challenges and Lessons Learnt

The challenges faced during the year included the following.

- There were challenges resulting for the breakdown of equipment. This slowed the pace at which the work was done.
- We had problems of farm ownership disputes in Nigeria
- Security and COVID-19 slowed the pace at which the work was done resulting to less than anticipated hectareage covered.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

THE OPEN FORUM ON AGRICULTURAL BIOTECHNOLOGY IN AFRICA (OFAB)

Objective and AATF Role

The objective of OFAB is to contribute to the creation of an enabling environment for the development, uptake, and adoption of agricultural biotechnology to address the challenges faced by smallholder farmers in Sub-Saharan Africa (SSA). OFAB, therefore, facilitates constructive science-based conversations among stakeholders and decision-makers on agricultural biotechnology. OFAB convenes engagements between scientists, policymakers, and farmers to enhance confidence in the safety and benefits of modern biotechnology.

Specifically, OFAB:

- Establishes and manages a range of platforms to enhance understanding of biotechnology in agriculture for productivity.
- Contributes to informing policy decision-making processes on agricultural biotechnology by providing factual, well-researched, and scientific information.
- Forges strategic alliances for optimisation of resources through convening and encouraging inter-institutional networking and knowledge sharing in the agricultural biotechnology space.
- Enhances targeted capacity strengthening that will improve communication across all sectors interested in biotechnology for African agricultural development.

The Problem

AATF established OFAB in recognition of the potential that biotechnology offers towards agricultural development in SSA and the need for its active participation in creating an enabling environment for the adoption of new technologies by smallholder farmers in order to support it effectively implement its strategies and catalyse change in African agriculture. Agricultural biotechnology is least developed in Sub-Saharan Africa (SSA).

Achievements

OFAB is globally recognised as a credible biotech advocacy and influencing platform in SSA and has built a global network to bolster its advocacy and communication efforts in Africa. From one Chapter in 2006, OFAB has grown into a network of Chapters in Kenya, Nigeria, Ghana, Uganda, Burkina Faso, Tanzania and Ethiopia. Additionally, OFAB is a founding member of the Corneli Alliance for Science (Afs). OFAB has over the years trained over 400 journalists in science and fact-based reporting, accompanied commercialisation and environmental release in Kenya and Nigeria. OFAB has been critical in advocating for the improved biosafety environment in all the OFAB Chapter Countries.

AATF advocacy platform significantly contributed towards creating an enabling environment for biotech uptake in SSA. OFAB successfully engaged grassroots communities on the benefits and safety of GMOs through a sustained community mobilisation program in collaboration with relevant local bodies in target countries. OFAB raised additional funds to drive up its advocacy efforts at the grassroots and 'grass tops' (policy advocacy). It has leveraged resources from partner institutions to expand its reach.

As part of its high-level policy outreach activities, OFAB organised a high-level conference on the use of Science, Technology, and Innovation (STI) in harnessing African agricultural transformation in Kampala, Uganda, on 27-29 September 2017. The event brought together several high-level policymakers, including Uganda's Prime Minister, Agriculture Minister, and Science, Technology, and Innovation Minister. Over 150 delegates from all over the world attended the meeting. The conference created the necessary momentum that led to the passage of the Uganda Biosafety Bill 2012 into an Act of Parliament.

OFAB's work with the media has increased biotech awareness and knowledge in the OFAB Chapter countries.

Complementing the work with the media, OFAB has since 2017 successfully held the annual OFAB Africa Media Awards (OMAS), which celebrates and recognises excellence in science journalism in Africa. The yearly Media Awards by the project is conducted first at the country level (in each of the seven chapters), and winners from three categories: Television, Radio and Print, and Online from the chapters compete for the overall Africa-wide award that is held annually. The OFAB Africa Media Awards has contributed immensely to enhanced quality and frequency of media reporting on biotechnology in Africa while at the same time building the capacity of journalists to understand agricultural biotechnology and improve evidence-based policies on agricultural biotechnology in the continent.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

A book on OFAB successes over the last ten years, OFAB: A Decade of Success, 2006–2016, was officially launched by the Ugandan STI Minister.

The current phase of the Project started in September 2019 for five years. The project is focusing on:

- Policy Change: Conducive policies and systems to allow environmental release and commercialisation of GM products in at least four Sub-Saharan Africa (SSA) countries (Kenya, Uganda, Tanzania, Burkina Faso);
- Policy Implementation: Successful and sustainable implementation of policies and systems providing an enabling environment to support commercialisation of GM products in four (Ethiopia, Ghana, Mozambique, Nigeria) countries by 2024; and
- Information Sharing: Sustained biotech awareness, information and knowledge sharing to build positive momentum in SSA.

Challenges and Lessons Learnt

- Political will (political support) for biotech has been found critical for biotech adoption. AATF has intensified high-level policy advocacy and communications campaigns to mobilise political goodwill and support for biotech through OFAB. Efforts are being made to enhance high-level outreach through engagements to build visibility and inclusion in decision making.
- Grassroots support for biotech is vital for two reasons: boost the confidence of policymakers to support the technology and back up their support with science-based policies. AATF made a strategic decision to engage grassroots communities on the benefits and safety of GMOs through sustained community mobilisation programs through OFAB in Kenya, Uganda, Tanzania, Ethiopia, Burkina Faso, Ghana, and Nigeria. Information sharing with the grassroots has been critical in enabling the farmers to demand GMO products which would address their particular farming challenges.
- The media (mass and social) support for biotech is a strong booster of public acceptance of biotech products. Proactive engagement and capacity strengthening of journalists on science reporting is helping in building informed and empowered reporters. Involvement of project communications staff at AATF and country levels in advocacy has helped to expose them to a bigger perspective on biotech and have also given them a chance to communicate issues raised in outreach efforts to a wider public (masses) for awareness creation and transparency, i.e., CFTs in Kenya, Uganda, Tanzania, and Mozambique.
- Advocacy is an expensive exercise that requires adequate resources to undertake and achieve desired results. As mentioned above, OFAB raised additional funds to drive up its advocacy efforts at the grassroots and 'grasstops' (policy advocacy) levels. Efforts for more funding are ongoing and leveraging resources from partner institutions to expand its reach. Advocacy also takes a long, and success is not easy to realise in most countries.
- The anti-biotech movement has been globalized, and efforts to counter it ought to be globally networked as well, but with a strong local presence and action. OFAB has built a global network to bolster its advocacy and communication efforts in Africa. OFAB is also working on building partnerships and alliances, which are critical in addressing the GMO adversarial efforts by Antis. To reduce public distrust of government institutions due to the history of compromise on the part of its officials, AATF has encouraged officials to engage with media more often to showcase their capacity to regulate GM technology. Endorsement of biotech by National and regional trade associations, farmer organisations has also significantly helped to boost chances of acceptance of GM technology.

DEVELOPING HYBRID RICE FOR USE BY SMALLHOLDER FARMERS IN SUB-SAHARAN AFRICA

Objective

The hybrid rice project aims to improve food security and rural livelihood among African small-scale rice producers by developing hybrid rice, with its significant yield advantage, and create sustainable hybrid rice agro-businesses to support rice farming in East, West, and Southern Africa. Over a 15-year period, the project expects to enable African researchers and seeds producers to reach 500,000 rice farmers with hybrid rice that delivers a yield advantage of at least 1 ton per hectare over the most competitive inbred varieties.

The Problem

Rice (*Oryza spp*) is an important staple food and a commodity of strategic significance across much of Africa. Driven by changing food preferences in the urban and rural areas and compounded by high population growth rates and rapid urbanisation, rice consumption in SSA has increased by 5.6 percent per annum over the years, less than double the rate of population growth. However, the area under rice production in SSA has stagnated at about 8 million hectares producing about 15.5 million tonnes per year against an annual consumption of 27 million tonnes. These production and consumption trends imply a production deficit of about

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OBJECTIVES AND ACTIVITIES (CONTINUED)

11.5 million tons per year valued at US\$ 4 billion that is imported annually. Thus, the rice production deficit presents a great development challenge to governments and development agencies in SSA. The slow growth in domestic rice production has been attributed mostly to the very low yield being achieved by rice farmers in SSA. In addition, poor agronomic practices, insufficient private sector investment in rice seed production, non-competitiveness of locally produced rice, low capacity in technologies that can improve productivity such as hybrid technology, high production cost and poor quality are also among the challenges that makes it difficult for SSA to meet the rice need of the continent. In order to meet the increasing demand for rice consumption, there is the need to deploy technology like rice hybrids that are capable of enhancing yield per hectare to boost local rice production as well as help in building viable agri-businesses along the whole rice value chain.

AATF Intervention

AATF is working with public and private partners to develop indigenously bred rice hybrids that are well adapted to the growing condition in Africa and with a significant yield advantage. The partnership is developing 2-line rice hybrids and parental lines alongside the development of an information technology tool with interpolated weather surfaces to predict temperature regimes required for the management of 2-line hybrid rice production risk. The project is being managed by AATF in a way that ensures that technology partners focus on their technical work and that the outputs of the project contribute to global public goods. AATF is also providing a connection to the African seed sector researchers and seed firms. AATF delivers an in-depth understanding of African seed companies and the NARS; and provides links between the partners - Hybrids East Africa Ltd (HEAL), and the researchers and seed firms that the project trained. As part of the efforts towards using the hybrid rice technology to increase rice production in SSA and enhance business linkages in the rice value chain, AATF has brought together private companies and public institutions, such as AATF/HEAL, Advanta, Afritec, Bayer, International Rice Research Institute (IRRI), Africa Rice Center (AfricaRice), National rice programs and other SMEs to achieve greater impact and create synergy for promoting, marketing and commercialisation of hybrid rice technology for the benefit of African farmers. This initiative is a Public-Private Partnership (PPP) known as the Alliance for Hybrid Rice in Africa (AHyRA).

Achievements

The project has led to a change in practice on hybrid rice systems in Africa, wherein indigenous rice hybrids are now being developed in Africa by African companies for use in Africa. This is in comparison to the former practice of importing hybrid rice developed outside Africa for evaluation in Africa. Four seed companies (local and regional) that had never been involved in rice production before are now involved in the testing of the rice hybrids as potential crops for the diversification of their crop portfolio. In this regard, the companies have already acquired the parental lines from the project and are currently conducting performance tests in Tanzania, Nigeria, Ghana, Kenya and Zimbabwe. A total of 8 rice hybrids with a yield as high as 10 tons/ha were commercially released, out of which 5 were released directly through the project and three were released by the project commercial partners. These rice hybrids have been allocated to private seed companies for seed production and marketing. In addition, the project has a new set of 8 rice hybrids that were tested in National Performance Trials (NPTs) between 2019 and 2020; the result the NPT showed that this set of rice hybrids yielded as high as 12 tons/ha, which is about 20% higher than the earlier released ones. The Alliance for Hybrid Rice in Africa (AHyRA) was also launched to enhance the production and promotion of Hybrid rice varieties by strengthening public-private partnerships among major stakeholders. Since its inception in 2019, AHyRA, has been promoting the wide development and dissemination of quality, high yielding, and well-adapted rice hybrids in the region. It is also developing and improving delivery and commercialisation pathways for hybrid rice towards strengthening the rice value chain through the extensive use of hybrid technology. AHyRA is already facilitating business linkages between seed companies with capacity for breeding and seed production and those with little or no capacity for such activities but having market reach for the sale of the seed of Hybrid rice. For example, is FreshCo contracted Afritec to produce hybrid seed for them. For sustainability, the capacity of four private seed companies has been enhanced for hybrid rice development and commercialisation in SSA.

Expected Impact

- Development of 2-line hybrid rice germplasm that is adapted to African conditions.
- Increased yields of at least one ton over the best commercial varieties available for use by smallholder farmers.
- Development of skills of seed companies in 2-line hybrid rice technology
- Development of web-based IT tool for predicting hybrid rice production environment
- Promote and build business linkages for hybrid rice along the rice value chain

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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

Challenges and Lessons Learnt

Scouting for new land for Small Scale Seed Production in the coast region of Kenya to replace the current land constantly flooded seasonally was not as easy as thought because of restrictions in movement caused by COVID-19 Pandemic. However, we are already working with the Rice Promotion Unit of the Kenyan Ministry of Agriculture towards securing a suitable location on the coast. Also, funding for the project will end in April 2022. Discussion around future funding for the project has already started at the informal level with different potential investors.

Key Benefactors of Project

The key benefactors are seed companies, scientists, rice farmers (male and female), millers and Research Institutes in Africa.

SEEDS2B / PASTTA PROJECT

Objective

The Seeds2B / PASTTA Project aims to engender agricultural transformation in Sub-Saharan Africa (SSA) by leveraging public-private partnerships to bridge the gap between breeders, technology owners, local seed companies, smallholder farmers, and off-takers in SSA. The project's purpose is to develop and implement scalable business models that will enable technology donors across the globe, from the private and public sectors, to license appropriately improved crop cultivars to seed companies in SSA. By adding new commercially viable products to the portfolios of local seed enterprises, the Seeds2B Project helps smallholders in the region to sustainably access improved seed through licensing model and therefore serve existing and new markets with the best of locally grown produce.

The Problem

Limited smallholder farmer-access to quality seed of a range of new, improved varieties of key cash and subsistence crops presents a major bottleneck to food security and rural household incomes in sub-Saharan Africa (SSA). Adoption rates of improved crop varieties remain low across the region. This situation persists despite increased global public and private investment in the development of innovative, improved crop cultivars with the potential to address challenges faced by smallholders in SSA. Scalable business models that sustainably expedite smallholder access to quality-assured planting materials of such improved crop cultivars is critical for the enhancement of agricultural productivity in SSA.

AATF interventions

Facilitated by the Syngenta Foundation for Sustainable Agriculture and USAID, AATF is developing scalable business models founded on equitable public-private partnerships to expedite access and commercialisation of quality seed of new better-performing, locally adapted, and market-appropriate crop cultivars to smallholder farmers in SSA via local seed enterprises. The Foundation is focused on enhancing yields of non-core crops with significant local demand and high-value vegetables. Through the Seeds2B Project, AATF aims to contribute towards improving smallholder productivity, facilitating returns on investments in crop breeding for technology owners, and enhancing the business performance of Africa's seed enterprises.

AATF will negotiate on behalf of seed enterprises in Africa for access to appropriately improved crop cultivars and facilitate varietal release/registration processes, multiplication of basic seed, and licensing. The Foundation will also oversee the management of ensuing business relationships between participating local seed enterprises and technology owners to ensure benefit for all project partners and, more so, smallholders in SSA. Supported by AATF, participating seed enterprises will impart sustainability to the project by availing improved seed varieties to farmers. The local seed enterprises will benefit from reaching new markets through an expanded variety catalogue and targeted promotions. The Foundation will also facilitate the recovery of investment to technology owners through licensing leading to enhanced returns on investments in technology development. The returns will either be monetary or non-monetary in nature, depending on the mandate of the technology owner. While financial returns will primarily be realised as seed royalties, non-monetary returns will be in the form of technology adoption promotion and data on farmer livelihood enhancement on technology adoption. AATF and local commercial partners will promote commercially viable products accessed by the project to farmers. This will be carried out during on-farm trials demonstrations and open days in research fields. The Foundation will also carry out capacity enhancement on best agronomic practices towards ensuring that farmers benefit from adopting products commercialised by the project.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

AATF will sustainably scale the seeds2B concept across SSA by implementing a scalable business-based approach to technology transfer and promotion of farming as a business.

Achievements

The Seeds2B Project identified four crop value chains that were economically feasible for commercialisation in Zimbabwe in line with the project objectives. These were Tomato, Millet, Sorghum, and Soybean. Seed company independent trials were conducted by both national and multinational seed companies. The trials were implemented in the field stations of the companies and in farmers' fields. The companies evaluated top varieties of sorghum, pearl millet, and tomato hybrids identified for their promising performance from earlier trials conducted in the project.

The small-scale (pre-commercial screening) trials conducted were aimed at identifying high potential commercial leads selected for good field performance and high market demand. In line with the project scheme and local seed regulations, the identified commercially viable cultivars from the small-scale trial (SST) were nominated for medium-scale (pre-commercial registration) trials to meet regulatory variety release and registration requirements. Screening trials (SST) were done over two cropping seasons, while the medium-scale trials (MST) are typically implemented over three consecutive seasons. Local seed enterprises were engaged within the project to select their most preferred commercial leads after one season of independent seed company trials.

The project in Malawi conducted series of activities, including advanced yield evaluation and on-farm trials for soybean, groundnuts, cowpea, tomato, and pigeon pea varieties. Two outstanding varieties of groundnut and one soybean variety were released and are now being commercialised in collaboration with the private sector.

In Uganda, the project is undertaking five broad activities: (a) Adaptation trials for selected promising varieties of soybeans and tomatoes; (b) Variety promotion and marketing trials for beans and groundnuts; (c) Early generation seed multiplication for beans and groundnut varieties (d) licensing of seed technology to private seed companies and (e) Simplifying policy issues around obtaining marketing consent and protecting commercial varieties. So far, the project has registered and currently commercializing 10 new varieties (5 bean, 3 soybean and 2 groundnuts). National Performance Trial (NPT) for tomato varieties and soybean varieties to obtain regulatory data for the release of outstanding varieties is underway. Multiplication of early generation seed and marketing trials for the released varieties of beans and groundnut varieties is being carried out.

Expected Impact

- Access to quality seeds leading to improved yields, increased household income, better livelihoods, and food security for African farmers.
- Strengthened African seed systems through increased competition, better quality seed, higher seed volumes, stronger market linkages, and increased income/ profits, fostering a virtuous circle of investment in African seed companies.
- Effective link with untapped markets in Africa for international technology owners leading to more returns on their investment in technology development.
- Reduced barriers to trade and investment in the African seed industry.
- Enhanced capacity for partner institutions, particularly national agricultural research systems and technical trial partners, on technology transfer and seed business management.

Challenges

The full potential of the trial entries may not have been achieved during the evaluations due to unprecedented drought, COVID-19 Pandemic and floods as well as elevated disease and pest pressure which negatively affected trial outcomes. These stresses were brought about by global climate change. Engagement of trial partners with irrigation capacity and limited trial establishment during affected seasons were strategies applied to manage associated risks.

MLN DIAGNOSTICS AND MANAGEMENT PROJECT

The Problem

Caused by synergistic infection of the Maize Chlorotic Mottle Virus (MCMV) and any of the Potyviruses infecting cereals, the Maize Lethal Necrosis (MLN) disease is among main challenges affecting maize production in Sub-Saharan Africa since its first detection in 2011 in Kenya. The disease causes yield losses of up to 100% (De Groote et al. 2016), thus raising food insecurity and affecting grain

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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

trade. Epidemic modelling predicts probable outbreaks in the entire SSA, including Southern and Western Africa (Isabirye et al., 2016) if the disease is not kept at bay.

Objective

The USAID-funded MLN Diagnostics and Management Project coordinated by the International Maize and Wheat Improvement Centre (CIMMYT) and co-implemented by AATF and the Alliance for Green revolution in Africa (AGRA) has 3 main objectives; (i) to prevent the spread of MLN, especially Maize Chlorotic Mottle Virus (MCMV), from the MLN-endemic countries to non-endemic countries in Sub-Saharan Africa; (ii) to Support the commercial seed sector in the MLN-endemic countries in producing MCMV-free commercial seed and promote the use of clean hybrid seed by the farmers; and (iii) to establish and operate an MLN Phytosanitary Community of Practice in Africa, for sharing of MLN diagnostic and surveillance protocols, and best management practices for MLN control in Africa. AATF implemented the second objective which is mainly to support the commercial seed sector in target countries (Kenya, Uganda, Ethiopia, Rwanda and Tanzania) to produce MCMV-free seed, as well as promote the use of clean certified seeds by farmers in respective countries.

AATF Interventions

The project's bedrock was AATF's vast network of seed stakeholders including the private sector and National Breeding Programs across the 5 target countries. During the inception of the program, AATF in collaboration with seed stakeholders in respective target countries developed harmonised standard operating procedures (SOPs) specific to on-farm MCMV-free seed production and MLN management (available in the MLN disease portal <http://mln.cimmyt.org/>). The proven SOPs were appropriately refined and adapted to suit respective countries' geography, existing seed laws, governance, and local agricultural practices. AATF has since continued to provide technical backstopping including numerous trainings and meetings to relevant seed stakeholders in target countries to efficiently execute the MLN management SOPs. AATF also actively participates in the MLN Community of Practice (COP) in Africa which was formed and operational since 2016.

Summary of Achievements

- Promoted use of 12 MLN tolerated varieties by establishing 5 demo plots in MLN hotspots in Kenya
- One farmer field day was organised in Narok themed "Promoting Elite Climate-Smart Maize Varieties for MLN Management," where 142 participants attended including farmers, Ministry of Agriculture, seed companies and the local government. One variety taken up by a seed company for bulking.
- 600 rapid diagnostic kits (RDKs) were distributed to respective seed companies during the training sessions to improve MLN surveillance activities in seed production fields.
- 300 maize seed out-growers trained on execution of MLN Management standard operating procedures (SOPs) to produce MCMV-free seeds.
- Developed and distributed 4000 Information, Education and Communication (IEC) materials on MLN Management in target countries. Translations made in Amharic and Swahili
- Article titled 'Maize Lethal Necrosis (MLN): Efforts toward Containing the Spread and Impact of a Devastating Transboundary Disease in Sub-Saharan Africa' was published in Virus Research journal - 282 (2020) 197943
- Currently (January - September 2021) AATF was contracted by CIMMYT to conduct MLN learning study and produce a synthesis report. The main objectives of the MLN learning study are:
 - Summarise and provide a synthesis of the MLN program evaluations, survey reports, special studies reports, etc.
 - The MLN synthesis report will ensure that the involved partners learn from the work previously done and how the project made the difference from the efforts and investments that were put in place towards the containment of the disease in Sub-Saharan Africa.
 - The results of this exercise are primarily intended to inform future improvements and to transfer learning across the network of partners for future project designing and implementation, as well as responses to the outbreak of other diseases

Lessons Learnt and Challenges

- Slow up-take of MLN tolerant varieties by seed companies and consequently minimal access by farmers. Aggressive licensing and rapid scale-out strategies are required to address this challenge, especially leveraging on TAAT Maize activities.
- The project ended; however, the MLN disease is still a challenge with new fresh outbreaks reported in the target countries

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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

DEVELOPMENT AND TESTING OF TRANSGENIC POTATO FOR RESISTANCE TO BACTERIAL WILT USING pflp AND EFR GENES

Objective

The main goal of this project is to develop transgenic potatoes of the farmer-preferred variety with field resistance to bacterial wilt. The project is presently focused on demonstrating proof of concept of the efficacy of transgenes in the control of bacterial wilt in potatoes. The aim of the Bacterial Wilt Potato Project is to modify at least one farmer-preferred variety with the following specific objectives of the project:

- To develop a gene construct with the pflp, and EFR genes under the control of the 35s promoter and the nptII selectable marker gene
- To produce and identify at least 30 transgenic events from each of the variety 'Shangi' and 'Jalena' bearing the pflp gene alone, and a molecular stack of pflp + EFR genes.
- To assess resistance to bacterial wilt of the best transgenic events bearing the pflp gene alone, and the pflp + EFR genes in the greenhouse.

The Problem

Potato is an important food and cash crop in Africa that is also an ideal food security crop due to its year-round production. However, its production is hampered by bacterial wilt (BW) disease caused by the soil-borne pathogen, *Ralstonia solanacearum*. An investigation into the potato production system in Kenya, Uganda and Ethiopia identified that bacterial wilt (BW), seed quality and soil fertility management are among the key constraints that must be addressed to improve potato yields (Gildemacher et al., 2009). CIP and national potato experts estimated a 40% adoption of a BW-resistant potato resulting in an average 30% yield increase after a 10-year period of adoption lag time (Hareau et al., 2014). However, probability of successfully developing tolerant/resistant potatoes was estimated to be 50% through conventional breeding. A much higher probability for a biotech potato since the level of resistance will be much higher, durable, using an existing popular potato variety which will also lead to higher adoption level among farmers since it is already preferred.

AATF interventions

Genetic engineering offers the advantage of introducing genes of any kind directly into a farmer-preferred variety. Not only that it overcomes species sexual incompatibility barriers it averts decades of breeding cycles involving crosses required to reduce the linkage drag of negative alleles from un-adapted varieties or wild species. Sweet pepper genes *hrp* and *pflp* genes, when transferred into potato and tomato respectively, were shown to enhance resistance against *R. solanacearum* (Huang et al., 2007; Huang et al., 2011). Hence, AATF partnered with CIP to transfer *Pflp* gene into at least one farmer-preferred variety and test in laboratory and greenhouse conditions to determine whether the genes confer bacterial wilt disease resistance in potato. The Project is using the farmer preferred Shangi variety that is known and grown by more than 75 percent of potato farmers in Kenya, and also has a good transformation efficiency. 'Shangi' is also reported to have spread to neighbor countries lately. It has oval tubers with cream skin and white flesh and very short, if any, dormancy. The crop has medium maturity (3-4 months) and a low yield (30-40 t/ha).

The specific AATF interventions include:

- AATF accessed license for the genes and has the responsibility for IP management.
- Core funding support to the partnership for product development
- Provide advisory on regulatory activities by identifying necessary legal and regulatory gaps, including existing or missing guidelines, and enhancing them.
- AATF sits on the Technical Advisory Committee to review results and project progress.
- AATF chairs the project OPSCOM.
- Leading the stewardship component of the project.
- Achievements
- Approval from NBA: Contained use activity of resistance genes to BW in potato: NBA/GMO/C09/18/31 (26th January 2018 to 26th January 2023).
- Propagation of in vitro of 'Shangi' variety was carried out and is maintained at CIP-Beca.
- 94 transgenic events have been confirmed to have pflp gene and no backbone vector sequences.
- RNA extraction and cDNA synthesis has been done on all the 94 putative events for confirmation of pflp gene integration and to determine the correlation between pflp expression level and tolerance to Bacterial Wilt and affects to yield.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

- Four rounds of greenhouse bioassays were conducted between 2019 and 2020 to test the level of resistance of the transformed plants to bacterial wilt in comparison to the tolerant control 'Cruza-148'.
- Based on the bioassays of transgenic events and latent infection tests, three transgenic events with pflp gene (Sha 198, 238 and 258) showing better tolerance to *R. solanacearum* compared to Cruza-148 were identified.
- Following the challenges experienced in creating a stacked gene construct with EFR and pflp meant for Shangi transformation, EFR-Ipora events with tolerance to bacterial wilt were sourced from Uruguay as a substitute to Shangi and subjected to yield assessment through which preliminary observation showed that Ipora-EFR has lower yield than Ipora non-transgenic.

Crucial Statistics

The east and central Africa region is an important potato growing region with a combined total cultivated area estimated at 740,000 ha largely dominated by small-scale potato farms where the same diseases cause substantial production losses.

Potato cultivated area in Ethiopia was estimated at 300,000 ha in 2016 and is predominantly grown during the minor season with the possibility of extension into the main season when using disease-resistant varieties. In Kenya, BW is found on 74 percent of the farms and can cause yield losses of up to 100 percent, according to the Seed Potato Subsector Master Plan for Kenya. Similarly, in Ethiopia, Bacterial Wilt disease is widespread. The crop has received increasing interest by farmers as it showed price resilience during the food price crisis of 2007/8.

Challenges & Lessons Learnt

The stacking of EFR and pflp genes in one construct encountered technical difficulties, and hence, it was postponed to a later time. Following this, transgenic events of Ipora variety containing the EFR gene were sourced from Uruguay to substitute the stacking of EFR and pflp.

QUALIBASIC SEED COMPANY (QBS)

AATF also works to address some of the obstacles to technology access and delivery across the food value chain from research, production, processing to market linkages. A priority area is to improve Africa's seed system, where one bottleneck is foundation seed supply. In 2017, to address this bottleneck, AATF established and is currently incubating a foundation Seed company called QualiBasic Seed Company (QBS) with the support of BMG. This will help to mitigate the problem of Foundation Seed supply, a vital missing link in the maize seed value chain in most SSA countries. Currently AATF is holding the shares in trust with the agreement to divest its shares to future shareholders by 2022. Currently there is a review to determine the optimal capital investment and shareholding and later there will be a process to solicit and bring new shareholders onboard. The aim is to have seed companies (current customers of QBS) to form majority of the new shareholders. In this review, there is a high likelihood that AATF will retain a shareholding of between 10-20% as compared to its current shareholding of 99%.

Problem and AATF Intervention

The supply of early generation seed and more specifically, foundation seeds had been a significant bottleneck to the sustainable production of improved seeds of various crops for the benefit of smallholder farmers in Sub-Saharan Africa (SSA). In an effort to address this problem, the African Agricultural Technology Foundation (AATF) is incubating and nurturing a commercial for-profit company which specializes in the production of quality foundation seeds, modelled along the same lines as other successful foundation seed entities from other parts of the world. The company's name is QualiBasic Seed Company (QBS). AATF is the shareholder and provides incubation services in Sales & Production, Legal & Secretarial services, HR, ICT, Communication and Finance. In addition, it works with seed companies to demonstrate the benefits of hybrid seed to farmers to stimulate increased demand for hybrids leading to increased demand for foundation seed from QBS.

Achievements, Challenges, and Lessons Learnt

The sales trend shows firm growth in foundation sales by QBS over the years. The 2020 maize foundation seed sales of 85mt grew by about 33% from last year 2019. Although the targeted sales of 115mt were not achieved, the annual growth in quantity sold is projected to continue in 2021. 92% (78mt) out of the 85mt sold were bought by 20 repeat customers out of the 33 customers supplied with foundation seed. This shows high confidence in QBS foundation seed and services. It is encouraging that the business managed to secure orders from 13 new customers in 2020. Besides retaining repeat customers, QBS will continue to look for new customers in East and Southern Africa.

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OBJECTIVES AND ACTIVITIES (CONTINUED)

In addition to Maize EGS, QBS produced 2.34mt of field bean foundation seed in 2020. To diversify revenue streams, QBS toll processed 1,056mt of maize certified seed on behalf of some of its customers. This was possible because of excess processing plant capacity in Zambia. This is low-risk process with good margins and should be continued whenever there is an opportunity to do it. The total revenue achieved by the business in 2020 was USD1,067,002, out of which 50% was from the sale of EGS (Core business). The contribution to revenue from EGS sales can be improved through the achievement of the sales targets and improvement in the average selling price.

Some seed companies were affected by the COVID-19 Pandemic and were not sure whether they were going to be able to produce seed; therefore, some reduced and/or cancel their orders. Generally, it is difficult to get foundation seed forecasts from small seed companies, which makes it difficult to plan production in advance and meet the demand on time. AATF will continue with its incubation services to QBS until the business attains profitability and self-sustaining level in the near future.

TAAT MAIZE COMPACT

The Problem

The maize crop is a leading staple crop and an essential source of calories and food security to over 300 million people in Sub-Saharan Africa (SSA). However, its production is impacted by a myriad of challenges, including erratic rainfall patterns due to climate change, pests and diseases. Elite climate smart maize hybrids have been developed through various breeding programs, including the Water Efficient Maize for Africa (WEMA) partnership, which has released over 120 drought-tolerant (Climate-smart) hybrids trademarked DroughtTEGO®. Efforts are required to ensure that farmers can access, adopt and use these varieties. Scale-up efforts need to be revamped, and more importantly, facilitation of market linkages for maize grain farmers to incentivize them to adopt these elite varieties. This will ensure that smallholder farmers are not only food secure, but they economically benefit by planting high-yielding Climate smart maize hybrids.

Objective

Funded by the African Development Bank (AfDB) under its Feed Africa Strategy (2016 -2025), the TAAT Maize Compact (TMC) aims to scale out and disseminate Water Efficient and other climate smart maize technologies from WEMA, DTMA, DTMASS, STMA, IITA and NARS breeding programs across 12 countries, with a possibility of expansion to other countries. The technologies are scaled out in collaboration with both the public and private sector, and notably, with significant participation of commercial seed companies. Initially, TMC began working in Kenya, Uganda, Tanzania, Ethiopia, Rwanda, Zambia, Zimbabwe, Nigeria, Cameroon, Ghana and Benin but has a potential of expanding to Togo, Democratic Republic of Congo and Central African Republic through AfDB leverage programs in 2021.

AATF interventions

AATF directly implements TAAT Maize activities in East and Southern Africa while IITA implements activities in West and Central Africa. However, AATF conducts the overall coordination of the maize value chain. In-country supervision is conducted by appointed National Agricultural Research Systems (NARS) personnel (TAAT Maize NARS Leads) in respective countries.

AATF, through its expertise in deployment and in consultation with key stakeholders in maize production, has identified proven high yielding maize varieties, which were earlier licensed to partner seed companies under the WEMA project, DTMA & other breeding pipelines and facilitates scale out activities such as field demonstration plots establishments, field days, distribution of small seed packs and conducting good agricultural practices (GAP) and post-harvest management trainings in a bid to stimulate interest and adoption by farmers, hence motivating seed companies to produce more seed due to the high demand created by AATF and its partners.

Notably, AATF engages farmer groups and leverages on ongoing programs to facilitate market linkages for farmers who have adopted the promoted Climate Smart hybrids so that they can sell surplus produce with ease at profitable prices. This strategy is in efforts to incentivize farmers to adopt these varieties due to the promise of markets for their surplus production.

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TRUSTEES' ANNUAL REPORT (CONTINUED)

OBJECTIVES AND ACTIVITIES (CONTINUED)

Summary of Achievements and Impact

The primary beneficiaries of maize technology transfer efforts are smallholder farmers. The maize compact endeavours to involve women and youths in the maize value chain aiming at increasing their participation by 20% and 10%, respectively. The Maize Compact identified and deployed 8 maize technology toolkits to increase productivity of maize by 30% across the target countries.

Through its PPP, the Maize Compact has currently reached 2,397,108 direct beneficiaries with climate smart maize hybrids commercialised, and accompanying, field days, open days, hands-on training sessions and small seed packs distribution, etc. In partnership with 62 seed companies and other partners, the Maize Compact has so far facilitated the establishment of 4,888 demonstration plots, conducted 832 field days, distributed 101,321 free small pack seeds to boost the scale up of over 21,983 tons climate smart maize seeds produced in partnership with the seed companies.

The TAAT Maize Compact also facilitated the deployment of 38,270 litres of Fortenza Duo (FD) seed treatment in Southern Africa (Zambia and Zimbabwe) to control the Fall Armyworm (FAW) menace which is a huge hinderance to maize productivity. The FD deployment was done working with 14 seed companies to treat 6,598 tons of climate smart maize hybrids, expected to reach over 659,000 farmers. Worthwhile to note, yield data collected in 2019 by the TAAT Maize team showed that FD treated seeds had a yield advantage of about 1.6t/ha over the non-FD treated seeds.

Expected Impact

- Reach at least 2 million households; 12 million farm family members in the 12 countries.
- Increase maize productivity by at least 30%
- Enhance incomes by at least 20% for those households involved in the maize value chain
- At-least 20%-women and 10%-youth involvement in the maize value chain
- 12 million tons of maize grain generated from the Maize value chain

Key Challenge

- Budget cut within the TAAT Program and spreading of year 1 budget to cover 3 years of the program.
- Mitigation: Tapping into AfDB Country leveraged funds as well as the postponement of other activities to TAAT II
- Emerging challenges such as MLN disease and recently FAW discourage farmers from maize farming.

Mitigation: Training on disease and pest management practices to ensure farmers get optimum production, hence willing to continue with maize production. Accompanying FAW control technologies into the TAAT Maize toolkits ensures farmers can access these technologies with ease.

EU HORIZON 2020 BIO4AFRICA

EU Horizon 2020 BIO4Africa "Diversifying revenue in rural Africa through circular, sustainable and replicable bio-based solutions and business models is a consortium project where CIRAD is the lead and AATF is a subgrantee. It involves 25 partners, 4 countries, Uganda, Ghana, Ivory Coast, Senegal. The purpose is the transfer of simple, small-scale and robust bio-based technologies adapted to local needs and contexts, empowering farmers and rural communities to produce a variety of bio-based products and energy, improving the environmental, economic and social performance of their forage agri-food systems. ATTF (0.3 USD) will be involved in the needs analysis, technology screening, co-definition of technologies to be transferred with local farmers and communities and business model development.

EARLY GENERATION SEEDS (EGS)

With learnings and experience from the project and subsidiary QBS servicing Eastern and Southern Africa, the EGS Nigeria Project involves the set-up, registration, incubation and shareholding of a similar foundation seed for-profit company in Nigeria. Its purpose is to offer a commercially sustainable foundation seed supply solution to seed companies in Nigeria and potentially in the wider West Africa region. It will supply high quality foundation seed to ensure the subsequent production of quality certified seed by operating a centralised system that manages foundation seed production, quality control and storage, in a highly effective and efficient way. This model of doing business saves seed companies cost and seed production failure risks and builds a good reputation among end users.

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TRUSTEES' ANNUAL REPORT (CONTINUED)

STRATEGIC REPORT

The Trustees present their consolidated report and audited financial statements for the year ended 31 December 2020, which disclose the company's and group state of affairs.

Achievements and performance

AATF has made tremendous progress against performance indicators which include strengthening AATF's commercial pipeline, gender and inclusion, achieving and assessing impact at scale and financial sustainability. The following are highlights of the key achievements.

Operationalisation of Agridrive

Agridrive Ltd, is a social enterprise wholly owned by AATF to engage in various commercial ventures in the agricultural sector as a business platform that complements AATF's initiatives in agricultural development of Africa mechanisation services, inputs and agribusiness support to farmers in Nigeria. The mechanisation services include ploughing, harrowing, planting, herbicide application and harvesting and these services are being offered on commercial basis across various crop value chains.

Qualibasic Seed Company (QBS)

QualiBasic Seed Company (QBS) has now been in operation for just over 3 years. QBS is well recognised among its customers and other stakeholders including BMGF. Significant progress has been made in this respect with seed being sold to over 30 customers in 10 countries.

Enhancing capacity of seed companies in the commercialisation pathway of AATF products

AATF continued strategic engagements with private seed companies and conducted capacity building in several areas. A total of 106 companies were reached for various interventions.

Gender and inclusion

Mainstreaming Gender in AATF is guided by the 2018-2022 Gender strategy with specific activities and indicators outlined in the gender action plan. AATF has become gender-sensitive in business operations and project implementation, increasing gender reflections in reporting backed with data and high referencing during review and planning meetings.

Achievement for 2020

- i. Information Sharing.
A SharePoint page has been created on the AATF intranet platform to ease access to information regarding gender mainstreaming. The page on SharePoint gives access to, but is not limited to the Gender Strategy, Gender Action Plan, and Gender Audit Report generated last year. The SharePoint page will continuously be used to share information with staff on the theme.
- ii. Development of Gender training Manual.
As part of staff training on mainstreaming gender into AATF's programs/projects, a training manual is presently under development with Tanager. This manual is currently under review by the AATF Communications Team and will be accessible to all staff when complete for their individual development on gender. Once the manual is finalized, an e-module will be developed and embedded on the website for learning. This approach provides enhanced learning options to staff and their program/project partners on gender dynamics.
- iii. Concept Note Development.
One of the activities listed in the Gender action plan was to develop a concept note or proposal that explicitly addresses women empowerment in AATF's value chains. In this regard, AATF created a concept note with the primary objective centered on "women empowerment." This concept note titled Strengthening Cassava Value Chain Through Public-Private Partnerships (PPP) For Efficient Production and Natural Resource Management in Zambia, Nigeria, Uganda, and Ghana was submitted to USAID for funding but was unsuccessful.

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- iv. *Embedding gender in Socio-Economic Studies.*
AATF conducted a market study for the NEWEST Rice project in Ghana, Nigeria, and Uganda. The study's objective was to provide an in-depth understanding of the market dynamics within the rice value chain. This study was gender aligned as the information was presented with a gender lens. One of the key findings from this study was that there is a need to take on a value chain approach in implementing projects where the needs of men and women will be considered based on gender differences/issues.
- v. *Gender Champion on AATF Board.*
The proposed structure for gender mainstreaming in AATF outlines the need to have a gender champion on AATF Board for two main roles:
 - o To provide strategic guidance on the gender strategy
 - o Link AATF with gender-related resource mobilisation opportunities

We envision expanding opportunities in gender through working with gender champions identified across all projects. AATF considers gender mainstreaming as the responsibility of all staff. In this regard, all staff has been instructed to update their KPIs to reflect their contribution to this plan in their appraisal forms. Appraisal forms have now been updated to reflect this.

Challenges

The main challenge was the COVID-19 Pandemic and the restrictions enacted by governments that made it impossible for AATF to conduct a gender-based maize value chain analysis in Mozambique that was requested by the TELA Maize Project Team. This study was aimed at informing the implementation path for the project; the study has been deferred to when restrictions have been lifted.

Way Forward

- Finalize the gender training manual and e-module so that staff and partners can refer to it as soon as possible while mainstreaming gender.
- To conduct gender-based maize value chain analysis in Mozambique.

Implementation of the AATF strategy and business plan

The implementation of the corporate strategy is critical to meeting the set objectives of the organisation for the present cycle (2018–2022) in breaking new grounds and building on other milestones previously achieved to promote and sustain agricultural growth and development in Sub Saharan Africa. 2020 marked the midpoint in the implementation of the strategy and business, and despite the COVID-19 Pandemic disruptions, AATF continued to implement the 2019/2020 planned activities through the three objectives of the strategy with reasonable measures of success recorded below.

i. Strategic Objective 1: Diversify Agricultural Technologies Accessed for use in Sub-Saharan Africa

Through this strategic objective, AATF continued to direct its effort towards building a balanced project portfolio to ensure that initiatives towards boosting and growing the focus on non-seed-based and seed-based technologies were pursued. In terms of venturing into new impact areas, AATF had discussions with different potential partners to explore new approaches in nutrition, digital agriculture, and post-harvest in line with its expectations for the strategy.

ii. Strategic Objective 2: Accelerate Commercialisation of Agricultural Technologies

Commercialisation of AATF technologies continues to be an integral and critical part of the process of improved farmer livelihood. In 2019/2020, AATF continued to strengthen its technology delivery systems in the market by working with 7,015 value chain actors who include seed companies, agro-dealers, seed producers, grain traders, processors, transporters compared to 920 value chain actors in 2018/2019 to strengthen technology dissemination networks. Through our work in the Technologies for African Agricultural Transformation (TAAT) program, increased yields from farmers have created linkages to markets where farmers can sell their produce. AATF continues to push for policies to improve markets for technologies. AATF's new strategy has increased market linkages between farmers and off-takers. During this period, a total of 91,470 farmers were linked to off-takers.

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iii. Strategic Objective 3: Create an enabling environment for increased uptake and use of agricultural technologies

2019/2020 realised notable progress in the efforts by AATF and partners to create an enabling environment for increased uptake of agricultural technologies. AATF reached out to policy makers, media, and farmers in its target countries to build agricultural technologies.

Conclusion: In 2019/ 2020, AATF showed commitment to its interventions and has directly reached 1,600,385 smallholder farmers and an indirect reach of about 1,756,019 million farmers through advocacy, outreach, and policy interventions, an increase from 631,600 direct reach and 1,681,905 indirect reaches in 2018/2019.

Reach/scale of AATF products

The development of the institutional results framework has been a critical success factor in linking projects activities to institutional targets in the strategy. Projects such as Cowpea, CAMAP, WEMA/TELA, Striga, and TAAT have made good progress. AATF will continue putting systems to maintain high standards to ensure projects meet their required targets and support institutional improvements.

Resource mobilisation

The total funds approved during the year 2020 is US\$30.7M, out of which approximately US\$0.3M is from a new donor being the EU. Some of the AATFs resource mobilisation processes were affected by the COVID-19 Pandemic, especially the country government processes for joint resource mobilisation.

Financial review

This financial review incorporates the Charity's subsidiaries namely Qualibasic Seed (QBS) Kenya Ltd and Agridrive Nigeria Limited. The subsidiaries' details are as below:

AATF also works to address some of the obstacles to technology access and delivery across the food value chain from research, production, processing through to market linkages. A priority area is to improve Africa's seed system where one bottle neck is foundation seed. In 2017, in order to address this bottleneck, AATF established and is currently incubating a foundation Seed company called QualiBasic Seed Company (QBS) with the support of BMG. This will help to mitigate the problem of Foundation Seed supply, a vital missing link in the maize seed value chain in most SSA countries. Currently AATF is holding the shares in trust with the agreement to divest its shares to future shareholders by 2022. The review to determine the optimal capital investment and shareholding in 2021 with the aim to have seed companies (current customers of QBS) to form the majority of the new shareholders was completed but with agreement from the QBS Board and BMGF the actual process to solicit and bring new shareholders onboard has been postponed to allow QBS to complete more business cycles. The discussion of the optimal shareholding structure will continue to the end of 2021. However, the actual transition will take place between 2023 and 2024.

Agridrive is a social enterprise incorporated in Nigeria and Kenya in February 2018 as Agridrive Nigeria Ltd and Agridrive Kenya Ltd respectively. They are both owned 100% by AATF. The purpose of Agridrive is to engage in various commercial ventures in the agricultural sector for transformative agriculture development. It is operating as a separate and distinct legal entity from AATF, however, some of the profits generated by the company will be re-invested back into AATF's not-for-profit work to ensure support and sustainability of AATF's institutional mission. Agridrive's first business venture is mechanisation services in Nigeria. Building on the work with CAMAP, Agridrive offers ploughing, harrowing, planting, herbicide application and harvesting to farmers on commercial basis across various crop value chains. Agridrive Kenya Ltd did not have any trading activities in the current reporting period.

The two AATF subsidiaries; QBS and Agridrive, were in deficit positions as at 31 December 2020. This was expected for the start-ups as the projected break-even points were between five to seven years. One of the subsidiaries, that is QBS, is supported by a donor, Bill and Melinda Gates Foundation and do not therefore expose AATF to any significant financial risk. The grant from BMGF to QBS comes to an end in the next financial year but the Charity has successfully applied for a cost-extension of this grant for the next five years to allow the subsidiary to breakeven. Notably, the deficit (loss before tax) for Agridrive reduced by 86% as compared to the prior year

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due to increased revenues in the current year. As for QBS, the current year deficit was due to the write-off of tax credits that had been accumulated in the subsequent financial periods. If these write-offs weren't made, the subsidiary would have posted a surplus for the year. The Charity continues to provide incubation support and advisory to the subsidiaries aimed at ensuring that their revenues improve further hence posting surpluses and/or reduced deficits in subsequent years.

AATF ownership structure in these subsidiaries is highlighted in the Notes to the accounts.

Financial review - Charity

Total income and endowments attributable to the Charity for the year under review decreased by 33% from US\$23.33 million in 2019 to US\$15.74 million in the current year. The amount of donations and legacies decreased to US\$14.37 million down from US\$20.28 million in the prior year hence translating to a 29% decrease. Investment income increased by 40% as compared to the previous year. The decrease in donations and legacies was majorly due to reduced activities for grants that were approaching their end dates, such as, NEWEST Rice, Hybrid Rice and QBS Projects. Reduced activities meant that the organisation received less funds from the grantors as compared to the previous years. Some of these projects had their grants renewed at the tail end of the year hence their income will improve in the subsequent year(s).

Grants from Bill & Melinda Gates Foundation decreased by 39% from US\$13.56 million in the prior year to US\$8.23 million in the reporting period but remained as the highest grantor to the Foundation. The decreased funding in year 2020 can be attributed to a better portion of OFAB funds having been disbursed to AATF in the prior year. QBS first phase of the grant which runs from Jan 2017 to December 2021 was on its second final year in 2020 hence a lower budgetary allocation compared to year 2019. There was continued support from all past investors.

Financial review – Group

Total income and endowments for the year under review decreased by 32% from US\$23.96 million in 2019 to US\$16.30 million in the current year. The amount of donations and legacies decreased to US\$14.39 million down from US\$20.29 million in the prior year hence translating to a 29% decrease. The decrease was as a result low disbursement from donors like DFID whose grant was at the final stage and Bill and Melinda gates for QBS where the first phase of the project was nearing the end and OFAB where most of the funds were disbursed in 2019 following the signing of a new grant. The group recorded a net operating income after tax for the year ended 31 December 2020 of US\$1.61 million against net income after tax of the prior year of US\$5.33 million. Group expenditure decreased to US\$14.69 million as compared to US\$18.63 million in the previous year.

Key Performance Indicators for the Board of Trustees

The Key Performance Indicators of the Board of Trustees as stipulated in the Board Manual are as follows

- Timeliness in providing the policy decisions needed by management.
- Ensure adequacy of documentation for decision making and ensure allocation of adequate time to consider major issues in Board and Committee meetings.
- Quality and openness of discussions.
- Quality of decision making.
- Adequacy of planning to ensure continuous high-quality leadership for the Board and its Committees.
- Appropriate Board composition for Board functions associated with the oversight of both program and management.
- Appropriate committee structure; and
- Adequate orientation for new Trustees.

Principal Funding Sources

During 2020, AATF continued to receive considerable support from members for programs across Africa. In addition, strong internal policies and controls have contributed to maintaining administration costs at reasonable levels. While AATF's focus is on SSA, it

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nevertheless offers the prospect and potential for its activities to benefit a wide range of stakeholders worldwide. AATF will facilitate partnerships and networks that link food security, poverty reduction, market development and economic growth in ways that will change the conventional approaches employed by African producers engaged in agri-business, to make these activities sustainable over time.

Going concern

The financial statements have been prepared on the going concern basis, which the Trustees consider to be appropriate in the context of the Charity's ability to meet its obligations as they fall due in the period of 12 months following the date of approval of these financial statements.

The trustees regularly review the medium and long-term financial position of the Foundation and the Group, including its current and predicted future cash flows. The coronavirus (COVID-19) Pandemic developed rapidly in 2020, with significant number of cases globally. Measures taken to contain the virus such as restricted movements significantly affected economic activity at a global scale, this impact is more on the management of programme activities and not on the financial health of Foundation. Management has considered the consequences of COVID-19 and other events and conditions, and it has determined that they do not create a material uncertainty that casts significant doubt upon the entity's ability to continue as a going concern. There are also no indications that the effect of the Pandemic has any significant impact on the results for the current reporting period.

During the 2020 financial year, the trustees gave considerable attention to the outlook for the Foundation and the Group with even more rigorous financial modelling than usual on a range of post COVID-19 scenarios. This prompted the development of an AATF Response to COVID-19 plan. Both short term and medium to long terms interventions have been identified in line with AATF strategy to mitigate the effects of COVID-19. Some interventions are intensification of existing interventions; however, the majority are new interventions. These interventions will be packaged in line with any donor calls or interest as AATF looks for additional funding to implement these interventions.

The substantive 2021 budget presented to the board for approval in May 2021 meeting shows a surplus of US\$165,688. The company is aware of COVID-19 possible impacts on going concern, financial instruments, business interruption and possible delays in achieving targets. Having carried out this in-depth exercise and reviewed the outputs at Board meetings, the trustees strongly believe that the Foundation is actually doing well despite the challenges posed by COVID-19 as reflected in the resources pipeline. The Foundation has a reasonable level of liquid resources buttressed by new grants provided by Bill and Melinda Gates Foundation in November 2020 for a period of five years as well as another USAID grant for TELA and Cowpea projects that ends in 2023. Therefore, after consideration of the scenarios, the trustees have a reasonable expectation that the Foundation and the Group have adequate resources to continue in operational existence for the foreseeable future being a minimum of twelve months from when these financial statements are approved. Accordingly, they continue to adopt a going concern basis in preparing these financial statements.

Investment Policy

AATF's investment objective is to maximise the return of its investment funds while generating a high degree of liquidity to allow a response to operational needs. To meet this objective AATF invests in fixed term or call deposits with a high security rating and either fixed interest rates or with a fixed relationship to base rates. Our interest rate is of course lower than what the market can offer due to our cautiousness on ensuring capital protection. During the year, there was no equity investment held by AATF. The Board of Trustees review AATF's investment policy annually.

Reserves Policy

The Trustees have examined the requirement for free reserves which are those unrestricted funds that are neither invested in fixed assets designated for specific purposes nor otherwise committed. The policy objective is "to maximise the programme impact to beneficiaries and maximise the value of net income". The Trustees consider that given the nature of AATF's work; ideally the general reserve should preferably be in surplus, which gives flexibility to cover temporary timing differences for grant claims, adequate working capital for

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our core costs and will allow AATF to respond quickly to unexpected situations. As at 31st December 2020, the total reserves stood at US\$8.34 million. The Foundation hasn't earmarked any of these reserves as either restricted or designated, leaving the entire amount of US\$8.34 million as free reserves (2019: US\$7.12 million). Free reserves were invested in financial instruments, in form of fixed and call deposits, in order to increase internally generated income. The Trustees review the reserves policy on an annual basis in light of the new strategic policies and future commitments.

As per AATF Finance Manual, the Foundation "will maintain a general cash reserve equivalent to at least four months of annual budget unless explicitly authorised by the board to operate on a lower reserve level". The 2020 approved budget by the Board is US\$14.99 million hence the minimum total reserves to maintain of US\$5 million. As at the end of the reporting period, the Charity had a fund balance of US\$19.92M of which US\$7.90M are unrestricted funds and the balance of US\$12.02M being restricted funds. Of these funds, US\$7.86M relate to internally generated funds hence by using the budget of 2020 as the base, we had a surplus of US\$2.86M above the desired threshold of reserves (internally generated funds).

All AATF reserves are unrestricted and free upon which the Foundation can freely draw when necessary and particularly to cover:

- 1) Costs AATF will incur in case the organisation has to close down.
- 2) Seed money for AATF to continue funding new projects or new initiatives not funded by donors restricted grants
- 3) Cost of operating expenses to incur while waiting for funding
- 4) Cost of operating expenses not covered by any restricted donors' funds.

Donated Services

The Trustees are grateful to Federal Ministry of Agriculture who has provided office space in Abuja as part of their support of our work in Nigeria. It is estimated that AATF makes savings amounting to over US\$18,000 on rent annually.

Remuneration Policy

All AATF staff pay is dictated by a salary survey among comparators, funds availability and Board approval. The survey is conducted every three years by an independent consultancy firm. Management provides the Board with the results of the survey and suggestions of what is feasible taking into account the budgetary situation of the Foundation. The Audit Committee of the Board examines the survey together with management's proposal and make its recommendation to the Board for approval.

Trustees' Indemnity Insurance

AATF has granted an indemnity to its Trustees against liability in respect of proceedings brought by third parties, subject to the conditions set out in the Companies Act 2006. Such qualifying third-party indemnity provision remains in force as at the date of approving the Trustees' report.

Financial risk management

The Foundation's activities expose it to a variety of financial risks, including credit risk and the effects of changes in foreign currency exchange rates. The Foundation's overall risk management programme focuses on the unpredictability of changes in the business environment and seeks to minimise the potential adverse effect of such risks on its performance by setting acceptable levels of risk.

Risk management is carried out by a committee made of staff from the organisation's finance department, technical department, legal department, and the Executive Director's office. A detailed analysis of the financial risk management for the year is described below.

Market Risk

(i) Foreign exchange risk

The Foundation receives its income (donations) mainly in US Dollars (US\$) and Great Britain Pounds (GBP) but incurs and pays for expenses in either Kenya Shillings or US Dollars. However, the Foundation's exposure to foreign exchange risk is minimal, and is mainly related to Kenya Shilling transactions. Invoices are settled in the currency in which they are received, hence minimal foreign currency gains/losses.

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Balances held in currencies other than US Dollars are as follows:

	<i>2020</i> <i>US\$</i>	<i>2019</i> <i>US\$</i>
Cash and bank balances in KES	94,989	27,392
Cash and bank balances in GBP	40,212	575,201
Cash and bank balances in NGN	<u>224,375</u>	<u>109,543</u>
	<u>359,576</u>	<u>712,136</u>

(ii) Interest Rate Risk Management

The Foundation uses a fixed negotiated rate for both fixed and call deposits to avoid such risks related to floating rate.

(iii) Price Risk

The Foundation does not hold investments that would be subject to price risk; hence this risk is not relevant.

(iv) Credit Risk

The Foundation's credit risk is primarily attributable to its unexpended grants receivable. The credit risk on liquid funds with financial institutions is also low because the counter parties are banks with high credit-ratings.

The amount that best represents the Foundation's maximum exposure to credit as at 31 December 2020 was made up as follows:

	<i>Current</i> <i>US \$</i>	<i>Past due</i> <i>US \$</i>	<i>Impaired</i> <i>US \$</i>
Grants Receivable	955,421	-	-
Other Receivables	759,596	-	-
Cash and short-term deposits	<u>17,153,247</u>	<u>-</u>	<u>-</u>
	<u>18,868,264</u>	<u>-</u>	<u>-</u>

The amount that best represents the Foundation's maximum exposure to credit as of 31 December 2019 was made up as follows:

	<i>Current</i> <i>US \$</i>	<i>Past due</i> <i>US \$</i>	<i>Impaired</i> <i>US \$</i>
Grants Receivable	1,016,698	-	-
Other Receivables	832,851	-	-
Cash and short-term deposits	<u>14,350,731</u>	<u>-</u>	<u>-</u>
	<u>16,200,280</u>	<u>-</u>	<u>-</u>

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Liquidity Risk Management

Ultimate responsibility for liquidity risk management rests with the board of directors through the senior management of the Foundation. Management has built an appropriate liquidity risk management framework for the management of the Foundation's short, medium and long-term funding and liquidity management requirements. The Foundation manages liquidity risk by maintaining banking facilities through continuous monitoring of forecast and actual cash flows.

The table below analyses the Foundation's financial liabilities that will be settled on a net basis into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table below are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances, as the impact of discounting is not significant.

	2020	2019
	US\$	US\$
Payables	<u>1,366,660</u>	<u>1,233,138</u>

Strategy and plans for future

While AATF endeavours to continue with its traditional role of accessing and adapting innovative agricultural technologies, the Strategy for 2018–2022 emphasizes rapid and effective deployment of these innovations to optimise impact at the farmer level.

AATF's Strategy for the next five years seeks to solidify the organisation's position as a center of excellence for agricultural technology transfer in SSA while continuing to excel in its established niche of negotiating technology access, stewardship, and the creation of an enabling environment for innovative technologies.

During the next five years, AATF activities will be anchored in the Strategic Objectives indicated in the trustee's report below.

To structure AATF's work more strategically around impact, quality, and knowledge management, AATF will employ a program approach. Under this approach, individual projects will contribute to common impact Areas. This will help organise and guide the design and implementation of individual projects to achieve common outcomes and maximise delivery against the Strategic Objectives. Five impact areas have been selected due to their potential to effect a broad and lasting change and their fit with AATF's strengths. Project clusters will be selected to align with each of the five impact areas:

- Productivity and Stress Management
- Mechanisation and digital agriculture
- Market systems for commercialisation
- Policy environment and public acceptance
- Nutrition, food quality, and post-harvest management

This new taxonomy will be incorporated into the project planning process to create a more complementary portfolio coalescing around the five areas. This will also serve to facilitate cooperation across the organisation and align the outputs/outcomes of different projects. In addition, it will serve to break down the silos of project-based work, unlocking staff potential by encouraging information sharing and the seamless portability of talent across the organisational structure, thereby creating synergy and operating efficiencies within the organisation.

The impact areas will be mainstreamed into the AATF results framework and constitute a set of key performance indicators (KPIs) that will be tracked in each project.

In shaping the objectives and planning the activities of the Charity, the Trustees have considered the Charity Commission's guidance on public benefit.

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Major Risks

The major risks to which the Charity is exposed (managing existing potential liabilities) have been identified and reviewed by the Trustees. The production and use of genetically modified organisms (GMOs) can create many potential liabilities. The producer or user of GM crops may be liable for damage caused by GM crops to the person or property of another person or to the environment. Pollen flows from transgenic crops to non-transgenic crops cause crop damage. For instance, transgenic pollen flow may ruin the "organic" status of crops or the purity of the genetic material of other seeds. Questions may arise as to whether transgenic crops or their food products are toxic, allergenic or pose a long-term health threat. Claims for compensation in actions for personal or property damage could be based on a theory of negligence, trespass, nuisance or strict liability. The producer or user of GMOs may also be liable for infringement of intellectual property (IP) rights. This liability might even extend to farmers whose crops are accidentally affected by the presence of GMOs as a result of pollen flow or seed comingling.

A full risk register is updated annually, and the audit committee of the Board reviews the risk register two times a year. While all risks are taken seriously, the Board and Management have identified the following to be the most critical risks

- Reduction or Loss of funding.
- Failure of subgrantees to comply with subgrantee agreements.

The root causes were identified, and mitigating measures were put in place.

The Charity has instituted the following systems or procedures to manage those risks:

- The Charity ensures compliance with IP, license and regulatory requirements for its Projects. The Charity adopts appropriate scientific and technical safeguards for all GMOs and advises stakeholders, including smallholder farmers, as to the appropriate use of GMOs.
- The Charity uses indemnification clauses in its contracts with collaborative institutions. Indemnification is a promise, usually contractual, to protect a party from financial loss.
- The Charity also uses warranty disclaimers in its contracts with collaborative institutions. A warranty, either express or implied, is a guarantee that a particular product or technology will serve a specified purpose.
- Another risk mitigation measure available to the Charity is a letter of non-assertion. A letter of non-assertion assures the user that the technology owner will not enforce its IP rights.
- The use of technology and product stewardship procedures including comprehensive risk analyses for Projects and/or phases of Projects, appropriate risk-mitigation strategies (including appropriate insurance coverage, outlining specific uses for technology, management and oversight protocols, procedures to protect confidential information, etc.), and compliance with all applicable laws.

We do recognise, however, that the nature of some of AATF's work in marginalised areas of Africa often affected by extreme poverty and conflict requires active acceptance and management of some risks in undertaking activities to achieve Charity's objectives. The global COVID-19 Pandemic has a potential risk to the operations of the Charity and the Group and Management have taken action to track, monitor and mitigate its effect on the performance as enumerated below.

COVID-19

Background

The analysis shows that the short-term effects of COVID-19 will come from the containment measures. Massive closure in business, loss of jobs and income is the results of the lockdowns. This has affected demand of agricultural produce from the rural areas. In addition, transport and logistics disruptions for agricultural commodities have also affected supply, which has led to interruptions in input supply and difficulties in accessing markets, due to restrictions of movement and border closures. This is already threatening the livelihoods of small-scale farmers. The implication is reduction in revenue for smallholder producers due to shrinking demand and disruptions in supply mechanisms. There is also a likelihood of increased post-harvest losses due to reduced market opportunities. Reversing these losses will need interventions that will support the sustainability of the production systems (May 2020, FARA). Further, there are limited extension services except for the skeletal visit-and-train system. Farmers and processors are left without field demonstrations. Many seed companies have cancelled the annual meetings with farmers as they do not have the means to hold virtual meetings and make online purchases. For example, in Mali the process of certification and provision of seeds

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to be distributed to producers of certified seeds will be delayed this year. This will lead to a lack of availability of seed for the production of certified seeds by individual farmers, associations and cooperatives (June 2020, ICRISAT).

An obvious impact of the Pandemic is that it has the potential to distract stakeholders from addressing pre-existing threats, such as climate change and change in ecological dynamics. It may also reduce focus on long term strategies to embrace innovative technologies. With countries focusing all the attention to the crisis, they are bound to be diverted from long-term strategic goals such as CAADP and the SDGs. This may cascade into unintended negligence of clear and existing threats to food and nutrition security. For example, the first quarter of 2020 saw the number of malnourished people around the world rising due to conflicts and climate change particularly in Sahel region. In addition, the ongoing threat posed by desert locusts in East Africa remains real as swarms have been projected to grow later in the year (May 2020, FARA). There is no doubt that the effect of COVID-19 will have an impact on AATF's vision and mission. AATF 5 years strategy 2018-2022 seeks for food and nutrition security to increase adoption by farmers of commercialised technologies with increase yields of 20% and increase incomes of 15%. In order to still achieve these targets AATF are planning the following interventions:

1. Diversify Technologies and Accelerate Commercialisation: fast-tracking mitigation of food shortages and extending storability of food commodities

Short term interventions:

- Within the Tego maize varieties there are high-yielding short season crop variety seeds that can be planted under constrained conditions of COVID-19, including drought tolerant crop varieties. The yield advantage can be promoted and disseminated in the target WEMA countries, however also in additional countries. Additional funds are required to cover additional countries.
- In order to improve access to seed and other inputs such as pesticides and fertilisers AATF plans for its projects to create linkages with input suppliers and negotiate subsidies prices to ensure farmers can get adequate yields. This will be done first for cassava/CAMAP/AgriDrive in Nigeria, Uganda and Zambia, followed by Seeds2B project and countries Uganda, Malawi and Ghana.
- AATF will promote digital extension and advisory services, online payments and fund transfers, and virtual learning platforms.
- Linking technology adoption with financial incentives

Medium to long term interventions

- Scaling food-bulk storage technologies to conserve the harvest (Storage infrastructure is lacking systematic maintenance and functionality)
- Nutrition enhancing commercialisation strategies. Technology roll-out should give attention to nutritional issues. Post-harvest technologies viz., the processing and storage techniques and facilities need to be compliant with human nutrition requirements and safety standards.

2. Creating an Enabling Environment: Promote sustainable food supply systems, trade and labour markets in the agri-food sector

Short term interventions

- AATF will promote the SeedAssure, the digital seed certification and quality assurance scheme to improve efficiencies and to limit face to face interaction and travel. This will also improve access to national and international markets as it becomes easier to understand what is required and to adhere to required standards. (This will be scaled up to two additional countries with a required investment of 250k per country)
- AATF will also promote the Samawati Compliance E-Notebook which ensures compliance with Project Collaboration Agreements in terms of Governance, Biosafety Laws and Stewardship Plans.
- Advice policy makers and government in general on policy issues evidence to support policy on various incentives to enable affordability of food, such as zero VAT rating, elimination of customs duties and other taxes on basic food, incentives on energy inputs (e.g. diesel rebate, investment into renewable energy etc).
- Review of phyto-sanitary systems for facilitated access to essential foods, such as, advanced pest risk analysis, harmonised regional regulatory systems for transboundary trade, among others

Medium to long term interventions

- Develop agribusiness capacity for processing, storage, logistics and wholesale functions, within African countries, to increase incomes, employment and improve resilience to global shocks in the medium to long term.
- Stronger focus on value addition within Africa to increase inter-regional trade and contain price fluctuations

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

TRUSTEES' ANNUAL REPORT (CONTINUED)

STRATEGIC REPORT (CONTINUED)

- Promotion of e-market/traceability and pack houses to mobilise produce from producers, store and make necessary preparation for marketing.
- AATF will continue to advocate for addressing pre-existing threats, such as climate change, locusts and change in ecological dynamics, as well remind the countries of the focus on long term strategies to embrace innovative technologies.

While AATF is taking all measures to respond to COVID-19 impact, the Foundation financials will not be impacted, rather the cash flow will be high due to reduced expenditures while the revenue will be stable. The Foundation will be able to meet its financial obligations for the current year 2020 and the next year 2021 and maybe beyond.

Risk Management

In addition to the risks mentioned above in the Board of Trustees reviews AATF's key risks regularly as part of the monitoring process. This regular review, combined with the review of controls over key financial and other operational systems carried out through a structured audit program of each country of operation, have, in the past, provided AATF with adequate risk assurance. However, a more comprehensive mechanism to manage the operations of AATF has been incorporated in the new monitoring and evaluation system known as "AATF Monitoring Evaluation, Learning and Improvement and Align (AMELIA)". AATF has a dedicated Regulatory Affairs Unit in charge with technological risks. Through this mechanism, risk mapping, analysis, and mitigation processes are carried out by the Trustees and management in a more structured way. It is generally accepted that the Board of Trustees has overall responsibility for risk oversight. One of the roles of the Board as stated in the AATF Board Manual is to ensure that "the future well-being of AATF is not jeopardized by exposing its financial resources, its staff or its credibility to imprudent risks".

As such, a risk management committee has been established with the purpose of assisting the Board in executing its oversight responsibilities with regard to the risk appetite of the Foundation; the risk management and compliance framework; and the governance structure that supports it.

Risk Management Committee

By establishing a Risk Management Committee (The "Committee"), AATF management wants to provide its Board with an understanding of the critical risks inherent in the Foundation's strategy. The Board will find useful information about the critical assumptions underlying that strategy that will enable it to remain alert to organisational dysfunctions that can lead to excessive risk-taking. The Board will therefore be able to provide input to executive management regarding critical risk issues on a timely basis.

The risk oversight process enables the board and management to develop a mutual understanding regarding the risks the Foundation faces over time. The AATF Executive Management has established a risk management committee to assist the Board of trustees in fulfilling its oversight responsibilities with regard to the risk appetite of the Foundation and the risk management and compliance framework, and the governance structure that supports it. Risk appetite is defined as the level and type of risk the Foundation is able and willing to assume in its exposures and business activities, given its business objectives and obligations to stakeholders.

The Committee has the responsibility to:

- Review and assess risks facing the organisation and the steps management has taken to monitor, control, and report such exposures, including, without limitation, financial, technological, reputational, operational, fraud, strategic, business-continuity risks, among others
- Arrange risk assessment and management forums involving AATF Trustees and Staff
- Review reports and significant findings of the Internal and External Audits with respect to the risk management and compliance activities of the Foundation, together with management's responses and follow-up to these reports
- Review significant reports from regulatory agencies relating to risk management and compliance issues, and management's response
- Advise AATF Trustees on risks facing the AATF twice a year during regular sessions of Board
- Recommend to the Audit Committee of the Board to arrange audits about subject matters identified through risk assessment
- Recommend any necessary strategic or organisational changes as determined during risk assessment
- Prepare and issue risk assessment and management reports (on individual cases and for the year)

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

TRUSTEES' ANNUAL REPORT (CONTINUED)

STRATEGIC REPORT (CONTINUED)

- Review and evaluate the Foundation's policies and practices concerning risk assessment and risk management and twice a year present to the Audit Committee of the Board a report summarizing the Committee's review of the Foundation's risk assessment and management reports
- Make semi-annual reports regarding, among other things, the Foundation's compliance with laws and regulations to the Audit Committee of the Board
- Escalate to the Audit Committee for discussion at a joint session of the Audit and Risk Committees items that have a significant compliance impact or that require significant financial statement/regulatory disclosures

Approved by the Board of Trustees
and signed on behalf of the Board

Dr. Canisius Kanangire

Dr Canisius Kanangire
Executive Director

Date 31/3/2022

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

TRUSTEES' RESPONSIBILITIES STATEMENT

The trustees (who are also directors of the African Agricultural Technology Foundation for company law) are responsible for preparing the Trustees' Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the trustees to prepare financial statements for each financial year. Under that law the trustees have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland. Under company law the trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the charitable company and the group, and of the incoming resources and application of resources, including the income and expenditure, of the charitable company and group for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently.
- observe the methods and principles in the Charities SORP (FRS 102).
- make judgements and accounting estimates that are reasonable and prudent.
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements.
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the charitable company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The trustees confirm that:

- so far as each trustee is aware, there is no relevant audit information of which the charitable company's auditor is unaware; and
- the trustees have taken all the steps that they ought to have taken as trustees in order to make themselves aware of any relevant audit information and to establish that the charitable company's auditor is aware of that information.

The trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Approved by the Board of Trustees
and signed on behalf of the Board

Dr. Canisius Kanangire

Dr Canisius Kanangire
Executive Director

Date 31/3/2022

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

Opinion

We have audited the financial statements of African Agricultural Technology Foundation (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 December 2020, which comprise the Consolidated Statement of Financial Activities, the Consolidated and Parent Balance Sheets, the Consolidated Statement of Cashflows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards including Financial Reporting Standard 102; The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion, the financial statements:

- give a true and fair view of the group's and parent charitable company's affairs as at 31 December 2020 and of the group's and the parent charitable company's incoming resources and application of resources including, the group's and the parent income and expenditure for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We have been appointed as auditor under the Companies Act 2006 and report in accordance with regulations made under that Act. We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the 'Auditor's responsibilities for the audit of the financial statements section' of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We are responsible for concluding on the appropriateness of the trustees' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group's and the parent charitable company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the auditor's opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the group or parent charitable company to cease to continue as a going concern.

In our evaluation of the trustees' conclusions, we considered the inherent risks associated with the charitable company's business model including effects arising from macro-economic uncertainties such as Brexit and Covid-19, we assessed and challenged the reasonableness of estimates made by the trustees and the related disclosures and analysed how those risks might affect the group's and charitable company's financial resources or ability to continue operations over the going concern period.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's and charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

The responsibilities of the trustees with respect to going concern are described in the 'Responsibilities of trustees for the financial statements' section of this report.

Other Information

The trustees are responsible for the other information. The other information comprises the information included in the Consolidated Report and Financial Statements, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION (CONTINUED)

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinion on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report, prepared for the purposes of company law, included in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.
- the Strategic Report and the Directors' Report included in the Trustees' Annual Report have been prepared in accordance with applicable legal requirements.

Matter on which we are required to report under the Companies Act 2006

In the light of the knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report or the Directors' Report included in the Trustees' Annual Report.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent charitable company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company's financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees for the financial statements

As explained more fully in the Trustees' Responsibilities Statement set out on page 37, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the group's and the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the group or parent charitable company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION (CONTINUED)

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. Owing to the inherent limitations of an audit, there is an unavoidable risk that material misstatements in the financial statements may not be detected, even though the audit is properly planned and performed in accordance with the ISAs (UK).

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the charitable company and the sector in which it operates. We determined that the following laws and regulations were most significant: the Charities SORP (FRS 102), The Financial Reporting Standard applicable in the UK and the Republic of Ireland (FRS 102) and the Companies Act 2006.
- We understood how the charitable company is complying with these legal and regulatory frameworks by making inquiries of management and those charged with governance. We enquired of management and those charged with governance whether there were any instances of non-compliance with laws and regulations, or whether they had any knowledge of actual or suspected fraud. We corroborated the results of our enquiries through our review of board minutes, and through our legal and professional expenses review.
- We assessed the susceptibility of the charitable company's financial statements to material misstatement, including how fraud might occur and the risk of material override of controls. Audit procedures performed by the engagement team included:
 - Identifying and assessing the design effectiveness of certain controls management has in place to prevent and detect fraud
 - Challenging assumptions and judgments made by management in its significant accounting policies
 - Identifying and testing journal entries
 - Identifying and testing related party transactions
 - Inspecting the board minutes
 - Assessing the extent of compliance with the relevant laws and regulations as part of our procedures on the related financial statement item
- These audit procedures were designed to provide reasonable assurance that the financial statements were free from fraud or error. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error and detecting irregularities that result from fraud is inherently more difficult than detecting those that result from error, as fraud may involve collusion, deliberate concealment, forgery or intentional misrepresentations. Also, the further removed non-compliance with laws and regulations is from events and transactions reflected in the financial statements, the less likely we would become aware of it
- The assessment of the appropriateness of the collective competence and capabilities of the engagement team included consideration of the engagement team's:
 - Understanding of, and practical experience with, audit engagements of a similar nature and complexity through appropriate training and participation
 - Understanding of, and practical experience with, audit engagements of a similar nature and complexity through appropriate training and participation
 - Understanding of the legal and regulatory requirements specific to the entity including the provisions of the applicable legislation.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION (CONTINUED)

- The team communications in respect of potential non-compliance with laws and regulations and fraud included the potential for fraud in revenue recognition through manipulation of income.
- We did not identify any matters relating to non-compliance with laws and regulation and fraud.
- In assessing the potential risks of material misstatement, we obtained an understanding of:
 - The charitable company's operations, including the nature of its revenue sources, to understand the classes of transactions, accounts balances, expected financial statement disclosures and business risks that may result in risks of material misstatement, and
 - The charitable company's control environment, including:
 - Management's knowledge of relevant laws and regulations and how the charitable company is complying with those laws and regulations
 - The adequacy of procedures for authorisation of transactions and review of management accounts, and
 - Procedures to ensure that possible breaches of laws and regulations are appropriately resolved.

Use of our report

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Grant Thornton UK LLP

Stephen Dean BA (Hons) FCA DChA
Senior Statutory Auditor
for and on behalf of Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
London
Date: 31/3/2022

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES (INCLUDING INCOME & EXPENDITURE ACCOUNT)
FOR THE YEAR ENDED 31 DECEMBER 2020

	Notes	Restricted funds 2020 US\$	Unrestricted funds 2020 US\$	Total funds 2020 US\$	Restricted funds 2019 US\$	Unrestricted funds 2019 US\$	Total funds 2019 US\$
Income and endowments from:						As Restated*	As Restated*
Donations and legacies	2	12,763,341	1,623,915	14,387,256	17,850,859	2,439,556	20,290,415
Charitable activities		-	902,835	902,835	-	2,743,862	2,743,862
Other trading activities		-	554,505	554,505	-	160,797	160,797
Investment income		10,465	410,870	421,335	15,159	286,383	301,542
Other							
- Gain on disposal of fixed asset		-	32,181	32,181	-	-	-
- Taxation credit		-	-	-	-	453,658	453,658
- Capital asset transferred-in		-	-	-	-	9,413	9,413
Total		12,773,806	3,524,306	16,298,112	17,866,018	6,093,669	23,959,687
Expenditure on:							
Raising funds		-	1,984,681	1,984,681	-	1,940,932	1,940,932
Charitable activities:							
- Direct costs	3	8,724,315	321,393	9,045,708	11,485,602	427,337	11,912,939
- Support costs**	3	2,399,745	1,258,172	3,657,917	2,526,745	2,252,699	4,779,444
Total		11,124,060	3,564,246	14,688,306	14,012,347	4,620,968	18,633,315
Net operating income		1,649,746	(39,940)	1,609,806	3,853,671	1,472,701	5,326,372
Other gains and losses							
Exchange difference on translating foreign operations		-	436,418	436,418	-	55,954	55,954
Net income		1,649,746	396,478	2,046,224	3,853,671	1,528,655	5,382,326
Attributable to the owners of the parent		1,649,746	395,298	2,045,044	3,853,671	1,532,911	5,386,582
Attributable to non-controlling interest		-	1,180	1,180	-	(4,256)	(4,256)
Reconciliation of funds							
Total funds b/f – attributable to owners		10,375,690	7,501,062	17,876,752	6,522,019	5,968,151	12,490,170
Total funds carried forward		12,025,436	7,896,360	19,921,796	10,375,690	7,501,062	17,876,752

*Due to re-mapping of some of the subsidiaries' accounts to fit with those of the Charity, amounts relating to "other trading activities" income and "raising funds" expenditure for the prior year were reclassified. The net effect of these reclassified amounts zeroes out hence doesn't affect the total funds carried forward at the end of 31 December 2020.

** In Note 3 (page 51), we have included the amount of governance costs of US\$189,555 (2019: US\$15,329) in the support costs.

N/B: Please refer to Notes below for further details

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION

CONSOLIDATED BALANCE SHEET
AS AT 31 DECEMBER 2020

Company Registration Number 04645806

	Notes	Group Consolidated 2020 US\$	Group Consolidated 2019 US\$	Charity 2020 US\$	Charity 2019 US\$
Non-current assets					
Intangible assets	9a	102	3,151	-	2,892
Tangible assets	9b	2,844,759	2,345,320	338,015	163,241
Investment in subsidiaries	21	-	-	12,556	12,556
Loans to group companies		-	-	940,012	885,322
Deferred tax asset		70,004	923,096	-	-
Biological assets	9c	26,494	86,087	-	-
		<u>2,941,359</u>	<u>3,357,654</u>	<u>1,290,583</u>	<u>1,064,011</u>
Current assets					
Grants debtors	10	1,152,862	1,016,698	955,421	1,016,698
Other debtors	11	1,188,170	1,405,898	759,596	832,851
Short term deposits		13,740,523	8,512,608	13,740,523	8,512,608
Cash at bank and in hand		3,586,363	6,593,651	3,412,723	5,838,123
Inventories	25	436,364	423,801	-	-
		<u>20,104,282</u>	<u>17,952,656</u>	<u>18,868,263</u>	<u>16,200,280</u>
Current liabilities					
Unexpended grant creditors	10	(9,685)	(9,685)	(9,685)	(9,685)
Capital grant		(1,282,308)	(1,357,780)	-	-
Current tax payable		(3,061)	-	-	-
Other creditors	12	(1,834,901)	(1,473,990)	(1,366,660)	(1,233,138)
		<u>(3,129,955)</u>	<u>(2,841,455)</u>	<u>(1,376,345)</u>	<u>(1,242,823)</u>
Net current assets		<u>16,974,327</u>	<u>15,111,201</u>	<u>17,491,918</u>	<u>14,957,457</u>
Non-current liabilities					
Deferred grant	24	-	(599,393)	-	-
Total assets less liabilities		<u>19,915,686</u>	<u>17,869,462</u>	<u>18,782,501</u>	<u>16,021,468</u>
Unrestricted funds		<u>7,896,360</u>	<u>7,501,062</u>	<u>6,757,065</u>	<u>5,645,778</u>
Restricted funds		<u>12,025,436</u>	<u>10,375,690</u>	<u>12,025,436</u>	<u>10,375,690</u>
		<u>19,921,796</u>	<u>17,876,752</u>	<u>18,782,501</u>	<u>16,021,468</u>
Non-controlling interest		<u>(6,110)</u>	<u>(7,290)</u>	-	-
Total funds		<u>19,915,686</u>	<u>17,869,462</u>	<u>18,782,501</u>	<u>16,021,468</u>

These financial statements are prepared in accordance with the Companies Act 2006 and are approved by the Board of Trustees and signed on its behalf:

Dr. Canisius Kanangire

Dr Canisius Kanangire
Executive Director
DATE 31/3/2022

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
CONSOLIDATED STATEMENT OF CASHFLOWS
FOR THE YEAR ENDED 31 DECEMBER 2020

		Group Consolidated 2020 US\$	Group Consolidated 2019 US\$ As Restated*	Charity 2020 US\$	Charity 2019 US\$
	Note				
CASH FLOWS FROM OPERATING ACTIVITIES					
Cash provided by operating activities	16	1,517,196	5,532,663	3,135,033	4,367,324
Tax received/(paid)		4,872	(11,326)	-	-
Net cash provided by operating activities		1,522,068	5,521,337	3,135,033	4,367,324
INVESTING ACTIVITIES					
Investment income		37,568	49,268	27,729	28,290
Purchase of assets	9b	(1,072,674)	(1,570,953)	(332,927)	(72,048)
Purchase of intangible assets	9a	-	-	-	-
Disposal of biological assets	9c	73,197	-	-	-
Purchase of biological assets		(13,604)	(17,525)	-	-
Proceeds on disposal of equipment		44,869	1,256	27,370	483
Loan advanced to group companies		-	-	(54,690)	(452,878)
Net cash used in investing activities		(930,644)	(1,537,954)	(332,518)	(496,153)
CHANGE IN CASH AND CASH EQUIVALENTS		591,424	3,983,383	2,802,515	3,871,171
CASH AND CASH EQUIVALENTS AT 1 JANUARY					
Cash at bank and in hand		6,593,651	5,854,010	5,838,124	5,457,687
Short term deposits		8,512,608	5,021,875	8,512,608	5,021,875
Effect of translation on foreign entities		1,629,203	246,991	-	-
CASH AND CASH EQUIVALENTS AT 31 DECEMBER		17,326,886	15,106,259	17,153,247	14,350,733

* In 2019, interest that was received by the Charity of US\$28,290 was erroneously replicated in the Group column instead of the correct amount for the Group of US\$49,268. This has been corrected in this year's accounts hence restatement of prior year.

ANALYSIS OF CHANGES IN NET DEBT

	At 1 Jan 2020	Cashflows	At 31 Dec 2020
Cash and cash equivalents			
Cash	6,593,651	(3,007,288)	3,586,363
Cash equivalents	8,512,608	5,227,915	13,740,523
Overdrafts			
	15,106,259	2,220,627	17,326,886
Borrowings			
Debt due within one year	-	-	-
Debt due after one year	-	-	-
Total	15,106,259	2,220,627	17,326,886

N/B: Please refer to Notes below for further details

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

1 ACCOUNTING POLICIES

Statement of compliance and basis of preparation

African Agricultural Technology Foundation is a public benefit entity, a private company limited by guarantee, registered in England and whose headquarters is in Nairobi, Kenya. The Registered Office is c/o Arnold and Porter (UK) LLP, Level 30, Tower 42, 25 Old Broad Street, EC2N 1HQ, London, UK. The main country of reporting is Kenya where financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS). The audit exercise is undertaken both in Kenya and the UK. However, since the organisation is a registered company and charity in the UK, we are required to prepare financial statements in compliance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standards applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)'.

The principal accounting policies adopted in the preparation of the financial statements are set out below. The financial statements are prepared on a going concern basis.

Going Concern

The trustees regularly review the medium and long-term financial position of the Foundation and the Group, including its current and predicted future cash flows. The coronavirus (COVID-19) Pandemic developed rapidly in 2020, with significant number of cases globally. Measures taken to contain the virus such as restricted movements significantly affected economic activity at a global scale, this impact is more on the management of programme activities and not on the financial health of Foundation. Management has considered the consequences of COVID-19 and other events and conditions, and it has determined that they do not create a material uncertainty that casts significant doubt upon the entity's ability to continue as a going concern. There are also no indications that the effect of the Pandemic has any significant impact on the results for the current reporting period.

During the 2020 financial year, the trustees gave considerable attention to the outlook for the Foundation and the Group with even more rigorous financial modelling than usual on a range of post COVID-19 scenarios. This prompted the development of an AATF Response to COVID-19 plan. Both short term and medium to long terms interventions have been identified in line with AATF strategy to mitigate the effects of COVID-19. Some interventions are intensification of existing interventions; however, the majority are new interventions. These interventions will be packaged in line with any donor calls or interest as AATF looks for additional funding to implement these interventions.

The substantive 2021 budget presented to the board for approval in May 2021 meeting shows a surplus of US\$165,688. The company is aware of COVID-19 possible impacts ongoing concern, financial instruments, business interruption and possible delays in achieving targets. Having carried out this in-depth exercise and reviewed the outputs at Board meetings, the trustees strongly believe that the Foundation is doing well despite the challenges posed by COVID-19 as reflected in the resources pipeline. The Foundation has a reasonable level of liquid resources buttressed by new grants provided by Bill and Melinda Gates Foundation in November 2020 for a period of five years as well as another USAID grant for TELA and Cowpea projects that ends in 2023.

Therefore, after consideration of the scenarios, the trustees have a reasonable expectation that the Foundation and the Group have adequate resources to continue in operational existence for the foreseeable future being a minimum of twelve months from when these financial statements are approved. Accordingly, they continue to adopt a going concern basis in preparing these financial statements.

Basis of accounting

The financial statements have been prepared under the historical cost convention. The financial statements are prepared in US dollars which is the functional currency of the Company and rounded to the nearest US\$, with the exception of the analysis of highest paid staff which is given in GBP sterling for clarity of disclosure compliance.

A separate statement of financial activities and income and expenditure accounts are not presented for the Charity itself in accordance with the applicable exemptions afforded by section 408 of the Companies Act 2006. All group entities have uniform accounting policies.

Judgements and key sources of estimation uncertainty

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the amounts reported for assets and liabilities as at the balance sheet date and the amounts reported for revenues and expenses during the year. However, the nature of estimation means that actual outcomes could differ from those estimates. Specific areas of

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

1 ACCOUNTING POLICIES (CONTINUED)

judgement include depreciation and useful economic lives of assets and provisions. The nature of the estimation means that actual outcomes could differ from those estimates. None of the judgements have a significant effect on the financial statements. These judgements and key sources of estimation uncertainty are set out in this section i.e. Note 1 (accounting policies) and specifically as set out in pages 45–49.

Income

Income is recognised in the accounts when all of the following criteria are met:

- Entitlement – control over the rights or other access to the economic benefit has passed to the charity.
- Probable – it is more likely than not that the economic benefits associated with the transaction or gift will flow to the charity.
- Measurement – the monetary value or amount of the income can be measured reliably and the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

Interest income is accrued on a time basis by reference to the principal outstanding and at the effective interest rate applicable.

Overhead income represents revenue derived from projects' grants to support these indirect costs meant to cover administrative or other expenses related to general operations that are shared among projects and/or functions and which cannot be directly allocable to a particular activity. These may include executive oversight, existing facilities costs, accounting, grants management, legal expenses, utilities and audit.

Grants are recognised as revenue upon the fulfilment of donor-imposed conditions or restrictions attached to the grants as explained below:

Structure of funds

Where there is a legal restriction on the purpose to which a fund may be put, the fund is classified in the accounts as a restricted fund. Some restricted funds are in a deficit position due to the timing of recognition of grant income under the SORP. In the short term the projects funded by these restricted grants are pre-financed from general funds for cash flow purposes, the project expenditure is then matched with further restricted grants received since the year end when such expenditure meets the criteria of the related grant funding. Funds where the capital is held to generate income for charitable purposes and cannot be spent are accounted for as endowment funds. Other funds are classified as unrestricted funds. Funds which are not legally restricted but which the Trustees have chosen to earmark for set purposes are treated as designated funds. The major funds held within these categories are disclosed in note 2.

Expenditure

Expenditure is recognised on an accrual basis as a liability is incurred. Expenditure includes any VAT which cannot be fully recovered and is reported as part of the expenditure to which it relates.

Other costs include those costs associated with meeting the constitutional and statutory requirements of the Charity and includes the audit fees and costs linked to the strategic management of the Charity.

Support costs

All costs are allocated between the expenditure categories of the Statement of Financial Activities on a basis designed to reflect the use of the resource. Costs relating to a particular activity are allocated directly, and support costs are apportioned on an appropriate basis e.g. estimated usage, as set out in Note 3.

Tangible assets

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Items of lasting value with an initial acquisition cost of less than US\$1,000 are charged to operating expenses in the year of purchase. For some donors like Bill & Melinda Gates Foundation all items valued less than US\$ 5,000 are considered operational expenses and not capital expenses.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

1 ACCOUNTING POLICIES (CONTINUED)

Depreciation is provided on all property, plant and equipment, at rates calculated to write off the cost, less estimated residual value, of each asset on a systematic basis over its expected useful life as follows:

Computers and related equipment	3 years
Motor vehicles	4 years
Furniture and equipment	5 years

The carrying values of tangible fixed assets are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

Biological assets

An entity shall recognise a biological asset or agricultural produce when, and only when:

- the entity controls the asset as a result of past events.
- it is probable that future economic benefits associated with the asset will flow to the entity; and
- the fair value or cost of the asset can be measured reliably.

Biological assets are measured at their fair value less costs to sell

A gain or loss arising on initial recognition of agricultural produce at fair value less costs to sell is included in surplus or deficit for the period in which it arises.

Where market determined prices or values are not available, the present value of the expected net cash inflows from the asset, discounted at a current market-determined rate is used to determine fair value.

An unconditional government grant related to a biological asset measured at its fair value less costs to sell is recognised as income when the government grant becomes receivable.

Where fair value cannot be measured reliably, biological assets are measured at cost less any accumulated depreciation and any accumulated impairment losses.

Intangible assets

Intangible assets acquired separately from a business are capitalised at cost. After initial recognition, intangible assets are stated at cost less accumulated amortisation and accumulated impairment. Intangible assets are amortised on a straight-line basis over their estimated useful lives. The carrying value of intangible assets is reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

The useful economic lives of intangible assets are as follows:

Computer software	3 years
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If there are indicators that the residual value or useful life of an intangible asset has changed since the most recent annual reporting period previous estimates shall be reviewed and, if current expectations differ the residual value, amortisation method or useful life shall be amended. Changes in the expected useful life or the expected pattern of consumption of benefit shall be accounted for as a change in accounting estimate.

Operating leases

Rentals payable under operating leases are charged to the Statement of Financial Activities on a straight-line basis over the lease term.

Pension contributions

AATF operates a defined contribution pension scheme. The assets of the scheme are held separately from those of the company in an independently administered fund. The amount charged to the income and expenditure account represents the contributions payable to the scheme in respect of the accounting period.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

1 ACCOUNTING POLICIES (CONTINUED)

AATF makes pension contributions to an offshore defined pension contribution scheme (Vanbreda International) for expatriate staff and to a local defined pension scheme (Liberty) for all Kenyan staff. The contribution made is 15% equivalent of each employee's basic salary.

Currency translation

The Foundation's financial statements are presented in United States Dollars (US\$), the functional currency. Transactions and balances expressed in currencies other than the US Dollar are treated as follows:

- Non-US Dollar grants and donations received in the year are converted to US dollars at the rates of exchange prevailing on the dates of receipt. Non-US Dollar grants and donations pledged for the year but not received by the period-end are recognised in the financial statements at the rates of exchange prevailing at the period-end.
- Non-US Dollar denominated expenditures are recorded at the average rates of exchange for the month in which they are incurred and are accumulated in US Dollars.
- Assets and liabilities that are denominated in currencies other than the US Dollar are restated into US Dollars at the rates of exchange prevailing at the period-end.
- Gains and losses arising from changes in exchange rates are charged or credited to the statement of comprehensive income in the period in which they arise.
- Emoluments to key employees are translated from US Dollars to Great British Pound using the rate of exchange prevailing at the period-end. This disclosure is in compliance with the requirements of the SORP reporting with regard to employees whose total emoluments exceed £60,000 annually. The emoluments have been presented in bands of £10,000.

Taxation

As a Charity, African Agricultural Technology Foundation is exempt from tax on income and gains falling within Chapter 3 of Part 11 to the Corporation Tax Act 2010 to the extent that these are applied to its charitable objects. No tax charges have arisen in the Charity. The Charity is exempt from corporation tax and enjoys a Value added Tax (VAT) exemption.

Donated services

The Trustees are grateful to ARCN who has provided office space in Abuja as part of their support of our work in Nigeria. No value has been placed on this in the SOFA as it is not material in the context of the accounts.

Financial instruments

The company recognises financial instruments when it becomes a party to the contractual arrangements of the instrument. Financial instruments are de-recognised when they are discharged or when the contractual terms expire. The company's accounting policies in respect of financial instruments transactions are explained below:

Financial assets

The company classifies all its financial assets as loans and receivables.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise principally through the provision of goods and services to customers (e.g. trade receivables), but also incorporate other types of contractual monetary asset. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment. Impairment provisions are recognised when there is objective evidence (such as significant financial difficulties on the part of the counterparty or default or significant delay in payment) that the company will be unable to collect all the amounts due under the terms receivable, the amount of such a provision being the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable. For trade receivables, which are reported net, such provisions are recorded in a separate allowance account with the loss being recognised within administrative expenses in the income statement. On confirmation that the trade receivable will not be collected, the gross carrying value of the asset is written off against the associated provision.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

1 ACCOUNTING POLICIES (CONTINUED)

Financial liabilities

The company classifies all its financial liabilities as liabilities at amortised cost. Financial liabilities at amortised cost including bank borrowings are initially recognised at fair value net of any transaction costs directly attributable to the issue of the instrument. Such interest-bearing liabilities are subsequently measured at amortised cost using the effective interest rate method, which ensures that any interest expense over the period to repayment is at a constant rate on the balance of liability carried into the statement of financial position.

Inventories

Inventories are measured at the lower cost and net realizable value on the first-in-first-out basis. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. *The cost of inventories comprises of all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.*

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

2 INCOME FROM DONATIONS AND LEGACIES

	Restricted funds	Unrestricted funds	Total funds	Total funds
	2020	2020	2020	2019
	US\$	US\$	US\$	US\$
Voluntary Income				
USAID	3,577,633	-	3,577,633	3,062,296
DFID	-	1,603,136	1,603,136	2,429,073
Bill & Melinda Gates Foundation – TELA Project	4,971,874	-	4,971,874	5,857,192
Bill & Melinda Gates Foundation – QBS Project	602,100	-	602,100	2,630,786
Bill & Melinda Gates Foundation – Other Projects	2,657,204	-	2,657,204	5,071,670
CIMMYT	-	-	-	29,524
International Institute for Tropical Agriculture (IITA)	954,530	-	954,530	1,000,000
Alliance for a Green Revolution in Africa (AGRA)	-	-	-	74,952
Syngenta Foundation for Sustainable Agriculture (SFSA)	-	-	-	68,739
SNV Netherlands	-	-	-	55,700
Total voluntary income - Charity	12,763,341	1,603,136	14,366,477	20,279,932
PyroGenesys	-	20,779	20,779	10,483
Total voluntary income - Group	12,763,341	1,623,915	14,387,256	20,290,415

Income is analysed by geographical source of origin

	2020 US\$	2019 US\$
North America	11,808,811	16,651,468
Europe	1,623,915	2,563,995
Africa	954,530	1,074,952
	14,387,256	20,290,415

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

3. CHARITABLE EXPENDITURE

Currency US\$	TELA	QBS	COWPEA	TAAT	OFAB	HYBRID RICE	NEWEST RICE	SEEDS2B	CASSAVA	STRIGA	NEW PROJECT INITIATIVES	GOVERNANCE COSTS**	2020 Total	2019* Total
Outsourced Research Activities	3,175,011	(783,406)	263,855	338,528	1,119,290	325,048	461,346	61,443	83,662	37,463	60,000	-	5,142,240	6,664,990
Project Supplies	68,246	41,789	10,000	16,100	-	-	-	77,418	-	2,311	-	-	215,864	422,532
Travel	47,478	3,847	74,113	747	1,047	4,060	25,939	7,825	5,933	5,739	-	-	176,728	516,095
Conference & Workshops	19,856	2,032	12,131	1,065	8,244	-	14,039	74,376	-	-	-	-	131,743	866,428
Rentals	65,134	1,974	76,977	-	33,554	15,790	-	8,625	-	-	-	-	202,054	202,069
Direct Staff Costs	629,478	472	288,394	519,233	287,687	158,116	22,373	77,920	-	-	-	-	1,983,673	1,841,478
Institutional Support	507,351	46,686	166,853	-	268,581	84,523	95,967	23,445	-	-	-	-	1,193,406	1,399,347
Cost directly allocated to activities	4,512,554	(686,606)	892,323	875,673	1,718,403	587,537	619,664	331,052	89,595	45,513	60,000	-	9,045,708	11,912,939
General Personnel Costs	235,561	270,874	500,783	20,576	234,788	136,292	456,936	62,573	-	-	-	-	1,918,383	1,978,576
Consultancy and other professional services	254,603	19,676	49,048	4,530	80,578	70,196	192,147	-	68,896	(100)	21,300	137,211	898,085	1,159,987
Depreciation	18,861	-	88,900	4,967	14,200	30,844	-	2,110	-	-	-	-	159,882	85,347
General expenses and supplies	97,074	8,201	236,660	2,543	164,280	20,438	6,633	19,422	1,256	-	-	-	556,507	538,510
Forex Losses on revaluations	8,664	5,731	57,081	339	429	-	2	437	33	-	-	-	72,716	796,605
Board expenses	-	-	-	-	-	-	-	-	-	-	-	52,344	52,344	220,419
Support costs allocated to activities*	614,763	304,482	932,472	32,955	494,275	257,770	655,718	84,542	70,185	(100)	21,300	189,555	3,657,917	4,779,444
Total resources expended	5,127,317	(382,124)	1,824,795	908,628	2,212,678	845,307	1,275,382	415,594	159,780	45,413	81,300	189,555	12,703,625	16,692,383

* The Management of the Foundation has reconsidered the presentation of the governance costs within the support costs and in the total expenditure shown on this Note. The figures for 2019 have been restated to accommodate this new approach to the presentation of this Note.

** Refer to Note 18 for further details.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

4. PERSONNEL COSTS

Personnel Costs - Group	2020 US\$	2019 US\$ As Restated*	2020 £	2019 £ As Restated*
Salaries and wages	3,540,316	3,629,698	2,602,132	2,758,570
NI social security costs	233,858	201,412	171,886	153,073
Pension costs	376,108	390,237	276,439	296,580
Other personnel costs	352,226	297,949	258,886	226,441
	<u>4,502,508</u>	<u>4,519,296</u>	<u>3,309,343</u>	<u>3,434,664</u>
Personnel Costs - Charity				
	2020 US\$	2019 US\$	2020 £	2019 £
Salaries and wages	3,007,757	3,022,579	2,210,702	2,297,160
NI social security costs	195,272	160,040	143,525	121,630
Pension costs	327,672	338,271	240,839	257,086
Other personnel costs	371,353	299,164	272,945	227,365
	<u>3,902,054</u>	<u>3,820,054</u>	<u>2,868,011</u>	<u>2,903,241</u>

*During the current reporting period, some items that had been reported in 2019 under personnel costs by the subsidiaries, were re-mapped and reported as general expenses and supplies as shown in Note 6 below. These items amount to US\$27,958.

The Charity had an average of 46 employees during the year (2019: 45). The Group had an average of 66 employees during the year (2019: 65). The directors consider that key management personnel are the senior management (executive directors). Remuneration for key management personnel for the Charity totalled US\$1,120,786 / £823,778 (2019: US\$1,155,052 / £877,840).

The number of employees for the Charity with total emoluments for the year of over £60,000 (approximately USD 80,000) was as follows:

	2020 No.	2019 No.
USD100,001 - USD120,000	1	-
USD120,001 - USD140,000	-	-
USD140,001 - USD160,000	-	1
USD160,001 - USD180,000	4	6
USD180,001 - USD200,000	4	2
USD200,001 - USD220,000	2	2
USD220,001 - USD240,000	-	1
USD240,001 - USD260,000	1	-
USD260,001 - USD280,000	-	1
USD280,001 - USD300,000	1	1

Contributions in the year for the above higher-paid Charity employees to defined contribution pension scheme totalled US\$ 216,924 / £159,439 (2019: US\$232,300 / £176,548)

The number of the above higher-paid employees to whom retirement benefits are accruing under defined contribution pension schemes for the Charity totalled 13; (2019: 14).

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

5. CONSULTANTS' AND PROFESSIONAL EXPENSES

	Group		Charity	
	2020 US\$	2019 US\$ As Restated*	2020 US\$	2019 US\$
Consultants' fees	729,079	1,003,009	728,425	1,001,518
Consultants' travel, accommodation, and reimbursements	2,067	5,742	2,067	5,336
External audit (Various - See Note 7)	117,811	84,670	60,170	45,868
Internal audit (KKCO)	9,103	9,923	9,103	9,923
Legal fees	105,649	94,368	51,083	35,866
Taxation and secretarial services	81,424	92,996	47,237	61,476
	1,045,133	1,290,708	898,085	1,159,987
Allocated:				
Charitable expenditure (note 3)	760,874	1,065,077	760,874	1,065,077
Other costs (note 18)	137,211	94,910	137,211	94,910
Trading expenses - subsidiaries	147,048	130,721		
	1,045,133	1,290,708	898,085	1,159,987

*Management fee of \$2,313 paid by Agridrive in relation to PyroPower project had been marked as a taxation and secretarial expense in the prior year but now correctly mapped under audit fees.

6. GENERAL EXPENSES AND SUPPLIES

	Group		Charity	
	2020 US\$	2019 US\$ As Restated*	2020 US\$	2019 US\$
Office and computer supplies	329,835	305,207	271,793	235,039
Communication	132,804	191,950	121,697	163,388
Vehicle expenses	58,788	51,805	49,110	32,443
Other office expenses	136,843	234,167	113,908	106,212
	658,270	783,129	556,508	537,082

*As reported in Note 4 above, expenses amounting to US\$27,958 that had been reported in 2019 under personnel costs by the subsidiaries, were re-mapped and now reported as general expenses. An account relating to depreciation of plant, property and equipment (PPE) amounting to US\$6,050 had also been mapped as a general expense in the prior year accounts of Agridrive. This was re-mapped appropriately in the current year. In addition, US\$2,234 had been mapped under general expenses in 2019 yet should have been reported as a workshop and conference costs. The net effect of the remapped accounts on this Note amounts to US\$19,674.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

7 NET INCOME / (EXPENDITURE) FOR THE YEAR

This is stated after charging:

	Group		Charity	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
Depreciation - Property, plant, and equipment (PP&E)	240,432	186,030	156,988	82,454
Amortisation	3,035	2,893	2,892	2,893
External Audit - Charity (Grant Thornton - UK)	32,521	9,299	32,521	9,299
External Audit - Charity (Grant Thornton - KE)	23,200	31,752	23,200	31,752
External Audit - Agridrive Nigeria Ltd (Grant Thornton - Nigeria)	5,710	6,470	-	-
External Audit - QBS Kenya Ltd (BDO Kenya / BDO ZIM & BDO RSA)	31,500	30,019	-	-
Fees payable to company auditors for other services	4,800	4,500	4,800	4,500
Operating lease costs	201,550	201,550	201,550	201,550

AATF has entered into a hosting agreement with International Livestock Research Institute (ILRI). This agreement includes among other things a lease arrangement for office space by AATF payable on a quarterly basis. The hosting agreement automatically renews annually. The current agreement expires on 31 December 2021. However, management has determined that it may continue leasing this office space for the next seven years up until 31 December 2028. Therefore the total of future minimum lease payments made under non-cancellable operating leases for the next year is US\$201,550 (2019: US\$201,550). The total of future minimum lease payments made under optional operating leases for the next two to five years is US\$806,200 (2019: 806,200). The total of future minimum lease payments made under optional operating leases for the period after five years is US\$403,100 (2019:US\$604,650).

8 TRUSTEE REMUNERATION AND RELATED PARTY TRANSACTIONS

The Board of Trustees (BOT) of the Foundation were paid honoraria of US\$40,350 (2019: US\$54,676) for their role in meetings and other corporate activities of the Foundation. Travel allowances amounting to US\$0 (2019: US\$77,409) were reimbursed to 11 members of the Board to cover travel costs incurred in attending the Foundation's Board meetings. Indemnity Insurance for Trustees was paid during the year of US\$ 10,304 (2019: US\$10,047). Other board meeting expenses were: - non-BOT per diem US\$0(2019: US\$1,567), accommodation and meals US\$ 0 (2019: US\$42,954) and other board expenses US\$1,690(2019: US\$33,766).

No Trustee or other person related to the Charity had any personal interest in any contract or transaction entered into by the Charity during the year (2019: Nil).

The Charity has advanced loans to senior management personnel; the balance outstanding at the year-end totalled US\$22,573 for two employees (2019: US\$36,657 for three employees). Such loans are interest-free.

No one party has ultimate control over the Charity, and all transactions are on an arm's length basis.

We have disclosed in detail the subsidiaries under Charity's control as at 31 December 2020 in Note 21 "Investment in Subsidiaries".

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

9a INTANGIBLE ASSETS - GROUP

	Computer software US\$	Total US\$
Cost		
At 1 January 2020	51,888	51,888
Additions		
At 31 December 2020	51,888	51,888
Depreciation/Amortisation		
At 1 January 2020	48,737	48,737
Charge for the year	3,049	3,049
At 31 December 2020	51,786	51,786
Net book value		
As at 31 December 2020	102	102
As at 31 December 2019	3,151	3,151

9a INTANGIBLE ASSETS - CHARITY

	Computer software US\$	Total US\$
Cost		
At 1 January 2020	51,524	51,524
Additions		
At 31 December 2020	51,524	51,524
Depreciation/Amortisation		
At 1 January 2020	48,632	48,632
Charge for the year	2,892	2,892
At 31 December 2020	51,524	51,524
Net book value		
As at 31 December 2020		
As at 31 December 2019	2,892	2,892

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

9b TANGIBLE ASSETS - GROUP

	Motor Vehicles, trailers, m/bikes, scooters	Furniture and office equipment	Computers and related equipment	Tractors	Farm Equipment and Implements	Work in Progress (WIP)	Buildings	Leasehold Improvements	Temporary Buildings	Total
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$
Cost										
At 1 January 2020	684,072	296,477	282,179	1,281,759	397,068	43,529	410,592	33,802	-	3,429,478
Additions	259,655	91,837	41,350	378,763	167,712	120,333	-	-	13,025	1,072,675
Disposals	(123,659)	(54,270)	(114,727)	(95,221)	(30,637)	(7,403)	(29,690)	(2,608)	-	(458,215)
Transfers	-	-	-	22,064	-	(22,064)	-	-	-	-
As at 31 Dec 2020	820,068	334,044	208,802	1,587,365	534,143	134,395	380,902	31,194	13,025	4,043,938
Depreciation/Amortisation										
At 1 January 2020	438,111	167,374	228,149	125,661	118,801	-	-	6,062	-	1,084,158
Charge for the year	159,025	41,208	38,600	75,712	79,785	-	-	6,402	835	401,567
Disposals	(106,362)	(46,484)	(110,249)	(11,591)	(11,209)	-	-	(631)	(21)	(286,547)
As at 31 Dec 2020	490,774	162,098	156,500	189,782	187,377	-	-	11,833	814	1,199,178
Net book value										
As at 31 Dec 2020	329,293	171,946	52,302	1,397,583	346,766	134,395	380,902	19,361	12,211	2,844,759
As at 31 Dec 2019	245,961	129,103	54,030	1,156,098	278,267	43,529	410,592	27,740	-	2,345,320

9b TANGIBLE ASSETS - CHARITY

	Motor vehicles, trailers, m/bikes, scooters	Furniture & office equipment	Computers & related equipment	Total
	US\$	US\$	US\$	US\$
Cost				
At 1 January 2020	434,212	151,637	244,748	830,597
Additions	257,311	37,384	38,232	332,927
Disposals	(96,550)	(42,628)	(109,230)	(248,408)
As at 31 December 2020	594,973	146,393	173,750	915,116
Depreciation/Amortisation				
At 1 January 2020	325,170	131,552	210,634	667,356
Charge for the year	112,118	13,057	31,813	156,988
Disposals	(96,550)	(42,069)	(108,624)	(247,243)
As at 31 December 2020	340,738	102,540	133,823	577,101
Net book value				
As at 31 December 2020	254,235	43,853	39,927	338,015
As at 31 December 2019	109,042	20,085	34,114	163,241

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
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9c BIOLOGICAL ASSETS	Group US\$	Charity US\$
Cost		
At 1 January 2020	86,087	-
Additions	13,604	-
(Decreases) due to harvest	(73,197)	-
As at 31 December 2020	26,494	-
Depreciation/Amortisation		
At 1 January 2020	-	-
Charge for the year	-	-
Disposals	-	-
As at 31 December 2020	-	-
Net book value		
As at 31 December 2020	26,494	-
As at 31 December 2019	86,087	-

The biological assets reported in this note relates to hybrid maize seeds cultivated by the Charity's subsidiary, QBS Kenya Limited. Biological assets are measured at their fair value less costs to sell.

10 GRANT DEBTORS/ (UNEXPENDED GRANTS)

Donor	Grant Debtors brought forward 01.01.2020 US\$	Unexpended grants brought forward 01.01.2020* US\$	Receipts US\$	Expenditure US\$	Grant Debtors carried forward 31.12.2020 US\$	Unexpended grants carried forward 31.12.2020 US\$
DFID	-	-	1,603,136	1,603,136	-	-
USAID	1,016,698	-	3,346,179	3,284,902	955,421	-
BMGF-TELA, Hybrid Rice, OFAB, QBS	-	(9,685)	8,231,178	8,231,178	-	(9,685)
IITA	-	-	954,530	954,530	-	-
CIMMYT	-	-	-	-	-	-
SFSA-SEEDS2B/PASTTA	-	-	292,731	292,731	-	-
PyroGenesys	-	-	20,779	20,779	-	-
Total - Charity	1,016,698	(9,685)	14,448,533	14,387,256	955,421	(9,685)
BMGF - QBS Company Ltd	-	(599,393)	390,867	1,187,701	197,441	-
Total - Group	1,016,698	(609,078)	14,839,400	15,574,957	1,152,862	(9,685)

*In 2019 accounts, the amount of unexpended grants relating to QBS Company had been presented separately in the Statement of Financial Position, as deferred grant. We have maintained this position in the 2020 comparatives. In the current year, we have combined the QBS Company balances with the other grant debtors.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
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11 OTHER DEBTORS

	Group		Charity	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
Staff loans	91,291	155,450	91,291	155,450
Advances for travel and expenses	62,683	47,797	61,724	47,797
ILRI	10,718	-	10,718	-
AIARC current account	72,785	33,261	72,785	33,261
Prepayments	172,421	145,711	94,287	52,741
Trade debtors	476,893	354,787	-	-
Amounts owed from group and associated undertakings	-	-	173,638	80,321
USDA-FAS	131,825	72,614	131,825	72,614
Klein Karoo	94,930	182,853	94,930	-
Credit cards	2,438	4,073	-	-
Other receivables	59,038	258,406	25,405	190,653
VAT	10,155	128,406	-	-
Refundable taxes	2,993	17,161	2,993	17,161
Current tax receivable	-	5,379	-	-
	<u>1,188,170</u>	<u>1,405,898</u>	<u>759,596</u>	<u>832,851</u>

Loans are provided to staff, after approval in accordance with AATF's policies, as part of AATF's staff retention strategy, as such incentives are provided by other similar local organisations.

12 ANALYSIS OF CREDITORS FALLING DUE WITHIN ONE YEAR

	Group		Charity	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
	As Restated*			
Accrued leave	198,637	153,728	198,637	153,728
Accrued services	99,426	74,657	99,426	74,657
Other creditors	191,221	103,127	-	25,039
Trade creditors	268,228	145,961	13,226	501
Amounts owed to group and associated undertakings	-	-	-	23,775
Seed Revolving Fund	-	429,379	-	429,379
Collaborating Organisations	481,734	9,912	467,396	526,059
Credit cards	4,311	-	4,255	-
Payroll & withholding liabilities	583,720	526,029	583,720	-
VAT	7,624	9,791	-	-
	<u>1,834,901</u>	<u>1,452,617</u>	<u>1,366,660</u>	<u>1,233,138</u>

*Accounts were re-mapped to ensure consistency in the classification of creditors across the group leading to changes in 2019 amounts for accrued services, other creditors, trade creditors, collaborating organisations, payroll & withholding liabilities and VAT. However, the total amounts for this Note remains the same after the reclassification.

13 PROVISIONS FOR LIABILITIES

	Group		Charity	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
At 1 January	-	192,312	-	192,312
Provided / (Reversal of provision)	-	(192,312)	-	(192,312)
At 31 December	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

The provision relates to employee payments that were expected to be resolved in the succeeding years. However, its payment has been delayed indefinitely and the Foundation decided to reverse the provision.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
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14 MOVEMENT IN FUNDS

Fund name	Fund balances brought forward US\$	Incoming resources US\$	Outgoing resources US\$	Transfers* US\$	Fund balances carried forward US\$
Unrestricted:					
Rockefeller	265,688	-	-	-	265,688
DFID	356,118	1,603,136	996,704	-	962,550
Reserves Account	5,023,974	1,339,910	582,861	(1,177,739)	4,603,284
Sub-total Unrestricted - Charity	5,645,780	2,943,046	1,579,565	(1,177,739)	5,831,522
Restricted:					
USAID	(435,236)	3,577,633	2,845,057	-	297,340
Bill and Melinda Gates Foundation and Howard Buffet Foundation	11,135,867	8,240,232	7,272,374	-	12,103,725
IITA	(467,890)	955,941	898,035	-	(409,984)
CIMMYT	(3,882)	-	-	-	(3,882)
SFSA	7,784	-	25,334	-	(17,550)
AGRA	(2,249)	-	-	-	(2,249)
SNV Netherlands	(4,733)	-	83,258	-	(87,991)
Africa Harvest	89,076	-	-	-	89,076
NEPAD/FARA	17,083	-	-	-	17,083
Kirkhouse Trust	12,824	-	-	-	12,824
FOCAC	27,044	-	-	-	27,044
Sub-total Restricted - Charity	10,375,688	12,773,806	11,124,058	-	12,025,436
Total Charity	16,021,468	15,716,852	12,703,623	(1,177,739)	17,856,958
Unrestricted					
Pyropower - Agridrive Ltd	-	20,779	20,779	-	-
Subsidiaries' Activities - Agridrive Ltd & QBS Ltd	1,847,994	560,481	1,985,275	1,635,531	2,058,731
	17,869,462	16,298,112	14,709,677	457,792	19,915,689

*Transfers relate to unexpended portion of the sub-grant disbursed by the Foundation to QBS (subsidiary). This amount has been reduced from the total Charity expenditure and from the subsidiary's total income respectively.

Some restricted funds are in a deficit position due to the timing of recognition of grant income under the SORP. In the short term the projects funded by these restricted grants are pre-financed from general funds for cash flow purposes, the project expenditure is then matched with further restricted grants received since the year end when such expenditure meets the criteria of the related grant funding. At the end of 2020, five restricted grants (IITA, CIMMYT, SFSA, AGRA & SNV Netherlands) had negative fund balances. However, these balances will be fully reimbursed by the grantors in the subsequent year.

Unrestricted funds can be used in accordance with the charitable objects at the discretion of the Trustees. Restricted funds can only be used for the projects for which they are designated. Details are as given below:

- USAID grant is for Cowpea, NEWEST Rice and TELA Projects. USAID also extended a sub-grant to AATF for Seeds2B Project through SFSA (Lead Grantee).
- Bill and Melinda Gates Foundation grant is for the TELA, OFAB, Hybrid Rice, Qualibasic Seeds and CAMAP projects
- The African Development bank extended a sub-grant to AATF for TAAT Compacts through IITA (Lead Grantee)
- AGRA grant was for support of AATF's agricultural policy work
- CIMMYT sub-grant was for Maize Lethal Necrosis project
- Syngenta Foundation for Sustainable Agriculture (SFSA) leverages the PASTTA project.
- SNV Netherlands Development Organisation Ghana extended a grant to fund GATE project work in Ghana.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
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15 ANALYSIS OF NET ASSETS BETWEEN FUNDS

Group	2020			2019		
	Restricted	Unrestricted	Totals	Restricted	Unrestricted	Totals
	US\$	US\$	2020 US\$	US\$	US\$	2019 US\$
Tangible fixed assets	297,622	2,547,137	2,844,759	129,584	2,215,736	2,345,320
Intangible assets	-	102	102	-	3,151	3,151
Deferred tax asset	-	70,004	70,004	-	923,096	923,096
Biological assets	-	26,494	26,494	-	86,087	86,087
Grant debtors	955,421	197,441	1,152,862	1,016,698	-	1,016,698
Other debtors	318,493	869,677	1,188,170	373,506	1,032,392	1,405,898
Cash at bank and in hand	11,028,253	6,298,632	17,326,885	9,263,901	5,842,358	15,106,259
Inventories	-	436,364	436,364	-	423,801	423,801
					(1,357,780)	(1,357,780)
Capital Grant	-	(1,282,308)	(1,282,308)	-	-	-
Current Tax Payable	-	(3,061)	(3,061)	-	-	-
Creditors due within one year	(564,669)	(1,270,232)	(1,834,901)	(405,604)	(1,068,386)	(1,473,990)
Provisions for liabilities	-	-	-	-	-	-
Grant creditors	(9,685)	-	(9,685)	(9,685)	-	(9,685)
Deferred grant	-	-	-	-	(599,393)	(599,393)
	<u>12,025,435</u>	<u>7,890,250</u>	<u>19,915,685</u>	<u>10,368,400</u>	<u>7,501,062</u>	<u>17,869,462</u>
Charity						
	Restricted	Unrestricted	Totals	Restricted	Unrestricted	Totals
	US\$	US\$	2020 US\$	US\$	US\$	2019 US\$
Tangible fixed assets	297,623	40,392	338,015	129,584	33,657	163,241
Intangible assets	-	-	-	-	2,892	2,892
Investment in subsidiaries	-	12,556	12,556	-	12,556	12,556
Loans to group companies	-	940,012	940,012	-	885,322	885,322
Grant debtors	955,421	-	955,421	1,016,698	-	1,016,698
Other debtors	318,493	441,103	759,596	373,506	459,345	832,851
Cash at bank and in hand	11,028,253	6,124,993	17,153,246	9,271,192	5,079,539	14,350,731
Creditors due within one year	(564,669)	(801,991)	(1,366,660)	(405,604)	(827,534)	(1,233,138)
Grant creditors	(9,685)	-	(9,685)	(9,685)	-	(9,685)
	<u>12,025,436</u>	<u>6,757,065</u>	<u>18,782,501</u>	<u>10,375,691</u>	<u>5,645,777</u>	<u>16,021,468</u>

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
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FOR THE YEAR ENDED 31 DECEMBER 2020

16 NET CASH GENERATED FROM OPERATING ACTIVITIES

	Group Consolidated 2020 US\$	Group Consolidated 2019 US\$ As Restated*	Charity 2020 US\$	Charity 2019 US\$
Reconciliation of net income / (expenditure) for the year to net cash generated from operations				
(a) Net income for the year	1,588,431	5,326,372	2,761,033	4,531,438
Adjustments for:				
Depreciation	240,432	186,030	156,988	82,454
Amortisation	3,035	2,893	2,892	2,893
Loss / (Gain) on disposal of equipment	(32,181)	1,746	(26,205)	1,429
Interest received	(37,568)	(49,268)	(27,729)	(28,290)
Tax for year	-	(453,658)	-	-
Write-off of provision for liabilities	-	(192,312)	-	(192,312)
Current tax receivable	-	5,379	-	-
Movement in deferred grant	(599,393)	(666,547)	-	-
Movement in capital grant	(75,472)	1,083,866	-	-
Working capital changes:				
Decrease / (increase) in grants debtors	(136,164)	(367,882)	61,277	(367,882)
Decrease in other debtors	217,728	1,336,298	73,255	715,324
Increase / (decrease) in other creditors	360,911	(385,987)	133,522	(377,730)
(Increase) in inventories	(12,563)	(294,267)	-	-
Net cash provided by operating activities	1,517,196	5,532,663	3,135,033	4,367,324

* In 2019, interest that was received by the Charity of US\$28,290 was erroneously replicated in the Group column instead of the correct amount for the Group of US\$49,268. This has been corrected in this year's accounts hence restatement of prior year.

Analysis of funds: Group	At 1 January 2019 US\$	Cashflow 2019 US\$	At 31 December 2019 US\$	Cashflow 2020 US\$	At 31 December 2020 US\$
Cash	5,854,010	739,641	6,593,651	(3,007,288)	3,586,363
Short term deposits	5,021,875	3,490,733	8,512,608	5,227,915	13,740,523
Analysis of funds: Charity	At 1 January 2019 US\$	Cashflow 2019 US\$	At 31 December 2019 US\$	Cashflow 2020 US\$	At 31 December 2020 US\$
Cash	5,457,687	380,436	5,838,123	(2,425,399)	3,412,724
Short term deposits	5,021,875	3,490,733	8,512,608	5,227,915	13,740,523

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

17. INCORPORATION/REGISTRATION

The Foundation is incorporated and registered as a private company limited by guarantee and not having a share capital. It has been registered in the United Kingdom (January 2003) and in Kenya (April 2003), respectively. It was registered as a Charity in England and Wales in January 2005. It was granted host country status by the Government of Kenya in June 2005.

18. GOVERNANCE COSTS

	2020 US\$	2019 US\$
Honoraria	40,350	54,676
Meeting expenses	11,994	165,743
Consulting and other services (note 5)	137,211	94,910
	<u>189,555</u>	<u>315,329</u>

19. PENSION COMMITMENTS

The assets of the defined contribution pension scheme are held separately from those of the company in a range of funds provided and administered by an independent plan provider. Contributions of US\$323,564 (2019: US\$334,024) were charged to the statement of financial activities during the financial year as they became payable in accordance with the rules of the scheme. There are no outstanding contributions at the current year-end (2019: US\$nil).

20. FINANCIAL INSTRUMENTS

	Group Consolidated 2020 US\$	Group Consolidated 2019 US\$	Charity 2020 US\$	Charity 2019 US\$
FINANCIAL ASSETS				
Cash and receivables	19,470,477	17,523,476	18,868,264	16,200,280
	<u>19,470,477</u>	<u>17,523,476</u>	<u>18,868,264</u>	<u>16,200,280</u>
	Group Consolidated 2020 US\$	Group Consolidated 2019 US\$	Charity 2020 US\$	Charity 2019 US\$
FINANCIAL LIABILITIES				
Financial liabilities measured at amortised cost	1,847,647	1,462,302	1,376,345	1,242,823
	<u>1,847,647</u>	<u>1,462,302</u>	<u>1,376,345</u>	<u>1,242,823</u>

Financial assets measured at amortised cost comprise cash and cash equivalents, trade debtors and other receivables.
Financial liabilities measured at amortised cost comprise trade and other creditors.

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

21 INVESTMENTS IN SUBSIDIARIES

The following table lists the entities which are controlled by the group, either directly or indirectly through subsidiaries.

Company

	Carrying amount 2020	Carrying amount 2019
Agridrive Nigeria Limited	2,777	2,777
Qualibasic Seed Company Limited	9,779	9,779
	<u>12,556</u>	<u>12,556</u>

The above amount relates to share capital held by AATF in QBS (US\$ 9,779) and Agridrive (US\$ 2,777).

Summarised consolidated statement of financial position as at 31 December 2020

	Qualibasic Seed Company Limited		Agridrive Nigeria Limited		Total	
	2020	2019	2020	2019	2020	2019
	US\$	US\$	US\$	US\$	US\$	US\$
Assets						
Non-current assets	1,443,212	2,207,272	1,253,768	1,031,691	2,696,980	3,238,963
Current assets	1,374,423	1,777,844	72,350	136,708	1,446,773	1,914,552
Total Assets	2,817,635	3,985,116	1,326,118	1,168,399	4,143,753	5,153,515
Liabilities						
Non-current liabilities	59,750	680,330	459,805	438,986	519,555	1,119,316
Current liabilities	1,598,342	1,657,221	402,829	137,132	2,001,171	1,794,353
Total liabilities	1,658,092	2,337,551	862,634	576,118	2,520,726	2,913,669
Total net assets (liabilities)	1,159,543	1,647,565	463,484	592,281	1,623,027	2,239,846
Carrying amount of non-controlling interest	(6,110)	(7,290)	-	-	(6,110)	(7,290)

Summarised statement of profit or loss and other comprehensive income for the year ended 31 December 2020

	Qualibasic Seed Company Limited		Agridrive Nigeria Limited		Total	
	2020	2019	2020	2019	2020	2019
	US\$	US\$	US\$	US\$	US\$	US\$
Revenue	869,029	481,921	1,509,253	359,667	2,378,282	841,588
Other income and expenses	(293,961)	148,299	(1,561,725)	(763,166)	(1,855,686)	(614,867)
Loss before tax	575,068	630,220	(52,472)	(403,499)	522,596	226,721
Tax expense	(718,025)	266,887	(85,868)	139,906	(803,893)	406,793
Profit / (Loss) after tax	(142,957)	897,107	(138,340)	(263,593)	(281,297)	633,514
Other comprehensive income	(239,174)	88,208	-	-	(239,174)	88,208
Total comprehensive income	(382,131)	985,315	(138,340)	(263,593)	(520,471)	721,722

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21 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Summarised statement of cash flows for the year ended 31 December 2020

	Qualibasic Seed Company Limited		Agridrive Nigeria Limited		Total	
	2020	2019	2020	2019	2020	2019
	US\$	US\$	US\$	US\$	US\$	US\$
Cashflows from operating activities	(206,356)	729,532	512,077	(178,504)	305,721	551,028
Cashflows from investing activities	(141,040)	(1,218,117)	(558,186)	(345,967)	(699,226)	(1,564,084)
Cashflows from financing activities	56,187	782,177	41,068	499,480	97,255	1,281,657
Net increase / (decrease) in cash and cash equivalents	(291,209)	293,592	(5,041)	(24,991)	(296,250)	268,601

Subsidiaries with material non-controlling interests

The following information is provided for subsidiaries with non-controlling interests which are material to the reporting company. The summarised financial information is provided prior to intercompany eliminations.

Subsidiary	Country of incorporation	% Ownership interest held by non-controlling interest	
		2020	2019
Agridrive Limited	Nigeria	1%	1%
Qualibasic Seed Company Limited	Kenya	1%	1%

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
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22. GRANTS TO SUBGRANTEES

	Group		Company	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
COWPEA				
INERA - Burkina Faso	-	171,646	-	171,646
IAR - Zaria, Nigeria	94,074	204,581	94,074	204,581
CSIRO - Australia	-	449,924	-	449,924
CSIR - SARI, Ghana	94,982	99,175	94,982	99,175
Donald Danforth	-	149,899	-	149,899
NAERLS, Nigeria	74,800	-	74,800	-
Total COWPEA	263,856	1,075,225	263,856	1,075,225
CAMAP				
ZARI, Zambia	55,000	40,000	55,000	40,000
NaCRRI, Uganda	28,662	30,018	28,662	30,018
Total CAMAP	83,662	70,018	83,662	70,018
HYBRID RICE				
HEAL	320,308	533,155	320,308	533,155
aWhere Inc	-	(60,000)	-	(60,000)
TARI, Tanzania	4,740	-	4,740	-
Total HYBRID RICE	325,048	473,155	325,048	473,155
NEWEST RICE				
CIAT	-	107,126	-	107,126
Arcadia Biosciences, USA	-	223,202	-	223,202
NaCRRI - Uganda	64,000	-	64,000	-
NCRI - Nigeria	90,000	29,822	90,000	29,822
CRI, Ghana	62,000	40,000	62,000	40,000
Donald Danforth	245,346	-	245,346	-
Total NEWEST RICE	461,346	400,150	461,346	400,150
SEEDS2B				
Chitedze Research Station, Malawi	-	19,200	-	19,200
Agricultural Research Trust (ART) Farm, Zimbabwe	-	4,925	-	4,925
Bvumbe Research, Malawi	-	4,800	-	4,800
Makerere University, Uganda	8,000	36,435	8,000	36,435
NARO Holdings	7,800	16,217	7,800	16,217
CEDO - Uganda	3,000	3,000	3,000	3,000
NaCRRI - Uganda	20,443	8,066	20,443	8,066
WACCI - Ghana	-	28,084	-	28,084
NaSARRI - Uganda	5,000	8,324	5,000	8,324
DARS	15,400	-	15,400	-
Agri Capital	1,800	8,324	1,800	8,324
Total SEEDS2B	61,443	129,051	61,443	129,051
STRIGA				
CIMMYT, Colombia	37,463	-	37,463	-
Total STRIGA	37,463	-	37,463	-
POTATO				
CIP, Kenya	60,000	-	60,000	-
Total POTATO	60,000	-	60,000	-

AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020

22. GRANTS TO SUBGRANTEES

	Group		Company	
	2020	2019	2020	2019
	US\$	US\$	US\$	US\$
OFAB				
OFAB Kenya, ISAAA	349,290	37,860	349,290	37,860
OFAB Uganda, UNCST	100,000	53,075	100,000	53,075
OFAB Nigeria, NABDA	200,000	124,830	200,000	124,830
OFAB Tanzania, COSTECH	100,000	48,400	100,000	48,400
OFAB Ethiopia, EIAR	150,000	47,285	150,000	47,285
OFAB Burkina Faso, INERA	120,000	30,000	120,000	30,000
OFAB Ghana, CSIR	100,000	31,000	100,000	31,000
Total OFAB	1,119,290	372,450	1,119,290	372,450
WEMA				
Bayer, USA	-	152,293	-	152,293
EIAR - Ethiopia	-	253,919	-	253,919
Total WEMA	-	406,212	-	406,212
TAAT				
IITA, Nigeria	184,468	124,744	184,468	124,744
Uganda Seed Trade Association (USTA)	2,651	9,106	2,651	9,106
NASECO, Uganda	-	2,000	-	2,000
Multi Agroseed, Tanzania	-	4,200	-	4,200
Farm Inputs Care Centre (FICA), Uganda	4,200	-	4,200	-
Simba Seeds, Uganda	-	2,800	-	2,800
E. Africa Seed, Kenya	-	5,600	-	5,600
Namburi Agricultural Company, Tanzania	-	3,750	-	3,750
Simlaw Seed Co., Kenya	-	2,500	-	2,500
NaCCRI, Uganda	-	9,504	-	9,504
Oil crop	-	2,100	-	2,100
AgriSeed Limited	-	15,000	-	15,000
Dryland Limited, Kenya	-	6,000	-	6,000
Ultravetis East Africa, Kenya	-	2,100	-	2,100
TARI, Tanzania	-	7,950	-	7,950
Rural O Programme (ROP), Kenya	1,194	8,779	1,194	8,779
IRAD	-	12,600	-	12,600
NARO Holdings, Uganda	-	45,576	-	45,576
SARI, Ghana	-	12,375	-	12,375
EIAR, Ethiopia	-	35,000	-	35,000
KALRO, Kenya	5,978	32,201	5,978	32,201
AgriMark Limited	-	2,400	-	2,400
INRAB	4,357	-	4,357	-
Market Matters Inc., USA	135,680	143,010	135,680	143,010
Total TAAT	338,528	489,295	338,528	489,295
TELA				
KALRO, Kenya	263,848	62,390	263,848	62,390
Bayer, USA	1,750,172	1,553,423	1,750,172	1,553,423
TARI, Tanzania	5,645	95,746	5,645	95,746
EIAR, Ethiopia	98,034	-	98,034	-
Biotechnology Society, Tanzania	20,364	-	20,364	-
CIMMYT, Mexico	502,182	973,697	502,182	973,697
ARC, South Africa	377,755	-	377,755	-
IAR, Nigeria	157,011	164,517	157,011	164,517

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

22. GRANTS TO SUBGRANTEES

	Group		Company	
	2020 US\$	2019 US\$	2020 US\$	2019 US\$
Total TELA	3,175,011	2,849,773	3,175,011	2,849,773
QBS				
QBS Company Kenya	394,333	2,501,177	394,333	2,501,177
Grant from AATF to QBS	(1,177,739)	(2,101,516)	-	-
Total QBS	(783,406)	399,661	394,333	2,501,177
Total Sub-grants	5,142,241	6,664,990	6,319,980	8,766,506

23. POST BALANCE SHEET EVENTS

In 2021, the Foundation incorporated a for-profit company known as EcoBasicSeed Company in Nigeria. The company aims at producing and supplying foundation seed of the highest quality and purity to support certified seed production.

24. DEFERRED GRANT

Deferred income relates to income granted by BMGF through the Foundation to fund activities of its subsidiary, QBS Kenya Ltd. The grant is recognised as grant income when expenses relating to it have been incurred. The amount in deferred grant relates to the portion of funds sub-granted but not yet expended as at 31 December 2019. However, in the 2020 financial year, QBS Kenya Ltd had expended an amount of US\$197,441 over and above the disbursements received. This has been reported together with the Foundation's grant debtors in Note 10 above.

	Group 2020* US\$	Group 2019 US\$	Charity 2020 US\$	Charity 2019 US\$
Opening balance	(599,393)	(1,265,940)	-	-
Grant disbursed	(390,867)	(2,501,177)	-	-
Expenses incurred against the grant	1,064,399	1,985,609	-	-
Assets purchased from the grant	79,959	1,182,115	-	-
Offset - amount receivable from shareholder	43,343	-	-	-
	197,441	(599,393)	-	-

* In 2020, the deferred grant was in a negative position to the tune of US\$197,441. This amount has been combined with the Charity's grant debtors' amount and reported under Note 10 above.

**AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2020**

25 INVENTORIES

Inventory items are made up of the following:

	Group 2020 US\$	Group 2019 US\$	Charity 2020 US\$	Charity 2019 US\$
Packaging materials	15,953	15,446	-	-
Hybrid maize	316,908	349,273	-	-
Inventory - fertilisers	497	539	-	-
Inventory - herbicides	16,977	37,092	-	-
Inventory - insecticides	73	2,230	-	-
Inventory other	85,956	19,221	-	-
	436,364	423,801	-	-