AFRICAN DEVELOPMENT FUND

PROJECT : TECHNOLOGIES FOR AFRICAN AGRICULTURAL TRANSFORMATION (TAAT) PHASE II

COUNTRY: MULTINATIONAL

Date : June 2022

Appraisal Team	Team Leader	Innocent MUSABYIMANA, Chief Agric. Technologies Officer, AHAI.2	3519
	Team Members	Nnaemeka KORIE, Senior Agricultural Economist, AHAI.2 Mbianyor BAKIA, Chief Envir. & Social Safeguards Officer, RDNG Patrick OWUORI, Regional Princ Procurement Coordinator, RDNG David ENGWAU, Senior Procurement Specialist, SNFI Nathalie GAHUNGA, Chief Gender Specialist, RDGW Balgis OSMAN-ELASHA, Chief Climate Change/G. Growth Expert, PECG Edith ADERA, Principal Climate Change & G. Growth Officer PRCG Benjamin WAMAMBE, Principal Legal Officer, RDGS Mark EGHAN, Principal Agricultural Economist, AHAI.1 Rabiu Yakubu BAKO, Principal Disbursement Officer, RDNG Nelly MAINA, Principal Gender Specialist, AHGC Patrick AGBOMA, Project Development/Management Consultant, AHAI.2 Chioma ANYANWU, Senior Disbursement Officer, RDNG Annah Rutebuka MUJA, Environment & Social Safeguards Specialist, SNSC Florentine TCHOFFO, Environment & Social Safeguards Specialist, RDNG Abdoulaye Tetie BAKAYOKO, Financial Management Specialist, SNFI.2 Innocent ONAH, Climate Change & Green Growth Consultant, RDNG Tautsagae BRENDA, Consultant, PCSC Tisungeni ZIMPITA, Senior Nutrition and Social Protection Officer, AHHD2 Sagal ADAM, Consultant, AHHD2 Ozong AGBORSANGAYA-FITEU, Princ Fragility/Resilience Officer, RDTS Alex YEANAY, Senior Fragility and Resilience Officer, RDTS Ethel ELOKOBI, Senior Fragility and Resilience Officer, RDTS Abdulrashid Iliya, Junior Consultant, AHAI.2	5485 4214 8240 6765 3383 1494 4327 3335 4362 7764 7788 7798 7788 8462 7747 6174 7749 5437 5491 3340 3340 7074
	Sector Manager	Laouali GARBA, AHAI.2	1990
	Sector Director	Martin FREGENE, AHAI	5586
	Directors-General	Marie-Laure AKIN-OLUGBADE, RDGW Nnnenna NWABUFO, RDGE	4018 8343

		Serge N'GUESSAN, RDGC Leila MOKADDEM, RDGS Mohamed El AZIZI, RDGN Lamin BARROW, RDNG	6800 7301 1414 2096
Peer Reviewers		Bilgo, Ablasse, Chief Climate Smart Agriculture Officer, AHAI.2 Rebecca Dadzie, Senior Agribusiness Officer, AHAI.1 Elizabeth Mukewa, Gender Consultant, AHGC.1 Julien Bouilhol, Principal Operations Management Officer, RDRI Ometere Omoluwabi-Davies, Regional Integration Coordinator, RDNG.0 Berndt Jerome, Principal Fragility and Resilience Officer, RDTS Egeh, Mohamud Hussein,	- 1726 5477 5532 7770 4355 8260

AFRICAN DEVELOPMENT FUND

MULTINATIONAL

TECHNOLOGIES FOR AFRICAN AGRICULTURAL TRANSFORMATION (TAAT) PHASE II

AHVP/RDGW/AHAI DEPARTMENTS

July 2022

TABLE OF CONTENTS

Contents

APPENDICES

Currency Equivalents

June 2022

1 UA = USD 1.35

Fiscal Year

1st January – 31st December

Weights and Measures

1 metric tonne	=	2,204 pounds (lbs)
1 kilogramme (kg)	=	2.200 lbs
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch (")
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

Acronyms and Abbreviations

ACRONYMS	ABBREVIATIONS	ACRONYMS	ABBREVIATIONS
ACVC	Agriculture Commodity Value Chain	**IITA**	International Institute of Tropical Agriculture
ADF	African Development Fund	**IFDC**	International Fertilizer Development Cooperation
AFD	Agence Française de Développement	**ICRAF**	International Council for Research in Agro-Forestry (World Agroforestry Centre)
AGRA	Alliance for a Green Revolution in Africa	**ICRISAT**	International Crops Research Institute for Semi-Arid Tropics
APPSA	Agriculture Productivity Programme for Southern Africa	**IFPRI**	International Food Policy Research Institute
ATPS	African Technology Policy Studies Network	**ILRI**	International Livestock Research Institute
AWARD	African Women in Agriculture Research & Development	**ISDB**	Islamic Development Bank
BMGF	Bill & Melinda Gates Foundation	**IWMI**	International Water Management Institute
CAADP	Comprehensive Africa Agriculture Development Programme	**KFW**	German Development Bank

CGIAR	Consultative Group on International Agricultural Research	**MDB**	Multilateral Development Bank
CSA	Climate Smart Agriculture	**NARES**	National Agricultural Research & Extension Systems
CSP	Country Strategy Papers	**OCP**	Office Cherifien de Phosphates
CORAF/WECARD	West and Central African Council for Agricultural Research	**PIAs**	Priority Intervention Areas
CDTC	Commodity Technology Delivery Compacts	**PSC**	Programme Steering Committee
COMESA	Common Market for Eastern and Southern Africa	**PMU**	Project Management Unit
DPs	Development Partners	**RBLF**	Results-Based Logical Framework
EA	Executive Agency	**RF**	Rockefeller Foundation
EAAPP	East African Agriculture Productivity Programme	**RMC**	Regional Member Countries
ECOWAS	Economic Community of West African States	**RPG**	Regional Public Good
ENABLE	Empowering Novel AgriBusiness-Led Employment	**RO**	Regional Operations
FARA	Forum for Agricultural Research in Africa	**RTDI**	Regional Technology Delivery Infrastructure
FAW	Fall Armyworm	**SADC**	Southern African Development Community
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	**SARD-SC**	Support to Agric. Research for Dev't of Strategic Crops in Africa
IARC	International Agricultural Research Centers	**SRO**	Sub Regional Organizations
ICARDA	International Centre for Agricultural Research in Dry Areas	**TYS**	Ten-Year Strategy
ICT	Information Communications and Technology	**WAAPP**	West African Agriculture Productivity Programme
IFAD	International Fund for Agricultural Development	**WB**	World Bank

Grant information

Client's information

EXECUTING AGENCY : International Institute of Tropical Agriculture

Financing plan

Source	Amount (million)		Instrument
	UA	USD	
African Development Fund (ADF) RO	20.30	27.41	Grant
Beneficiaries	2.08	2.81	Kind
TOTAL PROJECT COST	**22.38**	**30.22**	**-**

**if applicable*

Timeframe - Main Milestones (expected)

Concept Note Approval	15 June 2022
Board approval	15 July 2022
Effectiveness	01 August 2022
Completion	31 December 2024
Last Disbursement	31 March, 2025

PROGRAMME SUMMARY

1.1 As a demonstration of its commitment to unleash Africa's agricultural potential and drive its Feed Africa strategy, the Board of Directors of the African Development Bank, on November 28, 2017, approved the Technologies for African Agricultural Transformation (TAAT) – a major continent-wide initiative designed to boost agricultural productivity across the continent by rapidly delivering proven technologies to millions of farmers. TAAT aims to double crop, livestock, and fish productivity by expanding access to productivity-increasing technologies to more than 40 million smallholder farmers across Africa by 2025. TAAT seeks to generate an additional 120 million metric tons (T) of food while lifting 130 million people out of poverty.

1.2 TAAT's partnership with the Consultative Group on International Agricultural Research (CGIAR) Centres and Advanced Agricultural Research Institutes, the world's largest global agricultural innovation network and provider of agricultural technologies. The CGIAR and Advanced Agricultural Research Institutes work in consortium with National Agricultural Research and Extension Systems (NARES), and Ministries of Agriculture. The Commodity Compacts correspond to the following value chains: rice, wheat, maize, sorghum & millet, beans, cassava, sweet potatoes, fish and small livestock. They are complemented by Enabler Compacts that address cross-cutting themes: soil fertility management, water management, capacity building, policy support, youth in agribusiness and fall army worm management.

1.3 The pace by which many of the established compact value chains have made tangible progress is commendable. The maize compact, led by the African Agriculture Technology Foundation (AATF), has worked with 30 seed companies to produce 27,000 T of drought-tolerant maize varieties which were used by 2.6 million maize farmers. Several other compacts are making similar strides, with the Enabling Policy Compact making substantial contributions to regional seed policy harmonization, certification, and registration protocols Appendix 2.

1.4 The TAAT Regional Technology Delivery Infrastructure (RTDI), which comprises a Clearinghouse, Project Management Unit, and the Compacts have been instrumental in deploying its proven technologies and expertise in support of country investments, contributing through project design and preparation to ensure a selection of relevant and cutting-edge production technologies, build in appropriate institutional and delivery infrastructure, and support capacity development of project teams and implementing partners with an eye toward value-for-money and impact. Since its inception, TAAT has contributed to more than USD 800 million in Bank investments in agricultural value chain projects across 19 RMCs Appendix 3 and leveraged a total of USD 500 million in co-financing by the World Bank, IFAD, IsDB, GEF, and others.

1.5 The Commodity and Enabler Compacts in TAAT II, have been reorganized based on lessons learned in TAAT I. For the Commodity Compacts the Nutrition Commodity Compact has been established that integrates commodities that maximize nutrition, namely: Orange Flesh Sweet Potato(OFSP), High Iron Bean(HIB), Soybean, and Vegetables. TAAT I Enablers Policy Support and Enable Youth will remain. TAAT I Enablers Soil Fertility, Water, and Fall Army Worm have been rationalized and will offer support through consortia led by the Commodity Compacts to ensure improved co-ordination.

1.6 TAAT II will work in partnership with RMCs to support the implementation of the US$ 1.5 billion Africa Emergency Food Production Facility (AEFPF), which the AfDB Board approved later in May 2022. This Facility aims to deliver certified seeds, fertilizers, extension services, and post-harvest management technologies to 20 million farmers. AEFPF intends to produce 11 million tons of wheat, 18 million tons of maize, 6 million tons of rice, and 2.5 million tons of soybeans. Contributions to the Facility will mainly come from the Bank Group through the African Development Bank and African Development Fund financing windows. Bilateral and multilateral partners will also contribute

to AEFPF. TAAT II will support ADF-RMCs in the implementation of AEFPF through policy and institutional reforms to accelerate the delivery of fertilizers and climate-resilient seeds for 20 million farmers. TAAT II builds on the achievement of TAAT I and will strengthen National and Regional Seed Systems for selected RMCs to deliver enough climate-resilient seed to farmers using a market-based model and provide support to the local private sector to scale technologies and services (seeds, fertilizers, extension) at village level. The policy reform and enabling environment compact will continue its efforts to harmonise regional policies critical to agricultural sector development with a focus on seed systems. The enhanced policy compact will build on the Bank's relationship with the African Union with which we will jointly reach out to RECs to ensure greater traction and ownership of policy harmonization efforts within the framework of the CAADP commitments, and the agricultural pillar of the Africa Continental Free Trade Agreement (AfCFTA).

1.7 Like TAAT I, TAAT II is a Regional Public Good characterized by non-compete and non-exclusion. All 37 low-income and ADF countries in Africa will benefit from TAAT II, although implementation will be on demand-driven basis and priority will be given to ADF countries to support the implementation of AEFPF. These are: Benin; Burkina Faso; Burundi; Cameroun; Central Africa Republic; Chad; Comoros; Cote d'Ivoire; Democratic Rep. of Congo; Djibouti; Eritrea; Ethiopia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mozambique; Niger; Rwanda; Sao Tome; Senegal; Sierra Leone; Somalia; South Sudan; Sudan; Tanzania; The Gambia; Togo; Uganda; Zambia; and Zimbabwe.

Results Based Logical Framework

A	PROJECT INFORMATION				
▌PROJECT NAME AND SAP CODE: ***Technologies for African Agricultural Transformation: Phase II (TAAT II); P-Z1-AA0-139***			▌COUNTRY/REGION: ***Multi-Country***		
▌PROJECT DEVELOPMENT OBJECTIVE: **Increase agricultural productivity and household incomes by expanding access to climate-resilient and productivity-increasing technologies in low-income RMCs across Africa by 2025**					
▌ALIGNMENT INDICATOR (S): (i) **Number of people who are hungry / malnourished (millions) ; (ii) Agricultural labor productivity ($ per worker).**					
B	**RESULTS MATRIX**				
RESULTS CHAIN AND INDICATOR DESCRIPTION	**RMF/ INDICATOR**	**UNIT OF MEASUREMENT**	**BASELINE (2022)**	**TARGET AT COMPLETION (2024)**	**MEANS OF VERIFICATION**
▌**OUTCOME STATEMENT 1:** Increased agricultural productivity and income					
OUTCOME INDICATOR 1.1: Average productivity of cereals, legumes, roots and tubers, small Livestock and Fisheries across Compact intervention sites	☑	T/ha g/day g	Cereals: 2.68 Roots and tuber: 20.6 Legumes:1.25 Forage: 2 Livestock (live weight): 66.6 Fisheries:424.5	Cereals:3.4 Roots and tuber: 25 Legumes :1.85t Forage: 2.2 Livestock (live weight): 100 Fisheries:1.3kg/Fish	1. Annual National Bureau of Statistics Reports. 2. TAAT II Progress reports
OUTCOME INDICATOR 1.2: Average Household incomes across Compact intervention sites	☑	US$	1,117	1,980	1. Annual National Bureau of Statistics Reports. 4. TAAT II Progress reports
OUTCOME INDICATOR 1.3: Enhanced access and use of improved by farmers (disaggregated per seed types; fingerlings, livestock breeds)	-	Number	11 million	40 million	1. Quarterly Programme Monitoring Reports. 2. TAAT II Progress reports

OUTCOME INDICATOR 1.4: Improved adoption and use of climate-smart agriculture technologies by farmers	☑	Number	11 million	40 million	1. Quarterly Programme Monitoring Reports. 2. Annual CG Center Reports. 3. Annual NARES Reports
❙ **OUTCOME STATEMENT 2:** Improved enabling environment for the deployment of technologies					
OUTCOME INDICATOR 2.1: Number of Policies influenced by TAAT at regional and country levels promoting dissemination of modern agriculture technologies. (Disaggregated by policy focus)	-	Number	0	10	1. Annual National Bureau of Statistics Reports. 2. TAAT II Progress reports
❙ **OUTCOME STATEMENT 3:** Increased employment for men, women, and youths.					
OUTCOME INDICATOR 3.2: Increased commitment of Agri entrepreneurs across the commodity value chains	☑	Number	262,786	450,000	1. Annual National Bureau of Statistics Reports. 2. TAAT II Progress reports
❙ **OUTPUT STATEMENT 1:** Removal of policy bottlenecks related to input delivery that are climate smart.					
OUTPUT INDICATOR 1.1: Policies adopted on delivery of climate smart inputs.	-	Number	0	8	1. Quarterly Programme Monitoring Reports.2. Annual NARES Reports 3. TAAT II reports
OUTPUT INDICATOR 1.2: Capacities of national seed system and research institutions strengthened	-	Number	75	200	1. Quarterly Programme Monitoring Reports.2. Annual NARES Reports 3. TAAT II reports
❙ **OUTPUT STATEMENT 2:** Mainstreaming Climate Smart Agriculture (CSA) in country programmes					
OUTPUT INDICATOR 2.1: AfDB and Development Partners' country programs mainstreaming TAAT technologies component into project documents and implementation.	-	Number	19	37	1. Quarterly Programme Monitoring Reports. 2. Annual CG Center Reports 3. TAAT II reports

OUTPUT INDICATOR 2.2: TAAT support AEFPF operations in ADF RMCs	-	Number	0	24	1. Quarterly Programme Monitoring Reports. 2. Annual CG Center Reports. 3. AEFPFF reports. 4. TAAT II reports
❙ **OUTPUT STATEMENT 3:** Menu of best-bet climate resilient agricultural production technologies adopted to enhance agricultural productivity					
OUTPUT INDICATOR 3.1: Menu of best-bet climate-smart agricultural production enhancing technologies availed to farmers	-	Number	100	120	1. 1. Quarterly Programme Monitoring Reports.2. Annual NARES Reports 3. TAAT II reports
OUTPUT INDICATOR 3.2: Farmers trained on good agricultural practices and climate-smart agricultural practices disaggregated per gender)	-	Number	209,934	1 million (at least 40% women)	1. Quarterly Programme Monitoring Reports. 2. TAAT II reports
❙ **OUTPUT STATEMENT 4:** Certified and climate resilient seeds of maize, rice, wheat, cassava, small livestock, sorghum/millet, orange flesh sweet potato, high-iron beans and fish produced and distributed					
OUTPUT INDICATOR 4.1: Volume of certified and climate resilient seeds produced and distributed	☑	MT	168,145	250,000	1. Quarterly Programme Monitoring Reports. 2. Annual CG Center Reports. 3. TAAT II Progress reports
OUTPUT INDICATOR 4.2: Seed roadmaps in target commodities developed	-	Number	2	15	1. Quarterly Programme Monitoring Reports. 2. TAAT II Progress reports.
❙ **OUTPUT STATEMENT 5:** Agripreneurs (women and youth) supported and linked to TAAT technology delivery and value chain ecosystem					
OUTPUT INDICATOR 5.1 Entrepreneurs engaged in Agribusiness - Small and Medium Enterprises (disaggregated gender)	☑	Number	3,594	5,000 (50% women)	1. Quarterly Programme Monitoring Reports and 2. Quarterly Market Reports 3. TAAT II Progress reports

TAAT II Programme Timeframe

Year	2022			2023				2024				2025
Quarter	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**
Initial Activities												
Internal Processing of Appraisal												
Loan Negotiations												
Board approval												
Grant protocol signature												
Recruitment of Programme Staff /Nomination of Programme Steering (												
Satisfaction of conditions for effectiveness & first disbursement												
Programme launching/training of programme teams in FM & Procurem												
Preparation and validation of procedures manuals												
Preparation & signing of MoUs with various implementing partners												
Component 1: Creation of Enabling Environment (EE)												
Design and monitoring of supporting policies												
Technology survey & assessment												
Assessment of Seed Systems and livestock (poultry) breeds disseminat												
Proposals on crop/livestock (poultry) campaigns of proven agricultural												
National technology deployment and promotion												
Component 2: Regional Technology Delivery Infrastructure (RTDI												
Farmers and input dealers' registration												
Design and implementation of trans-national campaigns for pests & dis												
Crop/Livestock (poultry) technology delivery compact activities												
Component 3: Deployment of Appropriate Technologies (DAT)												
Facilitation of trans-national control of pest and diseases (through awar												
Expansion of strategies for deployment of proven technologies												
Design and implement wide-scale farmer and innovative extension mo												
Component 4: Programme Management (PM)												
Preparation, approval and floating of bidding docs & contract awards f												
Contract execution for goods and services												
Quarterly reports submission												
Annual reports submission												
Programme Work plans and Budgets												
Steering committee meetings												

Bank’s supervision missions												
Audit												
Mid-term review												
Programme Completion Report												

1. INTRODUCTION: THE PROPOSAL

1.1 Management submits the following Report and Recommendation for the implementation of Phase II of the Technologies for an African Agricultural Transformation framework to be utilised in the operationalizing of the Africa Emergency Food Production Facility (AEPF), approved by the AfDB Board in May 2022, in selected ADF Countries through policy and institutional reforms to accelerate the delivery of fertilizers and climate-resilient seeds for 20 million farmers. The Framework will strengthen National Seed Systems for selected RMCs using a market-based model and support the local private sector to scale technologies and services (seeds, fertilizers, extension) at village level.

1.2 The TAAT program (across all phases) aims to provide benefits via increased food security and income, raising farmer's household incomes by an average of USD 600 per annum in target areas and reaching an estimated 40 million people, and reducing by as much as a third the total number of hungry people on the continent.

1.3 TAAT II's support to AEFPF will be key to foster an enabling environment to facilitate the movement of inputs and outputs across borders through collaboration with RECs to build RMCs' capacities to take advantage of regional initiatives such as harmonised agricultural input policies and regulations, cross-border technology delivery strategies, and regional trade.

2. CONTEXT

2.1 **Rationale for Bank Group's Involvement**. On November 28, 2017, the Board of Directors of the African Development Bank, approved the Technologies for an African Agricultural Transformation (TAAT) framework document, Phase I, with Phases II and III to be considered subsequently. TAAT is a key flagship programme of the Bank's Feed Africa strategy (2016 - 2025), which is one of its "High Fives", accelerating achievement of the Bank's Ten-Year Strategy (TYS), 2013 - 2022. It also aligned the Regional Integration Policy and Strategy (2014-2023) and Private Sector Development Policy (2013-2022). This document relates to TAAT Phase II.

2.1.1 The Bank is in a strong position to channel via this investment the power of science, knowledge, and innovations required to catalyse Africa's agricultural transformation. The Bank already has significant experience in supporting agricultural development in Africa. In addition, TAAT II will support the implementation of the US$ 1.5 billion AEFPF.

2.1.2 TAAT II will consolidate the achievements of TAAT I, working with the RMCs and their national partners, with support from RECs, to accelerate access and use proven technologies to increase productivity and build resilient food systems. TAAT contributes to pillar II of the Regional Integration Strategic Framework of the AfCFTA, (2018 – 2025). TAAT II is a Regional Public Good characterised by non-competition and non-exclusion. All 37 low-income and ADF countries in Africa will benefit from it, although implementation will be on demand-driven basis, with priority given to ADF countries. These are low-income countries with weak seed systems, in a state of fragility, and who stand to benefit from AEFPF.

2.1.3 TAAT II, will contribute to addressing challenges in policy and economic diversification identified in current RISPs and support RMC's implementation of country strategies that will boost agriculture and agribusiness, creating employment (green jobs), especially for young people. It is aligned to key continental initiatives such as the Boost Intra-African Trade (BIAT), addressing emerging regional issues or development challenges. The overall objective and outputs of TAAT and

BIAT include scaling up agricultural productivity, fostering trade and African market integration by boosting cross-border trade and increased productivity.

2.1.4 The programme will help achieve the Bank's policy commitments under Pillar I of ADF-15 regarding: (i) technologies for agriculture; (ii) climate-smart agriculture; (iii) gender inclusivity; and (iv) promote regional quality infrastructure that connects African markets and supports women. The programme will also contribute to meeting objectives under ADF-15's Pillar II: (i) to address regional dimensions. TAAT II is eligible to RO criteria (Volume II technical annex C11).

2.2 Program Linkages with Countries' Strategies and Objectives

2.2.1 TAAT aligns with the inclusive growth and to green growth objectives of the Bank's Ten-Year Strategy (TYS). It also resonates with four of the Bank's "High 5s", contributes to the Regional Integration Policy and Strategy (2014-2023) and is aligned with the transition states. TAAT II will facilitate the integration of proven technologies into regional and national agriculture development programs funded through the Bank's sovereign loans and grants. The Program will also help the RECs, their specialized institutions, and the sub-Regional Organizations (SROs) assist RMCs to adapt regional policies domestically. Moreover, TAAT is aligned with the Bank's new strategy to address fragility and building more resilient institutions, economies, and societies in all its RMCs (Appendix 1).

2.3 Donor Co-ordination

2.3.1 Across the TAAT target countries, other development partners (DPs), UN agencies, NGOs, and Implementing Partners have also been active in the agricultural sector and contributed to TAAT. The Bill & Melinda Gates Foundation (BMGF) contributed US$1.14 million to TAAT I at the start and US$6.05 million a year later.

2.3.2 Another notable achievement of TAAT is the scaling up technical assistance by the Compacts in designing TAAT country programs and other Bank agricultural value chain investments**.** The Compacts participated in the design of 11 agricultural value chain projects approved from late 2017 and 2018 totalling UA 335.72 million. Another eight projects in the loan/grant amounts of UA 262.41 were approved 2019; and UA 322 million were committed to 14 projects in 2020 and 2021 and leveraged a total of USD 500 million in country programs financing by the World Bank, IFAD, IsDB, and others (Appendix 3).

2.3.3 TAAT II is the outcome of extensive consultations with development partners in the agricultural sector across Africa. It benefits from parallel co-financing from the World Bank through CORAF (USD 1.5 million), while BMGF has increased its commitment to TAAT II to USD 9 million. In addition, TAAT II is co-ordinating more actively with FAO, building on the established joint MoU with the Bank, and formalising the relationship through contributions of FAO's Investment Centre to the TAAT Policy compact. The discussions to co-fund the TAATII at $ 4 million this year from The Norwegian Agency for Development Cooperation is very much advanced.

3. PROGRAMME DESCRIPTION

3.1 Programme Objective

The development objective remains to "increase agricultural productivity and household incomes by expanding access to climate-resilient and productivity-increasing technologies in low-income RMCs across Africa by 2025". Specifically, TAAT II is to "enhance agricultural productivity and policy reform to support the selected RMCs to implement the AEFPF".

3.2 Programme Components

As TAAT expands the scope of its activities to meet its broader objectives, the components are Creation of Enabling Policy and Regulatory Environment (EE); Regional Technology Delivery Infrastructure (RTDI); Deployment of Appropriate Agricultural Technologies (DAT); and Project Management and Co-ordination (PM&CH). The TAAT components description is detailed in appendix 13.

3.3 Technical Solution Retained and other Options Explored

The technical solution seeks to focus the technically excellent but hitherto unco-ordinated efforts of CGIAR and work with National Agricultural Research and Extension Systems (NARES). This could only be achieved in a Programmatic approach where RMCs get involved as the Programme expands.

3.4 Programme Type: TAAT II

3.4.1 The TAAT framework was designed in three phases expanding its scope over time, guided by lessons learned, growing delivery capacity and increasing knowledge to take advantage of rapidly expanding opportunities in the agriculture sector across the continent. The design of TAAT II follows this logic, with main areas of additional or revised scope.

3.4.2 **Deepening support to key commodities:** TAAT II selection of commodities, and the related distribution of resources, is based on the need to focus investments to ensure substantial impact on agricultural commodities that are central to food and nutrition security, import substitution and constitute a considerable proportion of country (and household) food bills. They are also identified as commodities that are aligned to Feed Africa Flagships and build on previous TAAT investments. TAAT II maintains the same commodities as TAAT I, with the addition of a Nutrition Compact (OFSP, HIB, Soybean, Vegetable) tasked to ensure impact on nutrient-rich commodities to help build awareness and improved adoption of high-nutrition foods.

3.4.3 **Rationalising Enablers for increased focus and improved impact:** Under TAAT II, more resources will flow to commodities conditional on a clear articulation of needs, related deliverables, and performance contracts signed with partners. TAAT will continue to support a more focused set of Enablers, **offering critical cross-cutting investments across commodities and value chains**. TAAT I Enablers will continue with additional partners and an expanded mandate, although with some modifications. A Compact on Soybean will be included in TAAT II to offset the oilseeds import deficit caused by disrupted supply chains due to the Russian-Ukraine conflict

3.4.4 The **policy reform and enabling environment Compact** will continue its efforts to harmonise regional policies critical to agricultural sector development with a focus on seed systems and fertilizers. It will invest in specific actions to support policy implementation. The enhanced policy compact will build on the Bank's relationship with the African Union to jointly work with regional economic communities to ensure greater traction and ownership of policy harmonisation efforts within the framework of the CAADP.

3.4.5 The TAAT ecosystem will support the RMCs to **catalyse private sector and agro-dealer networks** involved in the agricultural supply chain and provide technical assistance for the establishment of appropriate digital platforms. TAAT will accelerate supporting the full integration of agricultural producers into postproduction value chain development.

3.4.6 TAAT II will be more purposeful in **mainstreaming gender** across all activities and will invest in initiatives to support women's participation in the agricultural sector and boost women-owned enterprises. TAAT ENABLE will further deepen its efforts to develop capacity and investment for Youth in Agribusiness. Synergies between TAAT's Gender and Youth initiatives will be maximized.

3.4.7 Going forward more resources across the TAAT RTDI will support **streamlining of the results measurement framework**; all compact implementing agencies will allocate sufficient resources for implementation of M&E.

3.5 Financing Needs

3.5.1 Program Cost

The total cost of the Program is estimated at UA 22.38 million (USD 30.22 million) net of taxes and based on 2022 prices comprising UA 6.51 million (USD 8.78 million) or 29.1% in local costs and UA 15.88 million (USD 21.43 million) or 71.9% in foreign costs. This cost is inclusive of price contingencies estimated at average rates of 2.3% (Appendix 14).

3.5.2 Program financing arrangements

3.5.2.1 Out of the total project cost, Bank Financing will amount to UA 20.30 million (USD 27.41) (90.7%) to cover 100% of Services; 100% of contingencies; and 100% of contingencies envisaged as operating costs. The beneficiaries will contribute UA 2.08 million (USD 2.81 million) as in-kind towards local costs related to equipment and machinery, office space and land for demonstration for the project. Table 2 presents the sources of financing for the Program. On a parallel financing arrangement, BMGF will provide UA 6.6 million or USD 9 million to support the Clearinghouse in the areas of in-country co-ordination, public sector investments, and leveraging the private sector partners for scaling. Detailed cost tables can be found in Annex B.2 of the Technical Annex, Vol. II.

Table 1: Project sources of financing

		(UA '000)				(USD '000)			
Sources of financing	**Foreign**	**Local**	**Total**	**Percent**	**Foreign**	**Local**	**Total**	**Percent**
Beneficiary	-	2,083.24	2,083.24	9.3	-	2,812.37	2,812.37	9.3
ADF	15,877.37	4,424.08	20,301.44	90.7	21,434.44	5,972.51	27,406.95	90.7
Total Cost	**15,877.37**	**6,507.32**	**22,384.68**	**100.0**	**21,434.44**	**8,784.88**	**30,219.32**	**100.0**

3.5.2.2 The cost of the Program according to the categories of expenditure is presented in Table 2.

Table 2: Project cost by category of expenditures

	(USD '000)			(UA '000)			%	% Total
	Foreign	**Local**	**Total**	**Foreign**	**Local**	**Total**	**Foreign Exchange**	**Base Costs**
A. Investment Costs								
1. GOODS								
Office Furniture	27.00	3.00	30.00	20.00	2.22	22.22	90	-
Office equipment & supplies	30.51	3.39	33.90	22.60	2.51	25.11	90	-
ICT equipment	181.85	20.21	202.05	134.70	14.97	149.67	90	1
Subtotal	239.36	26.60	265.95	177.30	19.70	197.00	90	1
2. SERVICES								
a. Consultancy Services								
Consultancy Services	775.20	193.80	969.00	574.22	143.56	717.78	80	3
b. Non consulting services								
Trainings and workshop	4,070.30	1,017.57	5,087.87	3,015.04	753.76	3,768.80	80	17
Technical Assistance	7,943.72	4,735.93	12,679.65	5,884.24	3,508.10	9,392.34	63	42
Subtotal	12,014.02	5,753.51	17,767.53	8,899.28	4,261.86	13,161.13	68	59
Subtotal	12,789.22	5,947.31	18,736.53	9,473.50	4,405.41	13,878.91	68	63
3. Duties & Taxes	-	-	-	-	-	-	-	-
Total Investment Costs	13,028.58	5,973.90	19,002.48	9,650.80	4,425.11	14,075.91	69	64

B. Recurrent Costs									
1. Implementation Support									
Technical Expert	3,983.28	995.82	4,979.11	2,950.58	737.65	3,688.23	80	17
Admin Expert	685.44	171.36	856.80	507.73	126.93	634.67	80	3
Indirect	2,362.35	590.59	2,952.94	1,749.89	437.47	2,187.36	80	10
Subtotal	7,031.08	1,757.77	8,788.85	5,208.21	1,302.05	6,510.26	80	29
2. GENERAL OPERATING EXPENSES	1,139.49	932.31	2,071.80	844.06	690.60	1,534.66	55	7
3. Duties & Taxes	-	-	-	-	-	-	-	-
Total Recurrent Costs	8,170.56	2,690.08	10,860.64	6,052.27	1,992.65	8,044.92	75	36
	21,199.14	8,663.98	29,863.12	15,703.07	6,417.76	22,120.83	71	100
Physical Contingencies	-	-	-	-	-	-	-	-
Price Contingencies	235.30	120.90	356.20	174.30	89.56	263.85	66	1
Total Project Cost	**21,434.44**	**8,784.88**	**30,219.32**	**15,877.37**	**6,507.32**	**22,384.68**	**71**	**101**

3.5.2.3 Expenditure will be carried out according to schedule during the implementation period for each component (Appendix 15).

3.6 Target area and population

There are 37 ADF RMCs eligible to benefit from TAAT II. The proven technology dissemination activities of the implementing CGIAR institutions and partners will benefit participants at all levels of the value chain in low-income RMCs. The RMCs will benefit from the resources of the AEFPF and TAAT II will support its implementation.

3.7 Participatory process for programme identification, design and implementation

The formulation of the TAAT Program followed participatory and consultative processes that started with the 2015 Dakar High-Level Conference attended by senior Government officials and DPs. TAAT II complies with the participatory/public consultations that ushered in the overall TAAT program. The AUC and the RECs were consulted as part of the formulation of the TAAT II given the importance of a wider Pan-African approach and regional integration in the realisation of TAAT's overall objectives.

3.8 Key Performance Indicators

3.8.1 TAAT interventions are projected to raise the productivity of target commodities by at least 100% by 2025. The performance metrics of productivity, production, beneficiaries, agro-ecologies, and countries have been pre-determined and summarised in the Results Based Logical Framework (RBLF).

3.8.2 The overall TAAT program targeted the addition of an estimated 120 million mt of food to Africa's agricultural production and support the generation of an expected 3.15 million direct farm jobs. The RBLF will serve as the main instrument for tracking TAAT Outputs and Outcomes summarizing harmonised indicators across all organizations within the TAAT Regional Technology Delivery Infrastructure**.**

4. PROGRAMME FEASIBILITY

4.1 Economic and Financial Performance

4.1.1 The Bank's intervention will produce positive economic and financial impacts in RMCs from the priority technologies, especially given the public goods nature of the interventions.

4.1.2 The consolidated Net Present Value (NPV) of the Financial Net Benefits was USD 431.5 million with an internal rate of return (FIRR) of 27%. Using World Prices (to correct for domestic distortions, taxes, and subsidies), the NPV of net economic benefits was USD 280 million with an internal rate of return of 23%. This supports the potential economic impact of the TAAT approach. A new financial analysis will be conducted to update these 2017data.

4.2 Environmental and Social impacts, Gender, Fragility and Climate Change

4.2.1 ***Environmental and social safeguards***. TAAT II has been classified as Category 2 operation in accordance with the national legislation of the countries involved and the Bank's ISS on the basis that the program activities are expected to trigger moderate risk environmental and social impacts. TAAT II is processed as an AEFPF-supported operations as per the Board Information Note on status of operations under AEFPF (June 2022). In line with the Bank's ISS provision for short-term emergency relief operations, including AEFPF-supported operations, the Borrower will be exempted from preparing and disclosing the required E&S risk management documents prior to Board approval.

Following the approval of TAAT II by the Board, all the Environmental and Social Risk Management reports prepared by the Borrower, shall be cleared by the Bank, and publicly disclosed by the Borrower and then by Bank, prior the commencement of the project's activities. The TAAT PMU will include a qualified E&S Specialist and one focal E&S specialist for each country of implementation who shall be responsible for the implementation and the monitoring of the ESMPs. The Borrower will share quarterly E&S implementation reports and annual E&S performance reports with the Bank and stakeholders. Appendix 19.

4.2.2 ***Gender.*** This programme is categorized as GEN II in the Bank's Gender Marker System as it will close gender gaps at the outcome level with increased income of households, job creation increased agricultural productivity, and policy reforms. TAAT II is in line with the Bank's Gender Strategy (2021-2025) on increasing women's access to productive resources and skills, which is also aligned with gender mainstreaming actions for the Bank's Africa Emergency Food Production Facility. A Gender specialist will support gender mainstreaming activities in TAAT II and will guide the development of a harmonised gender strategy. A gender analysis and action plan have been developed.

4.2.3 ***Fragility***. TAAT is aligned with the Bank's new strategy to address fragility and building more resilient institutions, economies, and societies in all its Regional Member Countries (with a focus on three key priorities) notably strengthening institutional capacity, building resilience by investing in infrastructure and public services, and creating the conditions for private investment and job creation (Appendix 16).

4.2.4 ***Climate change***. The Project is classified under Category 2 of the Bank's Climate Safeguards System (CSS). Moreover, the project aims at increase agricultural production through technological transformation, which evidently will contribute to climate change adaptation and resilience. TAAT II will strengthen resilience (including climate change, green and inclusive growth), value addition and trade and deployment of Appropriate Climate-Resident Agricultural Technologies (DAT) as contained in Component 3 of the Programme.

5. IMPLEMENTATION AND LEGAL DOCUMENTS

5.1 Implementation Arrangements

5.1.1 IITA is retained as the Executing Agency for TAAT II as it was for TAAT I. The Project Management Unit (PMU), to be in Benin, will be responsible for the overall co-ordination and effective implementation of the project. The implementation arrangements of TAAT II are like those established in TAAT I and the structure set out in the TAAT Programme Framework will remain intact under TAAT II. However, the roles, responsibilities, governing principles and organisational focus of the various RTDI may be slightly revised (Appendix 12).

5.1.2 At the core of the RTDI are the Commodity Technology Delivery Compacts (CTDCs) or "Compacts"; an alliance of RMCs, represented by CGIAR centres, NARES, government agencies, development partners and a suite of actors ranging from seed companies and social enterprises to farmer organisations and extension agencies, etc. The institutions leading TAAT Compacts will sign an Implementation Agreement and Contract with IITA, with clear deliverables against payment.

5.1.3 Other key elements of the RTDI are the TAAT Clearinghouse and the Programme Steering Committee (PSC) with revised ToRs (Appendix 7).

5.1.4 The centrally managed activities planned in TAAT I were funded with RPG resources as they did not have revenue generating capacity. TAAT II simply builds on the same Programme Framework and the same cost-sharing principle granted to TAAT I (see Appendix 6).

5.2 Private Sector Participation

TAAT is developing a unique approach to working with the private sector by creating a platform to support private sector and social enterprise partners seeking to scale access to inputs and output markets, and financial services for farmers in a programme for scaling up existing initiatives.

5.3 Fiduciary Compliance and Governance

5.3.1 Procurement Arrangement: Procurement of all contracts for good and related services and consulting services to be financed by the grant under the programme will be carried out using the Bank's Procurement Methods and Procedures (PMPs) in line with the Bank's Procurement Framework of October 2015, using the Bank's Standard Solicitation Documents (SSDs) and provision of the grant agreement.

5.3.2 Procurement Risk and Capacity Assessment (PRCA): Assessment of procurement capacity and procurement risks for the project was undertaken for the project to identify challenges that will affect project procurement implementation by the EA. Based on the assessment, it was noted that the Procurement risk rating is moderate. However, there are capacity challenges at the EA level in terms of expertise and staff complement to provide adequate coordination and procurement support across nine commodities and six enabler compacts led by 11 CGIAR Centres located in 37 low-income and ADF countries in Africa. IITA being the Executing Agency of the grant will constitute a Project Management Unit that will handle all procurements to be financed by the grant. Given the nature of project implementation across compacts and to mitigate procurement risks, the PMU should recruit a reasonable number of suitably qualified and experienced Procurement Officers to support procurement operations across the different compacts. The PMU will prepare a procurement plan for the project detailing procurement activities, estimated budgets, procurement methods and the oversight responsibility (prior and post reviews). and share it with the Bank for review. This tentative procurement plan will be incorporated into the PAR Technical Annex B5.

5.3.3 Institutions Support to the PMU: For smooth implementation of procurement activities across all compacts or institution under the project, Compact Managers and/or their Technical Officers will support the PMU in preparation of statements of requirements/technical specifications and Terms of References for activities that they will implement. Likewise, they will also participate in evaluation of bids for goods and related services and proposals for consulting services for their respective compact activities. It is recognized that some Centres of excellence or CGIAR's Institutions need to work with some institutional private partners to meet the objective set for the compact under their responsibility. For that purpose, it is expected that the cost of these sub-services required for these partners may in

some cases be included in the implementation support costs to be charged by each specific CGIAR's Institutions to the Project Managing Unit. To ensure value for money, it has been agreed that identification of these partners be done by CGIAR's institutions on a competitive basis unless it is determined that they are unique providers for the expected services. The mechanism for call of partners needed and the selection process will be incorporated in the Project Implementation Manual (PIM).

5.3.3 Financial Management (FM) Arrangements

5.3.3.1 As part of the appraisal for TAAT II, FM assessments of the IITA and the beneficiary Implementing Agencies concluded that the financial management arrangements for the programme meet the Bank's minimum requirements and are adequate to provide reasonable assurance of accurate recording and timely submission of information required by the Bank. The overall risk rating for the TAAT II programme is "Substantial" because the activities are largely decentralized throughout Africa with a significant number of partners and beneficiaries who have not previously implemented a Bank financed project. IITA, through the PMU, will take the overall responsibility for the programme's financial management.

5.3.3.2 The FM capacity assessments indicated the need to enhance the capacity of the PMU (Section B.1 of the technical annexes that further describes the arrangements that will govern the financial management of the programme, while Section B.2 sets out an FM Action Plan to operationalise agreed mitigating measures along with set timelines to be included within the Protocol of Agreement as time bound covenants).

5.3.3.3 Quarterly consolidated interim unaudited financial reports will be produced by the PMU and transmitted to Bank within 45 days after the end of a reporting quarter. The PMU will also produce consolidated financial statements, including the transactions of all implementing agencies and submit them to the external auditors. All audits of the programme shall comply with the Bank's requirements and terms of reference for Bank funded projects, as well as any other relevant accounting and reporting standards as may be agreed among the beneficiary agencies.

5.3.4 Disbursement Arrangements

All four disbursement methods will be available for use by the Programme: Direct Payment, Special Account, Reimbursement and Reimbursement Guarantee. Disbursements will be done in accordance with the Bank's rules and procedures as laid out in the Disbursement Handbook. A USD Special Account and related local currency accounts will be opened in a commercial bank acceptable to the Bank for IITA and each of the implementing agencies to allow flexible project implementation and facilitate payments for all project expenditure categories except the IS category. Disbursement related to the IS category will be done in line with agreed triggers/deliverables. Disbursement to IITA and the implementing agencies will be based on approved work programme, deliverables and budget. The Bank will issue a Disbursement Letter whose content will be discussed and agreed during negotiations.

5.3.5 Monitoring, Evaluation and Learning Arrangements

5.3.5.1 TAAT II commodities performance indicators are outlined in the Results Based Logical Framework (RBLF) at three levels: Impact, Outcome and Output. In general, they include:

- *Impact indicators* relating to food security and under-5 stunting.
- *Outcome indicators* - household income, agricultural productivity, job creation, volume and value of additional agricultural commodities.
- *Output indicators* include technology policies harmonised across regions/countries.
- *S*ee the RBLF for a comprehensive list of indicators.

5.3.5.2 As part of the Bank's increased commitment to Monitoring, Evaluation and Learning (MEL) in TAAT II, the Bank will allocate more resources to ensure validated and effective reporting that clearly captures the KPIs summarised in the RBLF and distinguishes direct attribution to TAAT as well as its catalytic impacts. In addition to increasing the MEL capacity at the TAAT PMU, additional resources to the compacts implies their being responsible for reporting at their level.

5.3.5.3 The TAAT PMU and CH will support the customisation of the digital M&E system Measure for Great Impact in Agriculture for Development (MPRO) Platform. The MPRO Platform provides a comprehensive visualization of how TAAT activities have met key performance indicators and targets across the Compact and at the global programme level. The MPRO Platform offers automated dashboards that will be accessible and useful for quick and clear analysis.

5.3.5.4 All TAAT Compacts will be required to allocate resources for data collection, analysis, and reporting as part of the MEL. An inception report will be prepared by the implementing agencies (IAs), including baseline status, detailed work plans and budgets, as well as communication and technology deployment plans. Please refer to Appendix 17 for the program's theory of change (ToC). Also refer to Annex C7 for the program's monitoring arrangements.

5.3.6 Governance

The implementation of TAAT II requires good governance at all levels from Central to Provincial and District levels in the RMCs; the institutional arrangement has been designed to ensure this outcome.

5.3.7 Sustainability

5.3.7.1 The sustainability of TAAT rests on: i) stronger links between research and extension; ii) stronger links of farmers to markets; iii) the integration of TAAT technologies into country programs at the formulation stage while TAAT compacts catalyse technology dissemination; iv) supportive policy and regulatory environments; and v) the uptake of marketable TAAT technologies by the private sector facilitated by the Clearinghouse through direct engagement with key private companies; vii)on-going discussions on embedding TAAT into the One CGIAR with the common goal of bringing agricultural technologies to scale which represents an opportunity for sustainability of TAAT.

5.3.7.2 TAAT will contribute to increased country investments in agricultural projects and assure its impact across the continent and on the welfare of its populations

5.3.8 Potential Risks and Mitigation Measures

Agricultural technologies can exacerbate already existing gender inequalities in African agriculture but, if deployed thoughtfully, they also have the potential to bridge the gender gap. Even as TAAT delivers powerful and proven agricultural technologies off the shelves and into the hands of farmers, implementing partners must pay particular attention to the gender impact of these technologies. The Risk mitigation table is detailed in Appendix 18

5.3.9 Knowledge Building

Knowledge will be built on the experience of the Executing Agency and the other units of the CGIAR system that are implementing entities working with RMCs; the role of value chain actors including farmers and farmers' organizations, women, youth, private sector, commercial and public sector delivering institutions will also be important. Knowledge will be captured using analysis of M&E database, supervision mission reports, mid-term reports, a periodic outcome and impact assessment reports, as well as innovation platform reports, field exchange visits and lessons from programme implementation and

process evaluation reports. Knowledge would also be distributed through Bank communication systems and those of the IITA, Implementing Agencies and respective Governments.

6. LEGAL INSTRUMENTS AND AUTHORITY

6.1 Legal instrument

The legal instrument for the Fund's financing of TAAT II will be a Protocol of Agreement with IITA as the Recipient/Executing Agency. IITA will retain financing for centralized activities, and on-grant relevant financing to organizations that lead different Compacts, as well as other partners that are identified to offer agreed services. The conditions associated with the fund's intervention such as conditions precedent to entry to force and undertakings are in Appendix 19

6.2 Compliance with Bank Policies

This Project complies with applicable Bank Group policies.

7. RECOMMENDATIONS

Management recommends that the Board of Directors approve:

(i) Phase II of the TAAT framework to be implemented as described in this proposal, as decided by the Boards in Resolution B/Z1/2017/71 – F/Z1/2017/92 dated 28th November 2017; and

(ii) Award of a grant of twenty million and three hundred thousand Units of Account (UA 20.30 million) from the ADF-15 Regional Public Goods envelope, to IITA, to finance implementation of TAAT II activities in ADF only countries, under the terms and conditions stipulated in this report.

APPENDICES

Appendix 1: Operational footprint of TAAT I Compacts.

	Maize	Cassava	Rice	Beans	OFSP	Fish	Wheat	Sorg-Mil	Livestock	FAW	Youth	Water	Soil fertility	Capacity	Policy
Benin	■	■	■			■							■		
Burkina Faso			■		■			■		■		■	■		■
Burundi		■		■		■									
Cameroon	■	■	■		■	■			■						
Chad								■							
Congo, DRC		■		■	■	■					■			■	■
Cote d'Ivoire			■			■									
Ethiopia	■						■		■			■			■
Gambia															
Ghana	■	■	■		■	■							■	■	■
Guinea Bissau															
Guinea C'kry			■												
Kenya	■			■	■		■			■	■			■	■
Liberia		■													
Madagascar			■		■										■
Malawi	■	■		■	■									■	■
Mali			■				■	■	■			■	■	■	■
Mauritania															
Mozambique	■	■			■				■						■
Niger								■							
Nigeria	■	■	■		■	■	■	■	■	■	■	■	■	■	■
Rwanda	■	■		■	■									■	■
Senegal			■					■						■	■
Sierra Leone		■	■												
South Africa	■														
Sudan							■	■				■			
Tanzania		■		■	■	■	■				■		■	■	■
Togo		■													
Uganda	■	■	■	■	■					■	■				■
Zambia		■				■			■	■	■			■	■
Zimbabwe				■			■								

Appendix 2: Impact Brief of Selected TAAT Compacts

Maize Compact

Developing the private sector along the maize value chain

The maize compact, led by the African Agriculture Technology Foundation (AATF), has involved 30 seed companies producing 27,000 MT of seeds of drought tolerant maize varieties for use by 2.6 million maize farmers. The Maize Compact introduced climate-smart maize varieties in Kenya with yield potential of 3-5 MT/Ha under moderate drought and 7-12 MT/Ha under optimum rainfall conditions. The AATF uses and licenses proprietary technologies to farmers.

The newly deployed climate smart maize varieties complemented with GAPs resulted in significant productivity improvement in intervention sites. For example, in Western Kenya a 50% maize yield increase was achieved by farmers who used climate smart seeds. The farmers achieved an average of 2.25t/ha compared to 1.5t/ha when using their old varieties. The increased productivity also increased the gross income by 65% to USD495/ha. 8,185 MT of certified seed of elite climate-smart maize varieties that are drought-tolerant and high yielding (Drought TEGO and DTMA) were produced in Kenya through collaboration with the seed sector.

The Maize Compact also facilitated linkages between farmers and inputs and output markets for provision of fertilizers and crop chemicals. Linkages with agro-processors, grain off-takers and millers, such as Food Chain Millers of Kenya, helped maize farmers to have ready market for their grain and fair prices. The value addition by agro-processors resulted in processed goods such as maize flour and stockfeed. Striving to strengthen its RTDI, the TAAT Maize Compact entered into contractual partnership with maize off-takers in Kenya (Food Chain Millers) to create demand for certified maize seed to produce grains. Adopting its innovative approach of aggregating farmers into groups, through this initiative the FCM have maintained a pool of over 2,400 smallholder farmers who supply maize grain annually. With formal contractual agreements with the farmers, the FCM was able to purchase about 4,320MT of grains in 2019, processed 3,600MT and 720MT of maize flour and animal feed, respectively. Through this partnership farmers are incentivized to adopt climate smart maize hybrids in (DroughtTEGO® (WE1101)) in surety of grain markets.

Milling technician at Food Chain Millers' processing site in Nakuru, Kenya

Wheat Compact

Transformative pathways of the Sudan Wheat sector

Following the successful implementation of the 2018/19 planned TAAT wheat seed activities in Sudan, the private and public seed enterprises (such as NileSun Enterprise, Arab Sudanese Seed Company (ASSCO), Makeen Seed Company, Social Security Investment Authority, Authority of Merowi Dam Area for Agricultural Development, New Halfa Agric Corporation, Rajhi Investment Co.) have grown over 850 tons of basic seed of five popular wheat varieties (Imam, Goumria, Zakia, Elnielain and Bohaine) on more than 8500 ha in five wheat growing regions of the country. As a result, more than 26,000 tons of certified seed produced that can be distributed to more than 260,000 wheat farmers in the following season. In addition, 105 tons of pre-basic seed of the most recently released heat tolerant wheat varieties have been cultivated on 1,050 ha involving the Agricultural Research Corporation (ARC, Sudan) and three seed enterprises (Makeen Seed Company, NileSun Enterprise, New Halfa Agric Corporation). A total of 3,665 tons of basic seed produced at the end of the season (Table 2). This in turn, could be grown on more than 36,665 ha in 2019/20 to produce well above 109,995 tons of certified seed, which is enough to cultivate wheat area exceeding 1.1 million ha in 2020/21. This implies that according to the seed road map (2018-2025) and target set for the country, Sudan meets 100% of its certified seed requirement for 2020/21 season and will have a surplus of over 75,000 tons of certified seed that can available for wheat producing African countries of similar agro-ecology, including Nigeria, Mali, Niger, Mauritania and Ethiopian lowlands.

In this regard, a strategic initiative taken by the Wheat Compact in partnership with the Nigerian private sector for importing 40 MT of foundation/basic seed of IMAM variety from Sudan to Nigeria was a game changer in terms of transforming the landscape of the on-going wheat production in the country for the following reasons: 1) IMAM is the most popular and widely-adapted high yielding heat tolerant wheat variety recently registered in Nigeria with the production potential of 5-7 t/ha on farmer fields; 2) the multiplication of the 40 MT of foundation seed on 400 ha this season will produce 2,000 tons of certified seed at the end of the season. That means, during the 2020/21 season, more than 20,000 Nigerian smallholder wheat farmers can benefit from the certified seed of IMAM variety, and hence farmers will dramatically increase their wheat productivity from the current abysmally low level of 2 t/ha to 5-6 t/ha. Therefore, this strategic initiative will significantly address the existing critical shortage of improved wheat seed by enhancing access of high-quality seed to more than 20,000 smallholder wheat farmers next year; and 3) the impact of this intervention is estimated to boost the overall domestic wheat production in Nigeria to reach 3,200,000 MT by 2023, accounting for 71% wheat import substitution.

Capacity of the seed sector stakeholders strengthened through providing skill upgrading hands-on training on quality seed production and management for 48 (32% women) seed technicians drawn from 7 seed enterprises and ARC, Sudan. Similarly, the TAAT wheat team trained and empowered 70 (38% women) pioneer farmers and 50 youth (45% women) members engaged in community-based seed production through practical training on quality seed production and direct field backstopping at different stages of the crop development.

Across the 6 project established IP sites in Sudan, the proven heat tolerant wheat varieties with associated management packages have been widely scaled up and promoted with active participation of 14, 750 farmers and stakeholders (33% women). As a result, technology adopting wheat farmers have significantly increased their yields 4-6 t/ha, compared to the traditional varieties which rarely exceed 2.0 t/ha. During the field day events organized for stakeholders, the impressive performance of high-yielding, heat-tolerant wheat varieties has convinced policy makers that a viable solution to their country's growing dependence on wheat imports is domestic production – a policy shift that will protect the country from the vagaries of global commodity.

Thanks to the new cultivars such as Imam, Zakia and Bohain, Sudan's wheat-growing area in 2018/19 saw a sharp rise to around 294,000 ha, up from 201,000 ha in 2017/18. The high productivity and wheat area expansion witnessed during this season led to a record high production of around 0.9 million tons of wheat, up from 0.54 million tons in 2017/18, covering 45% of the national demand.

Wheat seed field in Gezira, Sudan

Sudan is optimistically referred to as an "awakening giant", and its vast plains are seen by development experts as a potential "bread-basket" to feed Africa. With its huge land mass and **irrigation potential**, Sudan has the opportunity and comparative advantage to develop more than 1 million ha additional land that can be devoted to irrigated wheat production in Gezira, River Nile, New Halfa, White Nile, Blue Nile and Northern Regional States. Hence, with the right policy and adequate investment in irrigation, infrastructure and facilities, Sudan is strategically placed to feed Africa.

Rice Compact

Improving post-harvest technology handling: The impact of GEM parboiling technologies

The TAAT Rice Compact (TRC) seeks to achieve rapid intensification of rice production through raising farm-level productivity, improving the efficiency of processing and increasing market opportunity. Proven technologies include new genetic materials, quality breeder seeds, crop management and processing practices and business development models. This entails working with the value chain actors from both the private and the public sector, using the Innovation Platform (IP) approach to foster linkages for quick uptake of technologies. Each of these actors play complementary role that ensure that the value chain functions from research through production to processing and marketing. The Compact also linked the private seed company with a network of out growers to ensure that a regional seed delivery mechanism is operational. This is the aim of continuing and sustaining the multiplication pf breeder seeds into foundation seeds and certified seeds for supply to farmers, mostly smallholder farmers.

The Rice Compact introduced climate-smart rice varieties that yields 4-7 MT/Ha and hybrids that have the potential of 10 MT/Ha in 12 countries. Over 60 MT of breeder seed of improved climate-smart rice varieties (NERICA 4, ORYLUX 6, NERICA L19, WAB 638-1, Sahel, etc.) was produced at the AfricaRice station at M'be, Bouake in Côte d'Ivoire), Africa the Sahel station at Saint Louis (Senegal), the National Agricultural Research Organisation (NARO) in Uganda and the Council for Scientific and Industrial Research - Crops Research Institute (CSIR-CRI) in Ghana.

By adopting improved rice varieties, RiceAdvice and Good Agricultural Practices (GAP) for crop management rice yields in Madagascar, increased from 3.3 MT/Ha in the uplands to 7.5 MT/Ha and in lowland from 5.8 MT/ha to more than 10 MT/ha in Cote d'Ivoire and Togo. The pilot phase of hybrid varieties testing has produced 3.5 MT of high-quality hybrid rice, with yields ranging from 5.8 MT/Ha to more than 10 MT/Ha under farmer conditions, farmers and seed entrepreneurs in other countries expressed interest in the hybrids. E-registration has been successfully rolled out. Over 7,977 rice value chain actors including farmers were registered in two rice hubs (Bandama Valley and Gagnoa regions) in Côte d'Ivoire, with 11.27% female. Majority of the rice producers cultivate on rainfed lowland (70.51%) and they grow WITA, BOUAKE and GT11 rice varieties.

The use of GEM rice parboiling system by the IP in Nigeria generated US$ 181,800 in 2019, from selling 218.15 MT of quality domestic parboiled rice. This has resulted in substantial substitution of firewood with rice husk for fuel fire as primary energy resulting in US$ 30 savings per MT of parboiled rice. The Rice IP in Nasarawa state in Nigeria was leased a rice mill at 80,000 Naira ($223) per month for 3 years by the Nasarawa State Government, through a competitive bid. The IP itself floated shares of 500,000 naira ($1,389) each and raised 5 million naira from among its members. Within a month, the IP generated over 19.7 million naira ($53,968.31) through service provision and sale of quality domestic parboiled rice.

In Cote d'Ivoire, 2,255MT of paddy was processed by the IPs using GEM parboiling system. This resulted in 1,600MT of parboiled milled rice. Currently, about 27,500 actors – rice producers, parboilers, marketers and consumers, benefited in 8 sites in Glazoue, Malanville (both in Benin), Bouake, Daoukro, Gagnoa and Man (Cote d'Ivoire), Nasarawa (Nigeria), and Tara (Niger). There was a reduction or complete substitution of firewood by rice husk as fuel for GEM parboiling system, resulting in about $38,300 savings in the cost of wood across the IP sites. A total of 68,300 actors (paddy suppliers, parboiling service providers, parboiled rice marketers and parboiled rice consumers) have benefited from rice parboiling activity.

Women Processor Group in Bouake, Cote d'Ivoire

In addition to the Emergency response Call to Covid-19, the Compact is working towards responding to AY funding spearheaded by the Clearinghouse. It is expected that 3,000 MT of foundation seeds and 150,000 certified seeds would be produced by the end of 2021 to enable 3.6 million farmers cultivate 1.8 Million ha of paddy and produce 3.96 Million MT of grain rice by the end of 2022 for their food security.

High Iron Beans Compact

Creating an enabling environment by engaging government as primary scaling partners

This Compact is directed by International Center for Tropical Agriculture (CIAT) and operates in eight countries of Central, East and Southern Africa. It focuses on the distribution and use of improved High Iron Bean varieties (32 biofortified) that may also be high in zinc to improve immune functions and iron to reduce anaemia in women and children, therefore improving cognitive and physical development in children under 5.

The HIB Compact operates through 10 partnerships that reached 1,150,929 beneficiaries. A collaboration between the HIB compact and the Pan-African Bean Research Alliance (PABRA) reached over 623,000 farmers with 4,700 MT of certified seeds of various HIB varieties. To date, 5,006 MT of seed, both bush and climbing types, were disseminated through public-private partnerships and community-based actions. A suite of improved agricultural practices accompanies these varieties that increase yields from 0.8 MT to 1.25 MT per ha for bush types, and even more for climbers. Many of its beneficiaries estimated at 964,000 are primarily engaged in value-adding pursuits, including the production of pre-cooked beans and the milling of bean flour.

Policy Makers engagement in HIB Work in Kenya, Uganda and Tanzania

Appendix 3: Agricultural value chain projects benefitting from TAAT

Eleven approved TAAT Country Programmes (CP) worth UA 335.72 million with $245.07 of co-financing have been approved (2017-2018)

Country	Project Title	Amount (UA M)	Source	Co-Financing in (USD Million)	Date Approved
Uganda	Agricultural Value Chain Development (AVCD) Project	57.00	ADF Loan	N/A	11 December 2017
Angola	Cabinda Province Agriculture Value Chain Development Project	71.41	ADB Public	N/A	15 December 2017
Ghana	Savannah Agricultural Project Productivity Increase (SAPIP)	27.86	ADF Loan	N/A	15 December 2017
Sudan	Agric. Value Chain Development Project	28.95	TSF/ADF	FAPA: 0.96 million	6 June 2018
Senegal	Project to Open Up Production Areas in Support of the National Local Development Programme (PDZP/PNDL)	20.00	ADF	OFID: 19.20 million	22 June 2018
Mozambique	Agricultural Value Chain and Youth Empowerment Project (AVACYEP)	11.00	ADF Grant	N/A	20 July 2018
Cameroon	Livestock and Fish Farming Value Chains Development Project (PD-CVEP)	70.00	ADB Loan	N/A	12 September 2018
CAR	Savannah-Based Agricultural Value Chains Development Support Project (PADECAS)	7.00	TSF/ADF Grant	IFAD: 17.77 million	22 October 2018
Malawi	Shire Valley Transformation Program I	24.50	NTF/ADF Loan	OFID: 15.00 million WB: 160.00 million GEF: 5.59 million	04 December 2018
Gambia	Rice Value Chain Transformation Programme (RVCP)	5.00	ADF/TSF Grant	IsDB: 16.55 million BADEA: 10.00 million	6 December 2018
Mauritania	Agricultural Transformation Support Project (PATAM)	13.00	ADF/NTF Loan	N/A	12 December 2018
	Total	**335,72**		**245, 07**	

Ten approved TAAT Country and regional Programmes (CP) worth USD 899.7 million (2019-2022)

Countries	Project Title	Amount (USD Million)	Source	Co-Financing in (USD Million)	Date approved
Djibouti, Kenya, Somalia, and South Sudan	Programme to Build Resilience for Food and Nutrition Security in the Horn of Africa (BREFONS)	139.6	ADF Loan/ ADF Grant/ TSF Pillar 1	FAO: 0.672 Governments: 14.92 Beneficiaries: 1.77	November 2021
DR Congo	Ngandajika Agro-Industrial Development Support Programme (PRODAN)	70	ADF Loan	Government: 22.2	November 2021
CAR	Savannah-Based Agricultural Value Chains Development Support Project (PADECAS)	11.6	TSF/ADF Grant	IFAD: 17.9 Government: 1.4	October 2018
Benin, Burkina Faso, Cameroon, Ivory Coast, Guinea, Mali, Niger, Nigeria, and Chad	Programme intégré de développement et d'adaptation au changement climatique dans le bassin du Niger (PIDACC)	68.8	ADF Loan	FVC: 94.92 FSC: 12.6 GEF: 16.81 UE-FIAF-PAGODA:20.44 Governments: 20.3	October 2018
Angola	Cabinda Province Agricultural Value Chains Development Project (CPAVCDP)*	101.07	ADF	Government: 19.91 Beneficiaries: 2.17	November 2017
Gabon	Project d'Appui au Programme Graine Phase 1 (PAPG1)	104.15	ADF	Government: 18.43	November 2017
DRC	Project to Support the Development of Agricultural Value Chains in Six Provinces in DRC (PADCA-6P)	30.2	ADF	NA	Mai 2019
DRC	Integrated Rural Economic Development Support Project (PROADER)	58.92	ADF Loan	Government: 9.58 Beneficiaries: 0.79	August 2019

South Sudan	Agricultural Markets, Value Addition and Trade Development Project (AMVAT)	14.1	ADF loan/TSF Pillar 1	FAO: 0.28 GoSS: 0.83	November 2020
Ethiopia	Multi-Sectoral Approach for Stunting Reduction Project (MASREP)	31.02	ADF	Government: 16.05 Beneficiaries: 1.11	April 2021
	Total	**624.86**		**273.78**	

Appendix 5: Programme Component and Impact Pathway Narrative

The four programme components of TAAT are: 1) Creating an enabling policy and regulatory environment, 2) Regional Technology Delivery Infrastructure, 3) Deployment of appropriate agricultural technologies, and 4) Project management and co-ordination. Below the four components of TAAT are described in more detail, with the key activities of each component highlighted and the envisioned pathway from outputs to expected outcomes explained.

Creating Enabling Policy and Regulatory Environment: A critical bottleneck to rapid and effective deployment of agricultural technologies is the incomplete, fragmented and country-specific approach to policy formulation in the agricultural sector. As agro-ecological zones transcend national borders, there are substantial benefits to a harmonized regional approach to technology dissemination in agriculture. Regionally co-ordinated policies and processes for testing, certifying, disseminating and regulating seed, pesticide, herbicide, fertilizer and other critical inputs would drastically increase access and availability to farmers. They would also reduce one of the main barriers of investment for multinational, regional, and national agro-corporates and SMEs in the agricultural sector.

This component takes a regional approach to addressing policy bottlenecks that inhibit efficient agricultural technology adoption at national and regional levels. TAAT II will continue working closely with the governments and regional economic communities securing commitments of policy reform and investing in streamlining them at national and regional scale with further investment to ensure effective enforcement. This will require supporting national campaigns to explain and promote the identified policies and drive wide scale technology adoption. The component will also support the policies and programmes that enhance access to finance and complementary services by smallholder farmers as well as catalysing public and private investments in small and medium enterprises across agricultural commodity value chains. TAAT related expertise around an enabling agricultural policy environment would be deployed to support the design of country agricultural development programmes with sound policy and regulatory principles.

Regional Technology Delivery Infrastructure (RTDI): The TAAT RTDI is the backbone of the TAAT Programme, marshalling strategic partnerships and stakeholders to identify, manage and deploy the technologies, resources and programmes required to meet TAAT objectives. The RTDI co-ordinates the development and delivery of best-bet agricultural production technologies. The TAAT RTDI leverages the tremendous store of agricultural technologies and related expertise vested in the Consultative Group of International Agricultural Research Institutes (CGIAR). CGIAR centres have both considerable infrastructure across the continent and close working relationships with country National Agricultural Research and Extension Systems (NARES), vital to customizing and deploying agricultural inputs developed within the CGIAR. TAAT builds on the agricultural assets and reach of CGIAR and NARES by co-ordinating and supporting their integration into value chains and helping them remove identified barriers to deploying technologies at scale.

The institutions of the TAAT RTDI are identified to support specific commodities value chains or to offer cross-cutting enabling services required to deliver targeted agricultural technologies and value chain services to farmers at scale. The TAAT RTDI is thus made of a range of Commodity Compacts that produce and are making available a technology package of the ecosystem-customized high yielding seed varieties, crop protection options, and fertilizers necessary to meet TAATs objectives of doubling food production and closing the yield gap. To ensure these technologies are accessible to smallholder farmers and other producers at scale, the TAAT RTDI brings together consortia of specialized expertise into Enabling Compacts to help build the sustainable and efficient delivery infrastructure for agricultural inputs and outputs fundamental to a productive agricultural industry.

The Enabling Compacts will ensure the development of a conducive policy environment, while building capacity across the supply chain to ensure the relevant agricultural technologies reach

farmers efficiently and consistently and are available to ensure effective aggregation and offtake of produce at a profitable margin. To ensure long-term sustainability, the compacts will also support small and medium size agribusiness enterprises and ensure they are integrated within the technology delivery infrastructure. Equally, as TAAT seeks to ensure food and nutrition security and increase rural incomes, the compacts will prioritize proactive engagement of youth and women in the agricultural commodity value chains.

Deployment of Appropriate Agricultural Technologies (DAT): Where the TAAT RTDI is the delivery backbone of TAAT, the component on deploying appropriate agricultural technologies is meat of the TAAT programme. DAT serves as the missing middle, facilitating the necessary link between agricultural technologies, the farmer, markets and the consumer. The TAAT DAT component ensures that agricultural technologies are available in sufficient quantity and quality focusing investment on seed system development and the provision of cost-effective fertilizers and crop protection technologies customized to agro-ecological specificities. The TAAT DAT is responsible for ensuring the value of agricultural technologies is known to farmers and that they have the necessary supporting services – access to credit, production insurance, input subsidies, etc., - to generate sustainable demand and realize improved incomes. As such, the TAAT DAT will also be supporting targeted extension campaigns to improve farmer and agripreneur knowledge and arm them with the information they need to make informed decisions and signal the need for quality service provision tailored to their needs.

Through its Supply Chain Development Enabler, TAAT II is increasing its investments to support the widespread development of agro-dealer networks. The largescale deployment of appropriate seeds and input systems must be supported by an efficient supply chain guaranteeing easy access for millions of farmers. TAAT recognizes that private sector involvement is critical for driving scale and ensuring sustainability and the DAT component defines TAAT's support to catalyzing private sector involvement across the agricultural value chain. Along with agro-dealer networks, the TAAT DAT, will support a broad group of SMEs and build agripreneur capacity across the agricultural value chain. The TAAT DAT will also support processes to overlay agricultural supply chains with digital architecture that provides real-time end to end visibility of the supply chain, ensures effective service delivery to the last mile, connects farmers through e-registration and the provision of e-wallets for digital payments, disbursements and the efficient provision of target subsidies.

Programme management and co-ordination. The TAAT programme is ambitious and comprehensive with activities covering multiple commodity value chains and operating across a multitude of countries across the Continent. A programme of this nature requires a highly experienced and capable programme management and co-ordination structure. The TAAT Programme Management Unit and the TAAT Clearinghouse, have already developed a strong foundation for executing the programme management and co-ordinating functions of TAAT. In addition to identifying the best-bet agricultural technologies and partnerships to execute on the component elements of TAAT, a key function of this component is to guarantee effective fund management and fiduciary compliance, track and report on progress vis-à-vis the results based logical framework, and manage programme components. TAAT goes further, ensuring increased capabilities in programme management and co-ordination, investing more in Monitoring & Evaluation, ensuring tighter fiduciary compliance, and increasing co-ordination across TAAT Compacts, Country Programmes, and related Feed Africa partners.

Appendix 6: Justification of Resource Distribution by Category of Expenditure

The proposed distribution of TAAT II Grant resources across expenditure categories as described in Table 5 of the PAR varies from the typical allocation of expenditure in Bank financed projects and requires further justification. In particular, to cater to the unique structure and contributions of the CGIAR – the key source of agricultural technology and expertise central to TAAT – the category "Implementation Support" incorporates the full suite of expertise and capabilities that these centers of excellence bring to the project. They include both the technical and administrative capacities that TAAT taps into, as well as legitimate indirect costs for the use of CGIAR assets and infrastructure that are exploited. We explain and justify these costs in the TAAT context below.

The TAAT Programme, which has been classified as a priority flagship of the Bank's Feed Africa strategy is also recognized as representing a novel partnership arrangement involving institutions and management structures that are different from regular Bank financed projects. Relevant Bank operational policies allow for structuring of Programmes such as TAAT, and offer guidelines on payment of implementation expenses in those circumstances. In this case, we refer to the *Policy on Expenditures Eligible for Bank Group Financing* and the *Agreement Establishing the African Development Fund*.

The strength of the justification lies in understanding both the operating framework and the value addition of TAAT's most significant contributing partner - the CGIAR centers, the world's largest global agricultural innovation network. TAAT's underlying philosophy - that many of the technologies required to accelerate Africa's agricultural transformation exist and simply need to be harnessed and sustainably scaled through a systematic co-ordinating process – demands tapping into the agricultural technologies that have been developed by the CGIAR and its network of research and development partners. It is fundamental to note that CGIAR agricultural innovations are classified as global public goods and are thus freely accessed by the TAAT delivery infrastructure. This is tremendous value-addition that the CGIAR institutes bring to the TAAT programme (For more information on the CGIAR's contributions and capabilities see **Appendix 10**: CGIAR Transforming the Global Food System, or visit www.cgiar.org).

While the CGIAR implementing partners provide open access to the innovations and technologies, CGIAR centers do not directly receive any unrestricted funding and are non-revenue generating institutions. They rely on restricted resources to fund their operations. To ensure that received donor resources are effectively managed, all CGIAR Centers follow internationally recognized financial management and procurement principles ensuring the most advantageous combination of cost, quality and sustainability.

With respect to personnel, specific expertise that is required in regular Bank funded projects is often provided as consulting services - which the Bank pays for from the proceeds of Grants. The expertise that is required under the TAAT programme is vested in regular CGIAR center staff who can allocate their time as required for implementation of TAAT. These staff are hired competitively through international or national markets depending on the job class. All CGIAR centers have scientific and technical personnel from a wide range of backgrounds and a suite of staff providing support services across financial, procurement, communications, monitoring and evaluation, and related fields. Staff resources are fully or partially allocated to specific programmes commensurate with their contributions.

Accordingly, management recommends payment of expertise arising from the TAAT specific workload and staff time, which in most cases would be more cost-effective and efficient, and bring greater capacity to the TAAT Programme than the hiring of Project consultancy services. Implementing agencies will identify technical and administrative services directly linked to the activities they are contracted to deliver subject to the budget envelope available to personnel and with appropriate staff time recording processes. Expenditure on CGIAR personnel will therefore be limited to their contribution to the programme. For the same reason, management also recommends using Grant resources to pay CGIAR indirect costs. The exact rate of indirect costs

allowable will be determined through negotiation process, and be specified in the Protocol of Agreement, and related Implementation Agreements.

The guiding principles for use of ADF resources are set out in **Chapter V of the ADF Agreement**. The primary consideration is the development impact of a proposed operation/transaction. Costs associated with implementation are addressed by the provisions of **Article 15 (5), (6) and (7)** reproduced below, for ease of reference:

"5. The Fund shall make arrangements to ensure that the proceeds of any financing are used only for the purposes for which the financing was provided, with due attention to considerations of economy, efficiency and competitive international trade and without regard to political or other non-economic influences or considerations.

6. Funds to be provided under any financing operations shall be made available to the recipient only to meet expenses in connection with the project as they are actually incurred.

7. The Fund shall be guided by sound development banking principles in its operations."

Therefore, in principle, the Agreement establishing the ADF allows the Fund to pay project specific indirect costs and personnel expenses due to increased workload of regular employees of Project Executing/Implementing Agencies who have to attend to project implementation activities, subject to demonstrating that the rate is fair with due attention to economy, efficiency, competition and sound development banking principles.

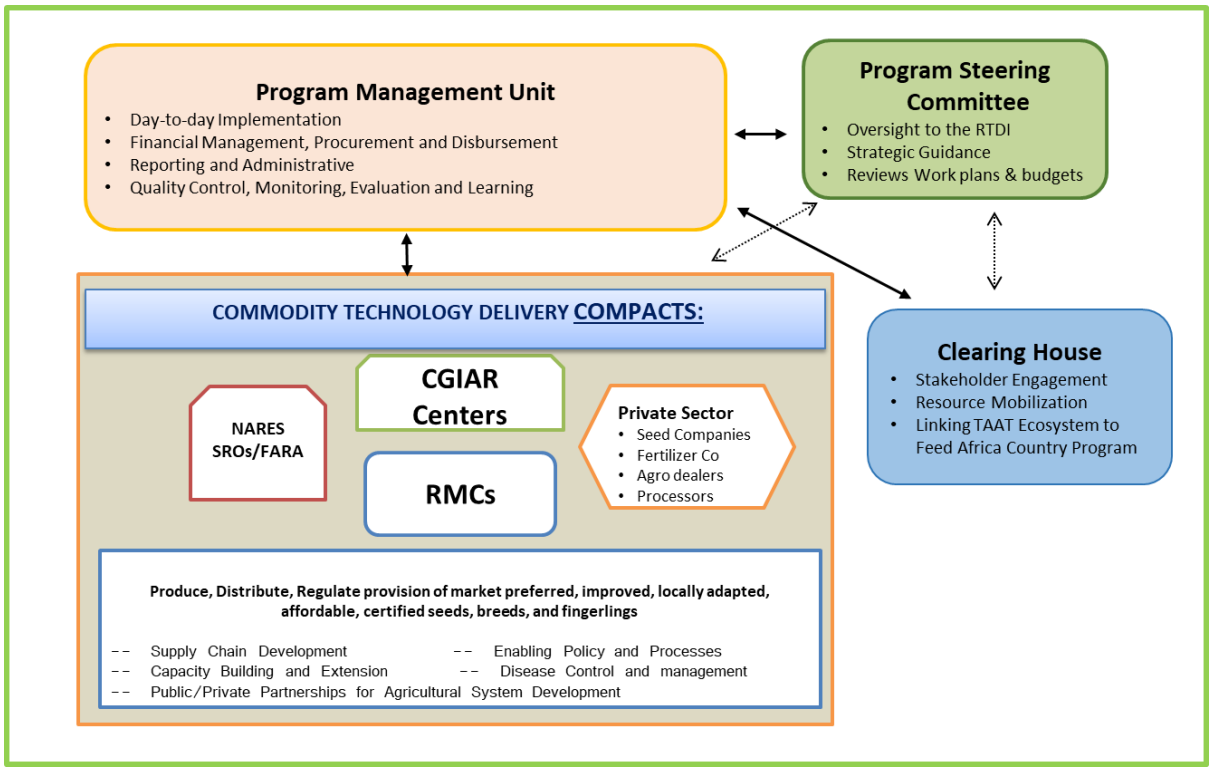
Payment of both indirect costs and personnel expenses associated with project implementation is further supported by the provisions of **Section 4.3.1 *(Recurrent Costs)* of the Policy on expenditure eligible for Bank Group Financing, ADB/BD/WP/2007/106/Rev.2 – ADF/BD/WP/2007/72/Rev.2, dated 2 May 2008**, which provides that "*While maintaining the current eligibility of recurrent costs, it is proposed that the Bank Group should be able to finance the recurrent costs of income-generating and non-income generating projects, up to 100%, on a case-by-case basis. The rationale for this proposal is that operations in the RMCs generally have a high recurrent cost component.* ***These costs will be financed if it can be shown that they are: (i) an integral part of the project; (ii) necessary for achieving project development objectives; and (iii) productive in the specific project financed***.

The three conditions required to justify ADF financing of recurrent costs with the TAAT programme, which include payments of personnel and indirect costs, are firmly met. As we explain above and in more detail throughout the PAR, the CGIAR develop and offer the agricultural technologies that are a prerequisite of the agricultural transformation TAAT seeks. In addition to the technologies, the CGIAR and their network of partners have the world's leading store of agricultural expertise required to support the deployment of these technologies at scale. The CGIAR are thus, ***(i) an integral part of the TAAT programme,*** and accessing their vast store of agricultural technologies and expertise is ***(ii) necessary for achieving project development objectives.*** Finally, as well respected institutions managed according to international best practice principles, CGIAR centers are able to attract world class resources cost effectively and deploy them efficiently. Certainly, financing their contributions to shared TAAT objectives assures the Bank of value-for-money and is ***(iii) productive in the specific project financed***.

Appendix 7: TAAT Implementing Structure

The TAAT implementation vehicle, defined as the Regional Technology Delivery Infrastructure (RTDI) was developed as defined in the TAAT Project Framework and is made up of the following four units as grahically depicted below and explained in more detail.

Components of the TAAT Regional Technology Delivery Infrastructure



The TAAT Project Steering Committee (PSC): The Project Steering Committee (PSC), which provides oversight and general guidance, is composed of representatives of AfDB, African Ministers of Agriculture of participating RMCs, CGIAR Centers, AGRA, the Private sector, NARES and regional farmer organizations. The PSC established under TAAT and approved by the Bank, will continue to provide strategic guidance to the RTDI. The PSC will be called upon to contribute to helping direct TAAT expertise and investments toward relevant agricultural projects and help linking the TAAT RTDI more effectively with country programmes.

The TAAT **Project Management Unit (PMU):** The Project Management Unit (PMU) will continue to be housed at the International Institute for Tropical Agriculture (IITA). Currently housed in IITA headquarters in Ibadan with a number of staff based out of their Nairobi office, TAAT II will have a larger cohort based in Nairobi to balance out regional support to the compacts. The PMU plays the main role in project management, monitoring and co-ordination. In addition to overseeing the day-to-day implementation of project fiduciary and administrative activities, it is responsible for executing and managing the contractual relationship with all TAAT Compacts and implementing partners. The PMU therefore has the responsibility to ensure that all partners are executing their activities according to plan and deploying TAAT resources, as be terms set out by the programme. The PMU ensures all required financial and implementing reporting is compiled and appropriately presented to the Bank. The PMU also organizes the transfer of project resources to contract implementing partners and serves as the key liaison to the Bank. The PMU will have additional responsibilities for quality assurance, monitoring, evaluation and learning.

Commodity Technology Delivery Compacts: At the heart of TAAT's technology, deployment effort is the Commodity Technology Delivery Compact (CTDC), described in detail in the Project

Framework document. The CTDC, more generally referred to as TAAT commodity or enabler compacts, are a consortium of partners contracted by the PMU to carry out a specific set of activities and deliver outputs aligned with the broad set of TAAT objectives and the overarching Results Based Logical Framework. Each commodity or enabler compact has a lead organization that then partners with institutional partners or to deliver specific elements of the workplan contained in the implementation agreement signed with the PMU. The Institutes of the Consultative Group of International Agricultural Resource (CGIAR) Centers – the world's largest global agricultural innovation network and provider of agricultural technologies – form the backbone of the CTDC and work jointly with NARES, development agencies, CSOs, SROs, RECs and other providers of technical services across the agriculture sector. TAAT will continue to benefit from its existing relationship with the original TAAT compacts and has built in provisions for further investment into them.

The TAAT **Clearinghouse:** The Clearinghouse plays an important role with regards to project origination, technology selection and helping link TAAT technologies to country programmes. Under TAAT II the Clearinghouse will be responsible for the development of mechanisms to reach millions of African farmers through country investments with the proven agricultural technologies, and to help identify gaps that TAAT expertise can fill. With BMGF continuing its support to the Clearinghouse, the Clearinghouse will play an important role with respect leveraging commitments for scaling through Feed Africa country programmes. The Clearinghouse will also be called to support resource mobilization efforts to enhance and building upon TAAT-related activities. CH will be responsible of the secretariat of the PSC.

Appendix 8: Regional Public Goods (RPG) Justification for TAAT II
(building off the Framework Document)

TAAT supports activities and investments that develops goods, services and resources that are produced and consumed collectively by the public sector and, if appropriate, the private, non-profit sector. TAAT outputs are expressly regional in nature given the agro-ecological zoning of agricultural but also the requirement for regional harmonization of seed and agricultural inputs policies and the sharing of the technologies developed as global public goods by our CGIAR partners and others. The TAAT programme has been shown to align with all the following characteristics of RPGs:

i) ***non-rival benefits*** (i.e., one country's consumption does not subtract from the amount available to other countries),
ii) ***non-excludable*** (no country in the region can be excluded from benefiting),
iii) ***broad public interest and benefit*** (as demonstrated by letters of expression of interest from 23 low-income ADF RMCs and four ADB only RMCs and involvement of numerous NARES, FARA, SROs, and RECs in the formulation of TAAT)**;**
iv) ***regional dimension or multi-country involvement*** (23 low-income RMCs are targeted; Four ADB only countries have expressed interest; TAAT adopts a regional, agro-ecological and commodity belt focus and will work with the RECs to ensure that the benefits from TAAT-derived RPGs are appropriated widely; TAAT will renew the drive to transform Agriculture in Africa by scaling up regional cooperation in combatting crop and livestock diseases, and accelerating delivery and development impact);
v) ***strong alignment with the Bank's strategic orientation and continental and regional objectives*** (TAAT is aligned with the Bank's Ten-Year Strategy and four of the five high priority goals - the "**High 5s**"- namely; Feed Africa, Industrialize Africa, Integrate Africa, and Improve the quality of life for the people of Africa; TAAT is one of the flagship initiatives identified in the Bank's Feed Africa: Strategy for agriculture transformation in Africa: 2016–2025);
vi) ***catalytic and upstream role*** (TAAT's interventions will remove bottlenecks and disincentives that have forestalled uptake of agricultural technologies in Africa and upstream segments of commodity value chains, making it catalytic and upstream; Given that the commodities of

focus in TAAT are strategic to the Bank's RMCs, as underscored by CAADP, TAAT will clearly play a catalytic role to engender strong support for these commodities, and

vii) ***higher developmental impact in cooperating*** (given that crop and livestock diseases travel freely across national boundaries, making it impossible for individual countries to achieve anything better than in cooperation). The different products from the CGIAR's research work (earlier indicated) are indeed RPGs made widely available to individuals and organizations working for sustainable agricultural development in the world.

Appendix 9: Eligibility to grant funding and cost-sharing exemption

TAAT Country Programmes benefit from and deepen the application of science, technology, innovation, knowledge and GAPs to sustainable agricultural development in Africa. In addition, given TAAT's regional, agro-ecological and commodity belt focus, many of the currently targeted low-income RMCs (e.g., Burundi, Chad, Congo DRC, Guinea-Bissau, Mali, Sierra Leone, South Sudan, and Sudan) are loan ineligible and in fragile situations. TAAT II (like TAAT I) possesses a high developmental impact - with respect to economic and social advancement through amongst others, the following; (i) employment generation, (ii) trade promotion, (iii) security improvement, (iii) gender equality and, (iv) climate change and adaptation, and therefore, meets the eligibility criteria for cost-sharing exemption and full grant financing through resources outside the PBA allocation *(i.e. exclusively from the RO envelope).* The below table describes in more details and offers further justification for approving full grant funding and cost-sharing exemption for the combine TAAT II.

Criteria		Response in relation to TAAT
5.1	The paper proposes that projects must meet all the stage I criteria. This is based on the justification that the project has demonstrated that it addresses an issue or a product which is a core activity for regional development and integration, and which provides an environment for complementary investments while at the same time will be demonstrating the free riding issue. Stage II criteria will, in turn, help to prioritize the pipeline of the ROs in that the higher the score, the higher it would be on the priority list and vice versa.	TAAT meets all the Stage I criteria (**Non-rivalry**, **Non-excludability**, and **Of Public Interest**) for financing RPGs. How TAAT meets all these stages I criteria has been elaborated in Appendix 12. As also elaborated in Appendix 12, TAAT also meets all the Stage II criteria (**Multi-country involvement**, **Strategic Alignment**, **Catalytic and Upstream Role**, and **Higher Developmental Impact in Cooperating**).
5.2	While developing the ROs pipeline on a two-year basis, consideration will be given to regional and sectoral distribution of the RO investments and balance will be sought where possible. In the specific case of the RPGs, experience to date (August 2008) has shown that there is a high demand for such operations which fall within the priority areas of the Bank's vision and strategic directive. Grant resources for RPGs will remain limited. Prioritization of grant-based RPG projects in the ROs pipeline will also be done on the basis of their readiness.	The TAAT operation clearly falls within the priority areas of the Bank's vision and strategic directive. This has been well elaborated in paragraphs 1.4 and 1.5 of the TAAT Programme Framework document, among others.
5.3	Cost sharing exemption will be proposed only for those projects which demonstrate the best ranked eligibility to RPGs, as defined by the stage I and stage II criteria, including to Regional Economic Communities (RECs). Moreover, a specific component within a project may also be eligible for grant financing if that component can clearly demonstrate RPG eligibility. However, in the case of the latter, a component within a project may not be eligible for cost-sharing exemption if the implementation of that specific component falls in a loan eligible country, and/or is embedded as having revenue generating	The activities planned to be funded with RPG resources in TAAT do not have revenue generating capacity. Besides, many of the 22 low-income RMCs targeted in TAAT's regional, agro-ecological and commodity belt focus are loan ineligible. Six (6) of them are fragile and conflict-affected states. This provides another strong reason for cost-sharing exemption in this initial phase of TAAT (TAAT I).

capacity. Financing in this case would be through the RO cost-sharing formula.	
5.4 Remaining projects, even though qualified as Regional Public Goods would need to be financed according to the general principles laid out in the Regional Operations Framework, i.e. through cost sharing agreements with the recipient countries.	Not applicable for TAAT, at least the centrally managed activities.
5.5 Lower ranked operations to RECs or for which cost sharing agreements cannot be found would need to be taken out of the RO pipeline or postponed to the next ADF cycle.	Noted.
Grant resources outside the PBA allocation (i.e. exclusively from the RO envelope) will be considered for those projects which demonstrate superior developmental impact- with respect to economic and social advancement through amongst others, the following: employment generation, trade promotion, security improvement, gender equality and climate change and adaptation. The list of such projects will be determined by the ranking stemming from the rating assessed during the previous stage and endorsement by the Operations Committee.	The TAAT programme will promote deployment and use of gender sensitive proven agricultural development technologies. It will promote agricultural innovations that reduce workload and hardship for women, increase their productivity and income. Programme activities such as: (i) harmonizing/streamlining technology release and seed system policies across countries and regions (for spill-over effects), (ii) capacity-developing weak seed systems, (iii) ensuring that improved crop varieties and livestock breeds for specific agro-ecological zones are widely applied/used, (iv) identifying and removing constraints to agricultural technology adoption through policy audits, (v) identification and selection of best-bet technologies for uptake by RMCs, (vi) design & develop campaigns for trans-national control of pests and diseases (and related awareness raising that pest and diseases do not respect political boundaries), (vii) deployment of appropriate technologies through crop/livestock campaign in RMCs, and (ix) design and implement wide-scale farmer extension and innovative models to organize farmers will trigger greater efficiency and additional production, processing and marketing of the target commodities. At full programme development, the estimated additional tons of food will be realized, with its multiplier effects. Providing climate-proof varieties of the target crop commodities and improved breeds for small livestock and aquaculture to millions of farmers in programme in the target low-income RMCs and beyond will provide them and consumers with food and other benefits. Congenial policies and institutional frameworks for profitable and

	sustainable value chains development of the strategic commodities as well as enhanced national and regional capacity in agricultural policy and institutional development work are expected. Rural populations in the target low-income RMCs are the primary beneficiaries of TAAT, expected to directly or indirectly benefit **individuals** (e.g. male farmers, female farmers, professionals, etc.), **groups** (e.g. farmers' groups, women, smallholder farm families, the youth, the private sector, policy makers, marketers/traders, transporters, and fabricators and small-scale agricultural machinery manufacturers, etc.), and **institutions** (e.g. NARES, CGIAR, FARA, AGRA, RECs, other players in agricultural development) in RMCs. The other beneficiaries are **inhabitants in the target low-income RMCs**, **consumers of target commodities**, **scientists** and **agricultural extension workers** involved in the project, and **all participants in the target commodities**. Other group beneficiaries include the **RMCs through improvements in the national economy** as a result of increased local production of target value chains. The programme will thus contribute to enhanced food security in the target Bank's low-income RMCs. It will contribute to build innovative partnership with CGIAR, FARA, AGRA, NARES, RECs, and other relevant key players to expand and accelerate the pace and efficiency of delivering improved innovations to reach millions of direct beneficiaries (farmers, women/private sector processors, policy makers, NARES, NGOs, marketers, traders, commission agents, fabricators and small-scale agricultural machinery manufacturers, transporters, and the private sector) across the value chains. Successful implementation of the project will positively affect all participants in the target value chains and will result in a sustained increase in the production of the selected commodities. Given that many new enterprises will spring up along the value chain of the target commodities, this programme is expected to create several new employment opportunities. This implies that the project will improve rural incomes while simultaneously promoting food security. For

	the farm households who will directly benefit from the intervention, about 50% extra income is estimated. Additional benefits will come from improved access to high yielding varieties (average yield increases of 20-50%) and improved agronomic, post-harvest, and processing practices. Numerous other benefits are contained in the Results-Based Logical Framework.

Appendix 10: CGIAR Transforming the Global Food System

CGIAR is a global research partnership for a food secure future. CGIAR science is dedicated to reducing poverty, enhancing food and nutrition security, and improving natural resources and ecosystem services. Its research is carried out by 15 international research centers in close collaboration with hundreds of national and regional research institutes, civil society organisations, academia, development organizations, and the private sector.

Since the establishment of CGIAR in 1971, CGIAR research has led to improvements in agricultural productivity – including productivity of crops, livestock, and fish – natural resource management and food policy across the developing world, increasing smallholders' incomes, and reducing poverty, hunger, and malnutrition. CGIAR's success stories include connecting small-scale farmers to markets, strengthening women's access to land and farming technologies, applying greener approaches to pest management, and improving children's nutrition, health and wellbeing.

The CGIAR has a large presence in Africa with four centers' headquarters on the continent (International Livestock Research Institute, World Agroforestry Center, International Institute of Tropical Agriculture, and Africa Rice Center) and most other centers having regional and country offices.

The challenge and CGIAR's vision and objectives

Achieving the Sustainable Development Goals depends on a food system simultaneously capable of delivering greater volumes of more nutritious food with a lower environmental footprint. Improving the food system to ensure an adequate and nutritious diet, especially for the world's most vulnerable people, is at the core of CGIAR's mission.

Agricultural research is a smart and critical investment – one that global society neglects at its peril. As world events again demonstrated in 2017, poverty and hunger have ramifications that are far-reaching and potentially explosive, and sustainable food production itself is inextricably linked to a host of factors that include environmental conservation, climate change, market access and equitable conditions for both women and men.

With a strong asset base in terms of skills, science and worldwide reach, thanks to its unique research for development partnership network, CGIAR is uniquely positioned to respond to today's pressing global challenges of food insecurity, environmental degradation, unequal prosperity, a changing climate, and the nutrition-related disease burden.

Producing more nutritious food with a lower environmental footprint requires collective action and opening up new opportunities for dynamic innovation.

"Agricultural research offers the opportunity for a single investment that provides multiple benefits. Investment in CGIAR expertise and our unique assets will ensure we can provide long-term value to the world."

Juergen Voegele, Senior Director, Agriculture, World Bank; and Chair, CGIAR System Council

CGIAR vision is a world free of poverty, hunger and environmental degradation.

The mission is to advance agricultural science and innovation to enable poor people, especially women, to better nourish their families, and improve productivity and resilience so they can share in economic growth and manage natural resources in the face of climate change and other challenges.

CGIAR's Strategy and Results Framework provides the strategic direction to deliver on our mission and contribute strongly to the United Nation's **Sustainable Development Goals** (SDGs). CGIAR has three major goals

1. **Reduce poverty;**

2. **Improve food and nutrition security;**
3. **Improve natural resources and ecosystem services.**

By 2030, the action of CGIAR and its partners will result in 150 million fewer hungry people, 100 million fewer poor people – at least 50% of whom are women, and 190 million HA less degraded land.

To implement this, the CGIAR developed a Business plan that runs from 2019 to 2021. The elements of this business plan add up to an ambitious but achievable set of innovations to create a more efficient, focused and less fragmented System. Not a one-off "big bang" reform, but a period of sustained change to proactively manage a necessary evolution of the CGIAR System as it faces profound shifts in its operating environment.**How to achieve impacts: Working at scale**

Research is expected to contribute to transformative change as outlined in the SDGs. To do this, CGIAR works on a broader agenda to solve systematic issues that get at the root cause of development. While technological breakthroughs will undoubtedly be essential, it is increasingly recognized that deploying new technology will require a complex set of interrelated technological, social, and policy and political changes.

CGIAR, through its portfolio of research programmes has repositioned itself to carry out integrated systematic research for development where research agendas are co-designed with those who use the research. Agendas are developed using innovative and iterative planning processes so that research is seen as part of a wider process for change. In order to achieve large scale impact, CGIAR works through partnership with a range of stakeholders such as private sector companies, civil society organization, government extension and others. In 2017, more than 30% of the partnerships formed in the CGIAR were with 'uptake partners' or development partners. This ensures that CGIAR research is relevant and provides a mechanism through these partnerships for the CGIAR research outputs to be scaled out.

According to a major new report on impacts of CGIAR research from CGIAR's Standing Panel on Impact Assessment (SPIA), innovations in agriculture are helping to reduce poverty and hunger, avoid infant deaths and put the brakes on forest loss, among other impacts for sustainable development.

Major impacts in last ten years

CGIAR has a wealth of experience and knowledge spanning 50 years that builds on a track-record of innovation and world class research. Some impacts include:

- Improved climate resilience in farming communities in 21 countries through the establishment of Climate Smart Villages which test and scale resilient food system innovations.
- Increased rice yield in 13 countries in Sub-Saharan Africa by .5 to 1 ton per hectare and profitability by US$200 per ha through smart mobile crop management tool called "Rice advice"
- Led responses to urgent and emerging diseases with global experts including Fall Armyworm outbreak in SSA and East Coast fever, a deadly cattle disease in East Africa
- Index based livestock insurance has insured more than 32,000 households and paid out almost 7 million USD over four seasons to 18,000 households
- Improved nutrition for 20 million people in low-income countries through increased access to critical nutrients via micronutrient fortified crops

The 2017 performance report lays out the range of outcomes and impacts the system is achieving.

How CGIAR is organized

'One CGIAR' is a more unified and integrated CGIAR, endorsed by the CGIAR System Council at its 9th meeting in November 2019. It is a dynamic reformulation of CGIAR's partnerships, knowledge, assets, and global presence aiming for greater integration in the face of the interdependent challenges facing today's world. It builds on CGIAR Centers as the essential building blocks.

The vision of One CGIAR is a world with sustainable and resilient food, land and water systems that deliver diverse, healthy, safe, sufficient, and affordable diets, and ensure improved livelihoods and greater social equality, within global and regional environmental boundaries.
Its mission is to deliver science and innovation that advance transformation of food, land and water systems in a climate crisis.

One CGIAR is targeting multiple SDG benefits across five Impact Areas, with collective global targets for transformation of food, land, and water systems across local, regional and global levels. These impact areas are: Climate adaptation and mitigation; Environmental health & biodiversity; Gender equality, youth and social inclusion; Nutrition, health and food security; Poverty reduction, livelihoods and jobs.

As part of the CGIAR 2022–24 Investment Prospectus, 32 Initiatives are grouped within three Action Areas: Systems Transformation, Resilient Agrifood Systems and Genetic Innovation. All Action Areas and the Regional Integrated Initiatives work together drawing on the capabilities of multiple Science Groups and five cross-cutting Impact Area Platforms.

CGIAR's governance model distributes strategic direction, governing and advisory functions among several entities, reflecting the diversity of stakeholders within the CGIAR System and the critical importance of ensuring that the voices of our partners inform our actions and decisions.

Built on a strong partnership between CGIAR's Funders and Research Centers, the governance model focuses on enabling Centers and Partners to conduct high-quality research for development based on a solid foundation of clearly defined roles, responsibilities and accountabilities. The sense of shared ownership and strong collaboration that exists throughout our governance structure, together with the deep commitment to partnership and transparency, provide maximum opportunity for CGIAR to deliver on its vision and the shared hopes and expectations of the CGIAR partnership as a whole.

How the CGIAR is funded

The CGIAR Centres receive no core funding – all funds go directly to programmes and projects. Investments from members of the CGIAR System may be delivered through the multi-Funder CGIAR Trust Fund for specific projects in CGIAR Centers. Funding to the CGIAR Trust Fund is channelled through three Windows, at increasing levels of Funder collective action:

- Window 3 (W3) – Project investments: funding allocated by individual Funders to projects within Centres (with partners) and that are aligned with the broad CGIAR objectives.
- Window 2 (W2) – Programme investments: funding allocated by individual Funders to CGIAR Research Programmes within the CGIAR portfolio as prioritized, defined and approved by the Funders collectively through the System Council; and
- Window 1 (W1) – Portfolio investments: funding allocated to the entire CGIAR portfolio of approved system-wide investments prioritized and allocated by Funders collectively through the System Council – supporting CGIAR as a whole.

In addition, Centres receive bilateral funding directly from other investors for specific projects.

TAAT and One CGIAR

TAAT and the two Regional Integrated Initiatives of the One CGIAR – one for West and Central Africa and the other for East and Southern Africa – have a lot in common in terms of the commodities of interest, themes, and the key objective of bringing proven agricultural innovations to scale. One CGIAR global thematic Initiatives also set up to collaborate effectively with the Regional Initiatives and feed potential innovations through them to the potential beneficiaries. Meetings have been held between the leaderships of TAAT and the One CGIAR Regional Initiatives towards ensuring mutually beneficial and effective partnership in their operations. There are good opportunities for learning from the respective planning and innovation processes of the programmes and agreed action points so far include jointly:

- mapping the enabling environment and interventions at national/regional levels.
- exploring the use of TAAT's Technology Delivery Infrastructure for outscaling by the Regional Initiatives which will in turn make contributions in terms of assessing scaling readiness of new technologies.
- leveraging additional resources in support of the efforts in scaling.
- organizing country and regional dialogues.

Appendix 11: Improved productivity by 2025

Commodity	Productivity baseline (2016) (MT/Ha)	Productivity as at 2020	Productivity 2025 (MT/Ha)	Land Coverage (Projected*)	Production (MT)
Maize	2	2.68	4	7,500,000	30,000,000
Wheat	1.5	3.4	3	8,333,333	25,000,000
Rice	2	3.2	4	3,750,000	15,000,000
Sorghum	1	4	2	8,500,000	17,000,000
Millet	1	3	2	5,000,000	10,000,000

Appendix 12: TAAT II Compact partners and deliverables

Compact/Entity	Partners	Key objectives/deliverables
1. Maize	AATF, IITA, Country-based partners (e.g., NAREs, CBOs, NGOs, and the private sector)in the target countries, Seed Companies, Finance & Credit Providers; Grain off-takers	To support production, certification and distribution of improved seed varieties. Will build on excellent achievements from TAAT I as well as restructuring and prioritizing technology out scaling; Engender increased uptake and use of high-yielding climate-smart maize varieties, (including bio-fortified crops & complementary technologies); Increase maize productivity and gross margins in maize enterprises in Africa
2. Wheat	ICARDA, CIMMYT, Innovation Platforms, Country-based partners (e.g.,	To support production, certification and distribution of improved seed varieties. To rapidly expand domestic wheat production and access of smallholder farmers to high yielding proven wheat technologies for achieving a widespread and transformative impact in terms of raising productivity, and increasing rural incomes, job creation

Compact/Entity	Partners	Key objectives/deliverables
	NAREs, CBOs, NGOs, and the private sector)	and economic growth; all leading towards attaining greater wheat self-sufficiency in African countries; Create enabling environment for the deployment and adoption of wheat production technologies in target countries and across agro-ecologies; Forge strong and strategic partnerships among stakeholders along the wheat value chain (production, processing and marketing) for advancing awareness, wider adoption of proven wheat technology and linking farmers to input and output markets national and regionally; Implement technology scaling up and dissemination activities with the inclusion of youth and women to increase productivity, raise income, creating jobs and, develop the wheat value chain and commercialization
3. Rice	AfricaRice, AATF, Country-based partners (e.g., NAREs, CBOs, NGOs, and the private sector) OCP{ Equipment Fabricators, SMEs in rice enterprises, Innovation Platforms	To support production, certification and distribution of improved seed varieties. To obtain at least 25% yield increase in rice production and create 12,000 jobs (50% of youth and women), with a 50% increased average annual household cash income, and further reduce wood consumption in rice parboiling for high end markets
4. Cassava	IITA, CIAT-CLAYUCA, Country-based partners (e.g., NAREs, CBOs, NGOs, and the private sector)	To support production, certification and distribution of improved seed varieties. Delivery of improved planting materials, GAPs, etc. that lead to productivity increases; catalyze private-sector investments in cassava enterprises; Provide technical assistance in AfDB country programmes.
5. Sorghum/Millet	ICRISAT, Country-based partners (e.g., NAREs, CBOs, NGOs, and the private sector)	To support production, certification and distribution of improved seed varieties. To improve food security & livelihoods of farming families in the Sahel region through sustainable intensification and better profitability of the two major staple crops of the region; Improve the food and nutrition security of smallholder families, especially of women and children; Increase production and productivity of sorghum/millet through sustainable use of improved varieties and GAPs; Increase smallholder farmers income, and create innovative jobs for youth in the rural sector; Increase value chain efficiency through the reduction of postharvest losses, increase produce quality, aggregation, traceability, large-scale processing and transformation in sorghum and millet value chains; Enhance crop-livestock integration through the increased production and efficient utilization of sorghum and millet stover
6. Livestock	ILRI, CIAT, Country-based partners (e.g., NAREs, CBOs,	To support production and distribution of improved livestock breeds. To target proven technologies across livestock species and value chains to beneficiaries in targeted low-income African countries; to align compact

Compact/Entity	Partners	Key objectives/deliverables
	NGOs, and the private sector)	activities with the AfDB Feed Africa strategy; focus on scaling activities with knock on effects on multiple value chains; support the national systems and partnerships in a concerted effort to increase the productivity and profitability of these value chains through the promotion of proven technologies that improve livestock genetics, feed, health, production systems and marketing
7. Fishery	WorldFish, NARES, Aquaculture Value Chain Actors' and Fisher Folks' Associations/ Organizations, Fish breeders; Clinton Development Initiative (CDI)	To support production and distribution of improved fingerlings and other inputs that contribute to improving productivity. To develop the fisheries sector through increased fish production, consumption and incomes of small-scale fish farmers and fisher folk leading to better nutrition and livelihoods; Increase productivity growth in fisheries and aquaculture through strategic investment and technology support; Support gender-inclusive entrepreneurship, employment creation and income generation from fisheries, aquaculture and associated value chains; Promote evidence-based investment and policy-level decision-making in fisheries and aquaculture; Promote evidence-based climate-sensitive investment in fisheries and aquaculture
8. Nutrition	CIAT/lead, CIP, World Veg, IITA, Country-based partners (e.g., NAREs, CBOs, NGOs, and the private sector)	To create an enabling environment for the dissemination and adoption of elite banana/Plantain, high iron beans, OFSP, Soybean, and Vegetable cultivars; To contribute to a RTDI; To deploy appropriate technologies for upscaling and delivery of , high iron beans, OFSP, Soybean, and Vegetable nutritious products; To efficiently manage resources through effective, result based programme management approaches
9. ENABLE-TAAT	IITA, IYA in various countries.	To assist in the promotion of TAAT's key agricultural technologies and increasing participation of youth in agriculture; Operate technology and innovation centers for young people on specific commodity value chains: and stimulate youth-led agribusiness start-up in support of TAAT's Priority Commodity Chains; extend the Agripreneur model in preparing young people for career path in agriculture.
10. . Capacity Development and Technology Outreach	FARA, RECs	To strengthen Innovation Platforms innovation for delivery of inputs and technologies to farmers.; To strengthen input and output market systems in selected countries through strengthening agro-dealer networks; To increase adoption of improved agriculture technologies for increased productivity and household incomes
11. Policy	AATF, FAO, RECs, AGRA	To facilitate transformation through facilitative enabling environment (policies, regulations, institutions, support services and other conditions that collectively improve a general business setting where business activities can start, develop and thrive); Engender the right agricultural investment decisions that are anchored on a robust agricultural investment strategy; Enhance the implementation of country specific and regionally

Compact/Entity	Partners	Key objectives/deliverables
		harmonized agro-input (seeds and pesticides) regulations through advocacy and engagement of policy makers; Facilitate the formulation and/or review of agricultural policies, regulations and other relevant instruments; Conduct in-depth seed industry other sectoral and policy assessments; Provide TA to RMCs and the AfDB's Feed Africa flagship programmes to improve quality at entry and at various phases of project cycle; Strengthen capacity in RMC in policy and investment analytics, tools and practices

Appendix 13: TAAT II Compact partners and deliverables

No.	Component Name	Cost (UA million)	Description of activities
1.	**Creation of Enabling Policy and Regulatory Environment (EE)**	**2.85**	This focuses on supporting processes to develop, implement and enforce policies and regulations conducive to a productive, inclusive and sustainable agricultural transformation. The key activities to be carried out under the EE component include: • Assist selected RMCs in developing seed roadmaps for maize, wheat, rice and soybean by establishing critical supply gaps and designing and providing technical support to improve seed systems; • Support policy reforms that address institutional, logistics and quality issues in fertilizer, seed and agrochemical supply to attract private sector investors to develop market-based agro-input systems; • Partner with RECs to assist RMCs on the domestication of regional seed, fertilizer and pesticide policies towards harmonizing national and regional agro-input regulations and catalyze their implementation' and • Establish guidelines for forming national and district-level Innovation Platforms (IPs) and strategic partnerships.
2.	**Regional Technology Delivery Infrastructure (RTDI)**	**4.93**	The RTDI is the network of strategic partnerships (including the RECs and their specialized institutions, ie: NARES) tasked to identify, develop and deploy the climate-resilient technologies, resources and infrastructure required to meet TAAT objectives. The key activities to be carried out under the RTDI component include: • Facilitate the establishment and operationalization of Innovation Platforms, a multi-stakeholder public-private sector platform, at national and local levels; • Mobilize public and private sector extension in the support of RMCs through the Innovation platforms of TAAT. • Provide technical inputs on appropriate crop, livestock, and aquaculture production technologies and soil fertility recommendations to design national and regional agriculture development investments financed by AfDB country sovereign loans; and

No.	Component Name	Cost (UA million)	Description of activities
			• Support the creation of national and regional agribusiness platforms to catalyze and promote investment opportunities for proven technologies.
3.	**Deployment of Appropriate Agricultural Technologies (DAT)**	**5.51**	The DAT component facilitates the link between the providers of agricultural technology, farmers, markets, and the consumer, serving as the TAAT Programme supply chain. In this component, the compacts will catalyse national governments and partners to scale TAAT-promoted technologies in selected RMCs. Key activities to be carried out under the DAT component include: • Facilitate the accelerated production and distribution of certified seeds, improved livestock breeds and fish fingerlings to RMCs • Provide resources to NARES to produce Early Generation Seed (EGS) and e technical assistance to the private seed companies to produce and deliver certified seed; • Conduct demonstration at Innovation Platform (IP) sites and organize national and local level technology promotion field days, to catalyze the scaling of TAAT promoted technologies; • Establish linkages between seed companies, seed producer associations, CSOs, agro-dealers and technology developers, as part of IPs, for a pipeline of new technologies; • Provide technical assistance to RMC to map existing agro-dealers and catalyze government, seed, fertilizer, and agrochemical companies to establish agro-dealerships in rural areas; and • Organize and train and empower women groups in agro dealer entrepreneurship
4.	**Project Management and Co-ordination (PM&CH)**	**9.09**	This component will ensure that TAAT II resources are effectively managed as required by the Bank's regulations. Key activities include the following: • Manage and co-ordinate the activities of all TAAT partners and ensure appropriate and timely monitoring and reporting; • Co-ordinate the mobilization of TAAT structure in the design and implementation country programmes; • Implement a M&E and MIS for Management of TAAT II fiduciary issues (Procurement, Disbursement, Financial Management) including providing M&E support to TAAT II implementing agencies (IAs); and • Prepare annual work programmes, budgets, reports and audit.
	Total Cost	**22.38**	

Appendix 14: Estimated Cost of the Programme by Component

				(UA '000)	
		Component	Foreign	Local	Total
		1. CREATION OF AN ENABLING ENVIRONMENT (EE)	2,242.68	560.67	2,803.35
		2. REGIONAL TECHNOLOGY DELIVERY INFRASTRUCTURE (RTDI)	2,237.07	2,596.30	4,833.37
		3. DEPLOYMENT OF APPROPRIATE TECHNOLOGY (DAT)	4,333.01	1,083.25	5,416.26
		4. PROJECT MANAGEMENT & COORDINATION	6,890.31	2,177.53	9,067.85
Total BASELINE COSTS			15,703.07	6,417.76	22,120.83
		Physical Contingencies	-	-	-
		Price Contingencies	174.30	89.56	263.85
Total PROJECT COSTS			15,877.37	6,507.32	22,384.68

Appendix 15: Project Expenditure Schedule by Component

Category		Totals Including Contingencies (UA '000)		
	2022	2023	2024	Total
1. CREATION OF AN ENABLING ENVIRONMENT (EE)	1,464.24	1,065.47	319.79	2,849.51
2. REGIONAL TECHNOLOGY DELIVERY INFRASTRUCTURE (RTDI)	1,994.28	1,790.94	1,144.45	4,929.66
3. DEPLOYMENT OF APPROPRIATE TECHNOLOGY (DAT)	2,488.61	1,937.05	1,091.89	5,517.54
4. PROJECT MANAGEMENT & COORDINATION	3,368.05	2,870.11	2,849.81	9,087.97
Total Project Cost	**9,315.18**	**7,663.56**	**5,405.94**	**22,384.68**

Appendix 16: Fragility and Resilience
Introduction

African countries, particularly those in which the project will intervene, are facing unprecedented security and humanitarian crises which accentuate the known structural fragility factors, notably the unreassuring political and security situation, the persistent economic vulnerability, the significant infrastructure deficit, the marked environmental and climatic fragility, the unstable regional context, and finally situations of social fragility accentuated by various forms of inequality. Unequal gender relations have increased women's vulnerability. A large proportion of the population in these countries is either internally displaced or refugees in neighbouring countries due to physical insecurity, which deprives them of proper access to land to engage in agricultural production. Countries such as Chad, Niger, Burkina Faso and Mali are the most affected by this security crisis. The increase in natural disasters in these countries, and soil degradation are all factors of fragility that add to the age-old social challenges of these countries. In this context, women, children, people living with disabilities and internally displaced persons are the most vulnerable segments of the population as they have the least access to recovery opportunities.

African economies and African societies rely highly on agriculture. Despite this, agriculture in most African countries is still characterised by small-scale, low-technology, rainfed farming. This leaves farmers and food production systems highly vulnerable to climate-related, economic, and other shocks. Moreover, African Farmers are still recovering from the disruption inflicted on input and output markets by Covid-19 , coupled now with the ripple effects of the war in Ukraine. Hence agriculture on the continent as a whole and transition states in particular is in need of innovations in science and technology and investment, to boost production and productivity. The note aims to apply the fragility lens to the appraisal

of the TAAT II and further make concrete recommendations for building the resilience of the most vulnerable populations in the countries of project intervention.

Fragility factors in the agricultural sector

Despite its leading role in the Africa's economy, especially in transition States, agriculture faces many challenges.

Limited access to agricultural credit, is one of the main vulnerability factors of the sector. Most credit agencies are located in urban centres, which physically limits producers' access to credit since most of them are from rural areas. The conditions for accessing credit are prohibitive for many agricultural producers. Indeed, most Microfinance Institutions (MFIs) require the mobilisation of prior savings representing about one third of the loan amount (in countries such as Togo), and offer an effective global interest rate often close to 26% per year. In addition, there are mandatory application and insurance fees which, being fixed costs, represent a significant burden for small loans. Moreover, the rates charged are sometimes linear, which does not allow for early repayment. Finally, and most importantly, MFIs generally have little knowledge of agricultural activity and consider this activity to be too risky (climatic hazards, poor integration into the market of small producers and fluctuating agricultural prices, lack of land guarantees), and not very profitable, as operating costs are high, due to the geographical dispersion of borrowers, or the small amount of loans, etc. These different factors make MFIs, like banks, in these transition States to move away from financing the agricultural sector and prefer to finance commercial activities, handicrafts and urban or rural entrepreneurship.

Climate change negatively affects the food security and economy of these countries, which are strongly linked to agriculture. In 2017, agriculture accounted for almost 40% of the GDP of the G5 Sahel countries and employed almost 70% of the workforce in Niger, Burkina, Mali and Chad, and 52% in Mauritania. The multiplication of natural disasters in countries such as Guinea, and soil degradation in the Sahel countries are all factors of fragility that add to the age-old social challenges of these countries. According to UNDP statistics, in Benin 40% of agricultural land is degraded, resulting in production losses which then lead to a reduction in GDP estimated at 8% per year. The situation is similar Togo where drought has worsened considerably over the years, with a decrease in rainfall of 2.4% per decade and an increase in temperature of 1.1°C over the past half century. In the Horn of Africa, the loss of livestock and harvests resulting from drought cycles has caused the deprivation of millions of citizens. The effect has triggered mass migration within and several offshore destinations. Furthermore, obsolete and neglected agricultural systems in these countries all contribute to environmental degradation, natural resource depletion, soil fertility crises and declining agricultural output. These effects are particularly felt in rural areas where agriculture is practiced more and labour intensive.

Most farmers are invested in inappropriate, labour-intensive farming systems using rudimentary farming materials, with low productivity and production. Sustainability is very low or non-existent. Diversification of agricultural production which generally improves the resilience of farms to climatic and economic vulnerabilities, is very low. Farmers do not invest in the use of agricultural inputs such as certified seeds or fertilisers, either because they are not aware of these practices or they cannot afford the high cost of these agricultural inputs. In addition, the private sector is not sufficiently involved in the importation, production and distribution of improved seeds and fertilisers. Moreover, the private sector is not sufficiently involved in the production and distribution of improved seeds and fertilizers. Where they are

found, their involvement is not sufficiently regulated by the government so that farmers can fully benefit from their services.

There is usually insufficient capacity of the various actors both at the local level (farmers, smallholder farmer organisations) and at the institutional level (National Food Security Agencies, Agricultural agencies etc). Producers need training in efficient technological and innovative agricultural practices for high crop yields, storage, processing, preservation and packaging methods and marketing. There is a need to strengthen the entrepreneurial capacities of women and young farmers to promote the sustainability of their work.

In transition States, a large part of the population is either internally displaced or has taken refuge in neighbouring countries due to physical insecurity, which deprives them of proper access to land to engage in agricultural production. Countries such as Mali, Ethiopia, Chad, Niger, and Burkina Faso are seriously affected by security crisis. Despite national, regional and international efforts to improve security, the situation remains complex and difficult. In these countries, insecurity is reported to have led to a decline in agricultural production and a disruption of the functioning of rural markets.

Application of the fragility lens in the project evaluation

N°	Fragility factors	Project considerations
1	Capacity building at the institutional level and supporting the institutions	<u>Component 1</u> • Assist selected RMCs in developing seed roadmaps for maize, wheat, rice and soybean by establishing critical supply gaps and designing and providing technical support to improve seed system. • Support policy reforms that address institutional, logistics and quality issues in fertilizer, seed and agrochemical supply to attract private sector investors to develop market-based agro-input systems; • Partner with RECs to assist RMCs on the domestication of regional seed, fertilizer and pesticide policies towards harmonizing national and regional agro-input regulations and catalyze their implementation' and
2	Effects of climate change on agriculture, environmental and soil degradation. Private sector participation	□ Facilitate the establishment and operationalization of Innovation Platforms, a multi-stakeholder public-private sector platform, at national and local levels; □ Mobilize public and private sector extension in the support of RMCs through the Innovation platforms of TAAT. □ Provide technical inputs on appropriate crop, livestock, and aquaculture production technologies and soil fertility recommendations to design national and regional agriculture development investments financed by AfDB country sovereign loans; and □ Support the creation of national and regional agribusiness platforms to catalyze and promote investment opportunities for proven technologies.

N°	Fragility factors	Project considerations
3	Inaccessibility of certified seeds, fertilizers and innovative technology. Lack of modern agricultural capacity to enhance sustainability of activities	Component 3 - Facilitate the accelerated production and distribution of certified seeds, improved livestock breeds and fish fingerlings to RMCs - Provide resources to NARES to produce Early Generation Seed (EGS) and e technical assistance to the private seed companies to produce and deliver certified seed; - Conduct demonstration at Innovation Platform (IP) sites and organize national and local level technology promotion field days, to catalyze the scaling of TAAT promoted technologies; - Establish linkages between seed companies, seed producer associations, CSOs, agro-dealers and technology developers, as part of IPs, for a pipeline of new technologies; - Provide technical assistance to RMC to map existing agro-dealers and catalyze government, seed, fertilizer, and agrochemical companies to establish agro-dealerships in rural areas; and - Organize and train and empower women groups in agro dealer entrepreneurshi

Recommendations

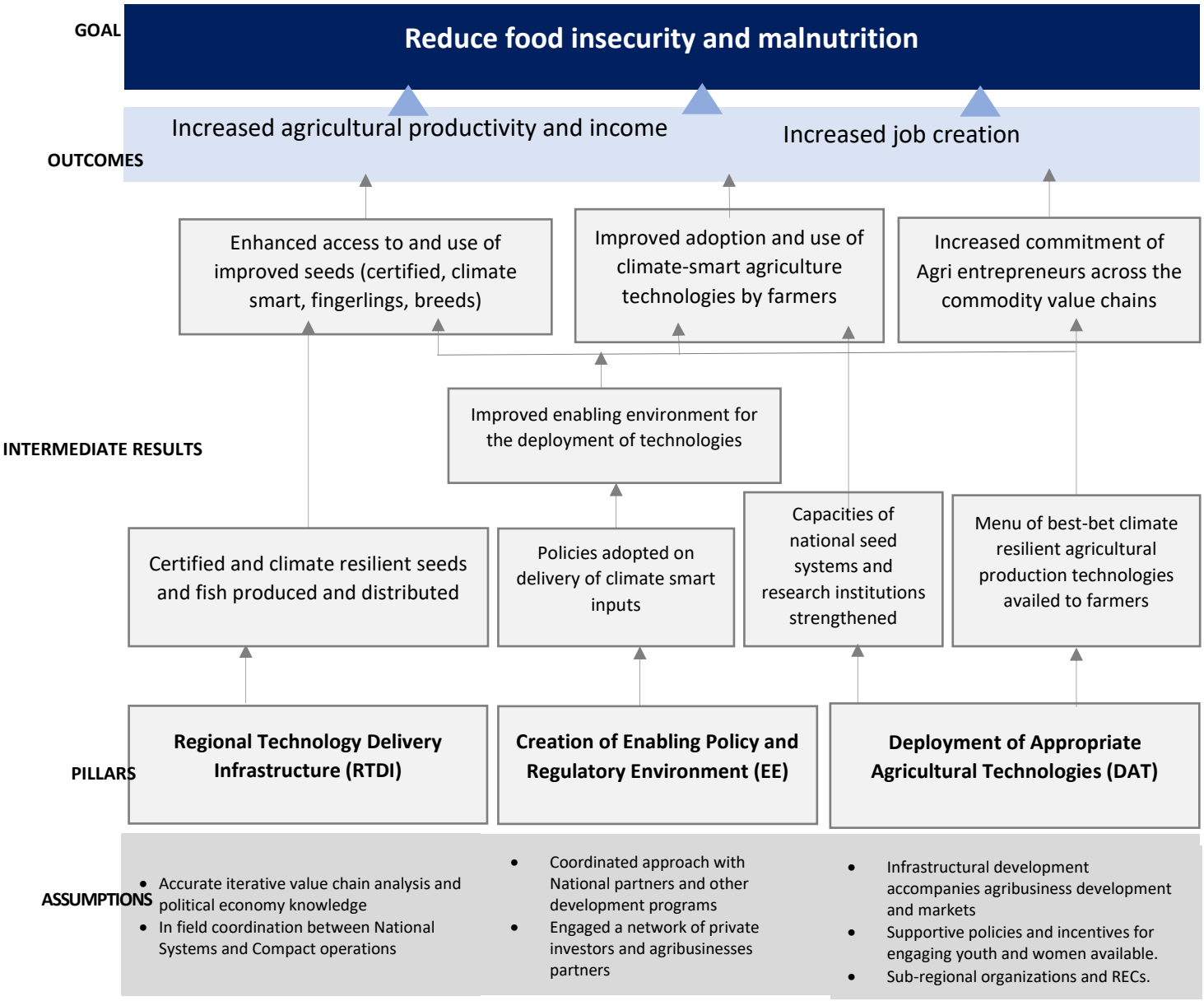
The TAAT II Program is in itself an initiative to build resilient communities on the continent as a whole and mainly in the rural areas predominantly invested in agriculture. Moreover, it is an innovative initiative to catalyse the use of technologies adapted to local realities. To further build and enhance resilience, it is recommended that the following be considered in the project design:

- In the specific case of transition States, this is an opportunity for the Bank to provide a response that integrates the development-humanitarian parameters by strongly including Internally Displaced Populations in this project. This will strengthen their livelihoods and increase social cohesion with host populations.

Appendix 17: The TAAT Theory of Change and Impact Pathway

The underlying theory of change (ToC) for TAAT has been designed with a set of assumptions about why and how the program activities will foster positive changes to influence its intended beneficiaries. It outlines how the activities of TAAT, grouped as pillars, will lead to outputs in relation to policy reforms, seed production and distribution and dissemination of agricultural technologies. These outputs, are designed both to improve the enabling environment, increase access for farmers to game-changing technologies and other agricultural inputs, and increase engagement of agripeneurs across the value chain. These all contribute primarily to increased production and productivity for targeted crops; but also increases in household income and job creation along the value chain. These outcomes align with the project development objective of TAAT, which focuses on productivity, production, and household income. These outcomes are also well aligned with the Bank's ultimate objective of reducing hunger and malnutrition in Africa. TAAT II is also well timed to complement support provided through AEFPF loans, which have the same objective at heart – to increase production and productivity.

The assumptions underlying the theory of change for TOC are also summarized. They include effective coordination with partners, willingness of agripeneurs to engage, effectiveness and appropriateness and ability of government to roll-out policy reforms, and crucially also supporting infrastructure around agricultural production and markets which ensure that gain made in increased production are not lost to other hurdles in the value chain. The theory of change, while at the core of the design of the TAAT programme is also a flexible tool and can accommodate revisions with new knowledge that may emerge over time and can accommodate the fact that TAAT's implementation and areas of focus necessarily vary across countries. Moreover, the design of compact-specific ToC is planned at the next stage, complementing the work already undertaken to clarify objectives and mechanisms for each compact. The compact-specific ToC will be aligned with the programmatic results framework and will inform and validate their respective development of Project Implementation Plans (PIPs). In addition, these will also provide a useful tool to help evaluate the success of TAAT II.


GOAL
Reduce food insecurity and malnutrition
OUTCOMES
Increased agricultural productivity and income
Increased job creation
Enhanced access to and use of improved seeds (certified, climate smart, fingerlings, breeds)
Improved adoption and use of climate-smart agriculture technologies by farmers
Increased commitment of Agri entrepreneurs across the commodity value chains
INTERMEDIATE RESULTS
Improved enabling environment for the deployment of technologies
Certified and climate resilient seeds and fish produced and distributed
Policies adopted on delivery of climate smart inputs
Capacities of national seed systems and research institutions strengthened
Menu of best-bet climate resilient agricultural production technologies availed to farmers
PILLARS
Regional Technology Delivery Infrastructure (RTDI)
Creation of Enabling Policy and Regulatory Environment (EE)
Deployment of Appropriate Agricultural Technologies (DAT)
ASSUMPTIONS
Accurate iterative value chain analysis and political economy knowledge
In field coordination between National Systems and Compact operations
Coordinated approach with National partners and other development programs
Engaged a network of private investors and agribusinesses partners
Infrastructural development accompanies agribusiness development and markets
Supportive policies and incentives for engaging youth and women available.
Sub-regional organizations and RECs.

Appendix 18: Risks and Mitigation

Risk category	Risk description	Rating	Mitigation measures	Risk owner
Sector strategies and policies	Lack of commitment to policy reform	M	Sensitization on the importance of agricultural policy reforms through targeted advocacy campaigns.	RMCs and RECs
	Delays in governments and long process in aligning national policies to regional ones	M	Dialogue using fact-based rationale for losses due to policies status quo	RMCs and RECs
	Lack of commitments in governments and long process in changing policies	M	Dialogue using fact-based rationale for losses due to policies status quo	RMCs and RECs
Technical design of the operation	Complexity of the operation	M	The existing project management Unit and the Implementing agencies have good experience in handling the implementation of similar Project of this size and cost, eg. TAAT I. However, the Project Team will be strengthened, and the new structure of the operation will be presented and discussed with the Team during the launching.	PMU and AFDB
FIDUCIARY AND VALUE FOR MONEY	Weak fiduciary capacity of executing agencies	M	Strengthening capacity of Executing Agencies via recruitment of professional fiduciary staff and procurement agents	PMU and AFDB

Appendix 18: Risks and Mitigation

Risk category	Risk description	Rating	Mitigation measures	Risk owner
Sector strategies and policies	Lack of commitment to policy reform	M	Sensitization on the importance of agricultural policy reforms through targeted advocacy campaigns.	RMCs and RECs
	Delays in governments and long process in aligning national policies to regional ones	M	Dialogue using fact-based rationale for losses due to policies status quo	RMCs and RECs
	Lack of commitments in governments and long process in changing policies	M	Dialogue using fact-based rationale for losses due to policies status quo	RMCs and RECs
Technical design of the operation	Complexity of the operation	M	The existing project management Unit and the Implementing agencies have good experience in handling the implementation of similar Project of this size and cost, eg. TAAT I. However, the Project Team will be strengthened, and the new structure of the operation will be presented and discussed with the Team during the launching.	PMU and AFDB
FIDUCIARY AND VALUE FOR MONEY	Weak fiduciary capacity of executing agencies	M	Strengthening capacity of Executing Agencies via recruitment of professional fiduciary staff and procurement agents	PMU and AFDB

Appendix 19: LEGAL INSTRUMENTS AND AUTHORITY

1. Conditions associated with the Fund's intervention

i. Condition Precedent to Entry into Force: The Protocol of Agreement shall enter into force on the date of its signature by the Recipient and the Fund.
ii. Conditions precedent to first disbursement: The obligation for the Fund to disburse the part of the Grant for financing centralised activities shall be conditional upon the entry into force of the Protocol of Agreement, and the fulfilment of the following conditions:

(a) engagement of a competitively recruited international accountant / financial management specialist at IITA, recruitment of a qualified E&S Specialist who shall be responsible for the implementation and monitoring of ESMPs at the level of the PMU, and appointment of a project internal auditor by IITA, each with qualifications, skills, experience, and terms of reference acceptable to the Fund; and
(b) submission of an updated Project Implementation Manual (PIM) that includes sections on Accounting and Internal Control Policies and Procedures, acceptable to the Fund, to guide implementation of the Project.

iii. Disbursement of the portion for on-granting to each concerned Implementing Agency shall be conditional upon fulfilment of the following conditions:

(a) submission of a list of identified Implementing Agencies and/or Partners, acceptable to the Fund, who will receive resources from the proceeds of the Grant, with whom the EA will execute Project Implementation Agreements (PIAs);
(b) execution of a tripartite Project Implementation Agreement (PIA) by the EA, the Fund and each concerned IA/Partner prior to receiving resources from the proceeds of the Grant, with tailored Results-Based Logical Framework (RBLF) outlining and tracking specific agreed expected deliverables directly linked to TAAT II's RBLF Key Performance Indicators (KPIs), a workplan, related RBLF, and attendant budget, in form and substance acceptable to the Fund;
(c) submission of a legal opinion(s), issued to the Fund by legal counsel acceptable to the Fund, confirming that the tripartite Project Implementation Agreement(s) signed amongst the IITA, the Fund, and the concerned Partner/Implementing Agency, has/have been duly authorized, ratified and executed on behalf of the concerned Implementing Agency and/or Partner, and constitutes a legally valid and binding agreements on the concerned Implementing Agency and/or Partner; and
(d) submission of a letter from each concerned IA/Partner, confirming designation/recruitment of a Project Accountant to provide financial management and reporting support to the PMU, and one focal E&S specialist for each country of implementation who shall be responsible for the implementation and monitoring of ESMPs, each with qualifications, skills, experience, and terms of reference acceptable to the Fund.

2.Undertakings

(a) IITA shall recruit a Procurement Agent (PA) with qualifications, skills, experience, and terms of reference acceptable to the Fund, to support the PMU in the implementation of the Project;
(b) For disbursement through Special Account, IITA and each Implementing Agency receiving on-granted funding, shall submit to the Fund a withdrawal request with a Special Account denominated in USD, opened at a commercial bank acceptable to the Fund;
(c) IITA and each of the Implementing Agencies shall provide, as promptly as needed, funds, facilities, services and other resources required as counterpart contribution for implementation of the Project, and/or necessary or appropriate to ensure that the goals of the Project and the purpose of the Grant are accomplished;
(d) IITA shall maintain the existence and functioning of the PMU, PSC and RTDI, each in a form and with a composition and Terms of Reference acceptable to the Fund, throughout the duration of the Project implementation period;

(e) IITA and each of the Implementing Agencies shall implement the Project in compliance with the Environmental and Social Management Plans (ESMPs), the Bank Group Safeguards Policies and Anti-Corruption Policies, and the applicable national legislation, in a manner and in substance satisfactory to the Fund;

(f) IITA shall prepare and submit to the Fund, quarterly reports on the implementation of the ESMPs including any implementation failures and related remedies thereof;

(g) IITA shall refrain from taking any action which would prevent or interfere with the implementation of the ESMPs including any amendment, suspension, waiver, and/or voidance of any provision thereof, whether in whole or in part, without the prior written concurrence of the Fund;

(h) IITA shall cooperate fully with the Fund in the event that the implementation of the project or a change in the project scope results in hitherto unforeseen displacement of persons, and not commence implementation of any works in any affected area(s) under the Project, unless all Project affected persons (PAPs) in such area(s) have been compensated and/or resettled in accordance with a Resettlement Action Plan (RAP) to be prepared by IITA; and

(i) IITA shall prepare and submit to the Fund, 3rd party E&S Compliance Audits in form and substance satisfactory to the Bank on an annual basis.