

African Development Bank

BUSINESS OPPORTUNITIES SEMINAR



Nairobi, **Kenya**

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Crowne Plaza Hotel

AfDB's Activities in the Agriculture and Agro Business Sector: Strategies and Pipeline of Projects



AfDB BOS



AFRICAN DEVELOPMENT BANK GROUP

Presentation Outline:

- I. Why We Need Africa-wide Agricultural Transformation
- II. AfDB's Strategic Response
- III. Costs and Financing
- IV. Key Flagship Initiatives
- V. Collaborations and Partnerships.
- VI. Pipeline Projects



I. Why we need Africa-wide Agricultural Transformation?

The imperative for agricultural transformation: Goals, Status and Targets

Goals

1 Contribute to the end of extreme poverty



2 Eliminate hunger and malnutrition



3 Become a net exporter of agricultural commodities



4 Move to the top of key agricultural value chains



Status Today

49% of Africans or 420 million live under the poverty line of \$1.25 per day (2014);

Those living in poverty will rise to **550 million by 2025** if we do nothing

33% of African children live in chronic hunger;

58 million children in Africa are stunted (under 5 years)

Staggering food net **food import bill of USD 35.4 billion** per annum (2015);

Net Imports projected to increase to **USD 111.0 billion by 2025** if we do nothing

Low value addition to agricultural commodities and **predominantly primary production**;

Africa's share in global production of cocoa beans is **73 % vs. 16%** share in ground cocoa

Target by 2025

Contribute to alleviating poverty though job creation and providing sustainable livelihoods;

~130m lifted out of extreme poverty

Food security for all Africans that are 'undernourished';

Zero hunger and malnutrition

Eliminate large scale imports of commodities that can be produced in Africa, and **selectively begin to export**

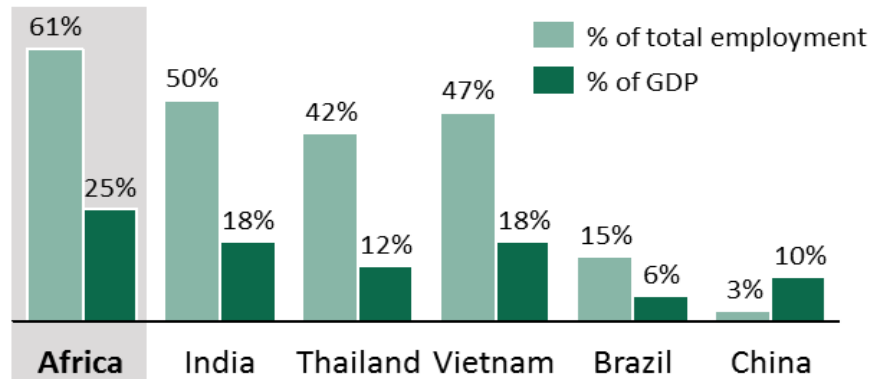
Africa's net trade balance – \$0 billion

Africa share of market value for processed commodities ~40% (Example for cocoa grinding)

Agriculture remains a major source of income in Africa; however, untapped potential has resulted in persistent poverty and deteriorating food security

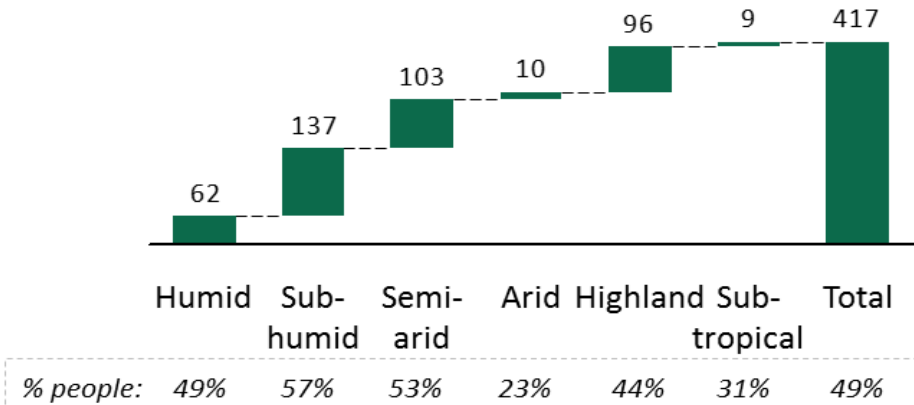
Gap between employment and income...

Agriculture as a share of employment and GDP; % 2014



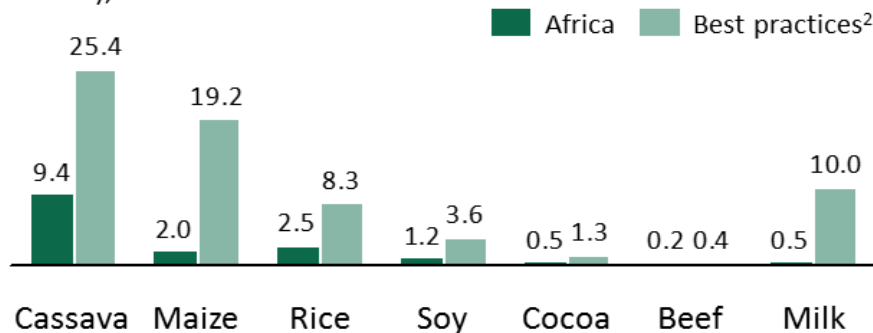
...resulting in widespread poverty.

Millions of Africans living on less than \$1.25/day; 2014



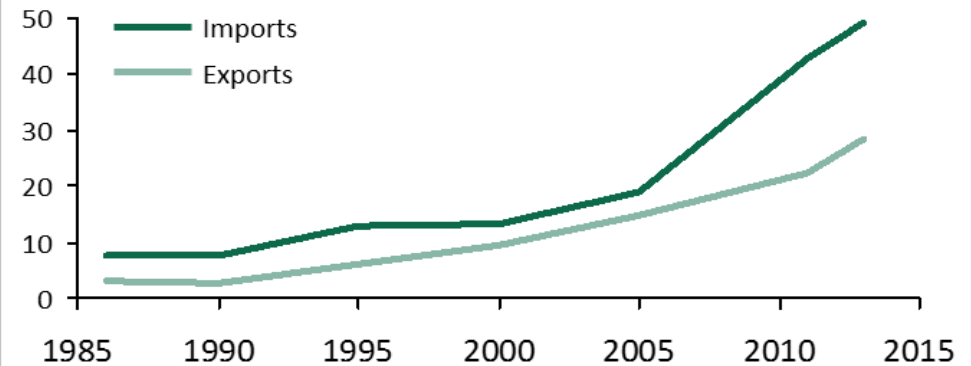
Relatively low productivity...

Average yields across Africa versus best practice²; mT/(hectares or animals), 2013

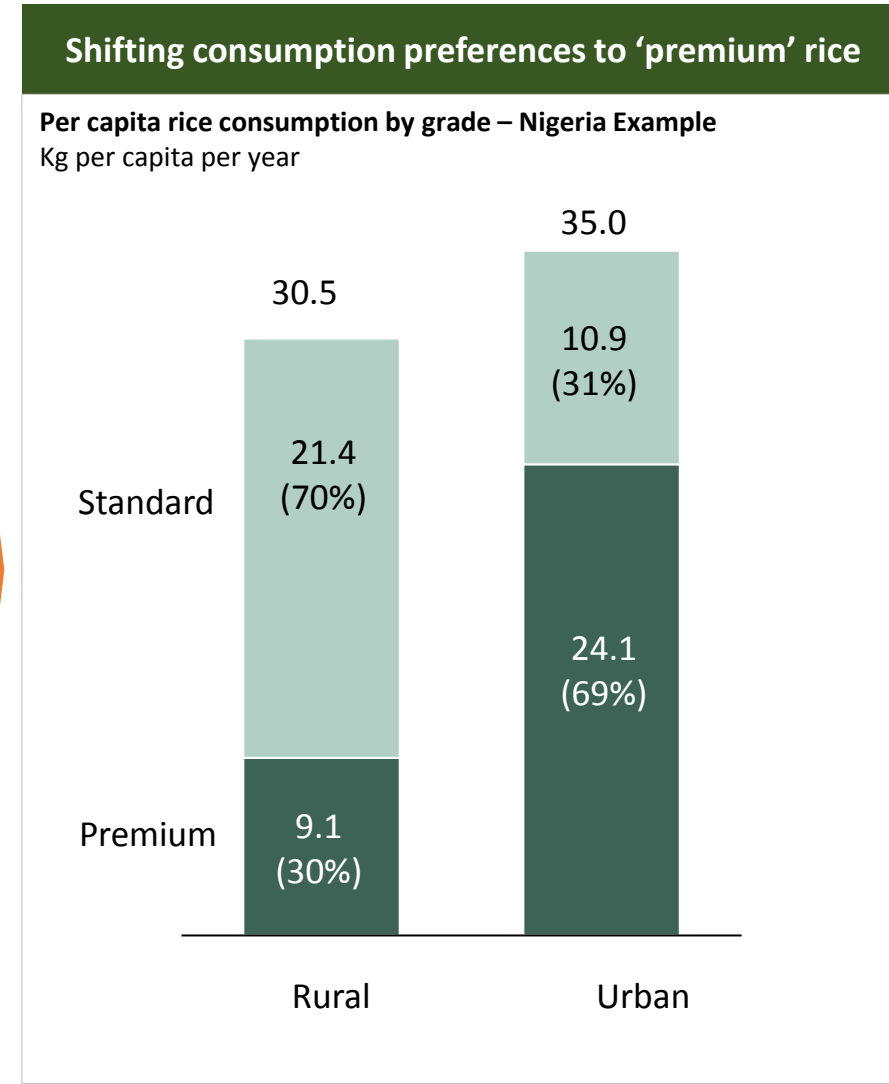
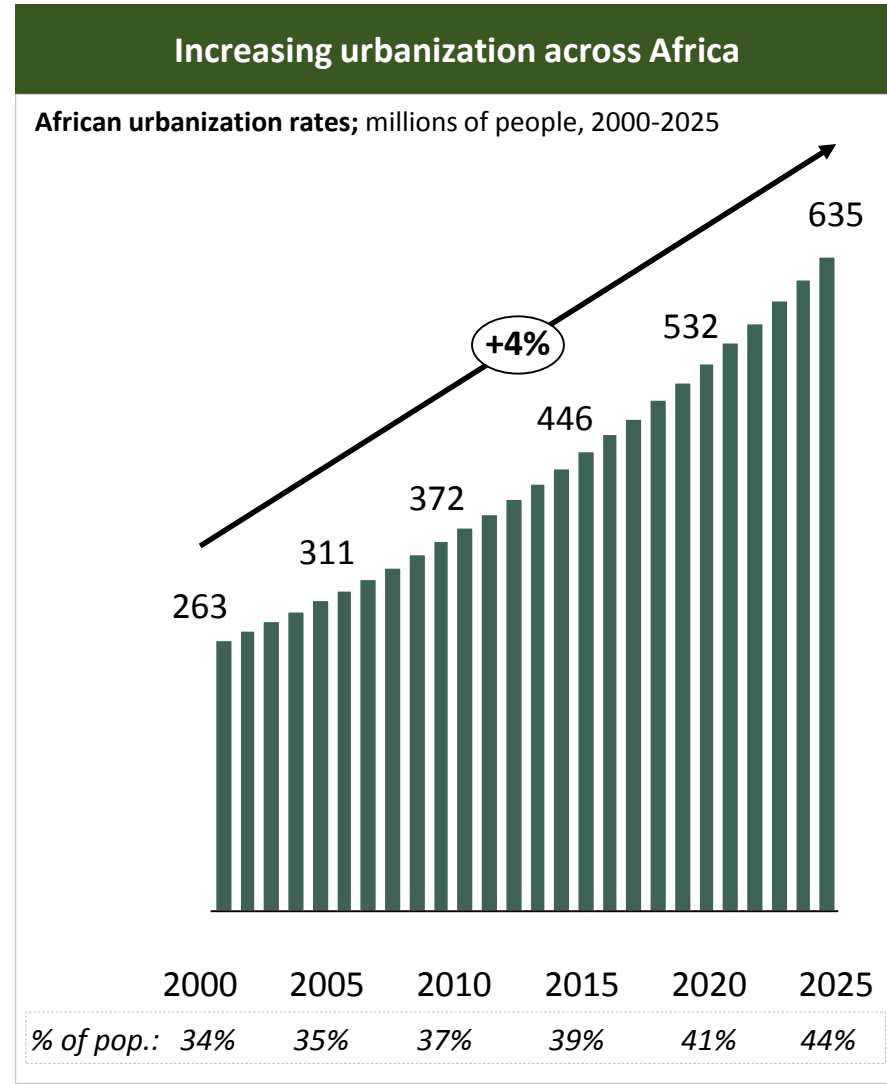


...and rapidly rising imports.

Imports vs exports³; billion USD



Urbanization is driving increased demand for food products that are not currently being supplied by African producers



Barriers crippling Africa's agriculture sector

Under-performing value chains	Limited coordination of <u>research and development</u>	Insufficient utilization of <u>inputs and mechanization</u>	Limited reach of extension to boost <u>on-farm production</u>	Poorly organized post-harvest <u>aggregation and transport</u>	Inconsistent capacity for effective <u>value addition</u>	Poorly developed <u>market linkages</u> and trade corridors
Insufficient infrastructure	Insufficient transport, energy, water, waste management and other <u>hard infrastructure</u> , leading to uncompetitive cost structures			Undeveloped <u>soft infrastructure</u> including aging smallholder farmers and a lack of skills for commercial agriculture and agro-allied industries		
Limited access to agricultural finance	Real and perceived <u>risk</u> limiting private sector investment		High <u>service cost</u> due to small deal sizes, lack of credit data, and low capacity in agricultural lending		Limited <u>market attractiveness</u> relative to perceived higher returns outside of the agriculture sector	
Adverse agri-business environment	Unfavorable <u>market access and incentives</u> limiting trade and capacity to produce high-quality products		Ineffective <u>sector regulation</u> creating long lead times for new technologies and inconsistent trade policies		Unsupportive <u>business enabling environment</u> restricting land tenure and general ease of doing business	
Limited inclusivity, sustainability and nutrition	Insufficient <u>inclusivity</u> of women and youth in agricultural development		Limited incentives to ensure <u>sustainability</u> and climate-resilient practices		Limited access and affordability of commodities with high <u>nutrition</u> levels	

II. AfDB's Strategic Response

AfDB's "High 5" Priorities

The High
Le Top 5 for transforming Africa
pour transformer
l'Afrique



1. Power and Light Up Africa



2. Feed Africa



3. Industrialize Africa



4. Integrate Africa



5. Improve Quality of Life of Africans

Country-level Transformation is already underway across Africa

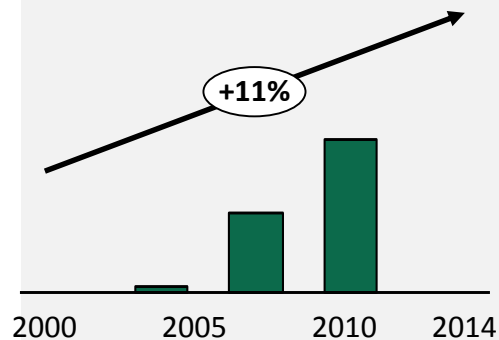
Becoming a major exporting player within 10 years



Kenya

Exporting horticulture out of Africa

Total horticulture exports, billion KSH



- Strong foreign investor and partner support developing and driving the industry
- Contract farming model used to assure consistent supply
- Political will to support smallholder farmer development

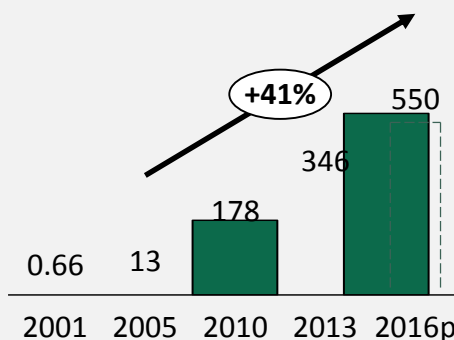
Becoming a major exporting player within 10 years



Ethiopia

Exporting floriculture out of Africa

Total floriculture exports, million USD



- Ethiopian Horticulture Producers and Exporters (EHPEA) actively managing the sector
- Strong Government support in (1) infrastructure and logistics, (2) access to land, (3) provision of long-term credit and (4) attracting domestic and foreign investors

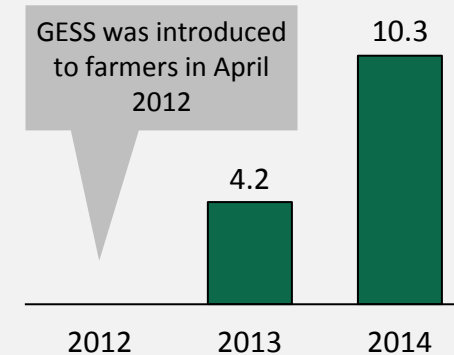
Improving yields through modernized input distribution



Nigeria

Scale farmer registration and input distribution

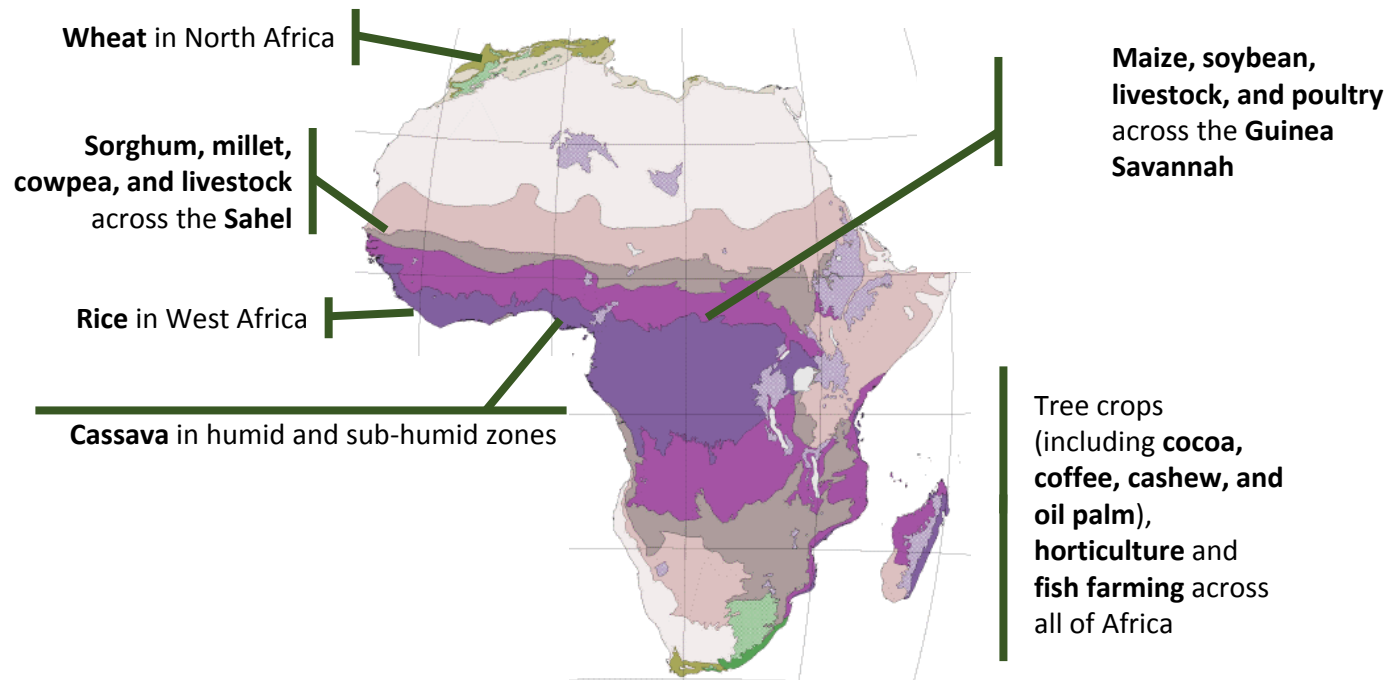
Total farmers registered, million users



- Strong political will and government support to transform the input supply system
- Use of public funds to leverage private-sector investment (i.e. agro-dealers networks)
- Leverage mobile technology to achieve scale and provide nationwide access

A focused approach on integrated commodity value chains

The Bank will pursue an agenda to transform key agricultural commodities and agro-ecological zones



In particular, Feed Africa will take a **commodity-focused integrated approach** – simultaneously addressing multiple bottlenecks across entire **prioritized agricultural commodity value chains** and within related **agro-ecological zones**

FeedAfrica Vision of Success and Priority Initiatives



Developmental outcomes: Eliminate hunger, malnutrition and extreme poverty, Africa becomes net food exporter, full engagement with global value chains

The AfDB - in collaboration with partners - will contribute to Orchestrate, Architect, Scale and Replicate Transformation through 7 Enablers

Feed Africa Enablers	AfDB Role		Partners
1 Increased Productivity	Orchestrate / Design	TAAT: increase investment into agriculture research and technology dissemination Inputs finance and agro-dealer network development: expand input finance and connect farmers to buyers Mechanization Program: establish facility for on-farm mechanization leasing	<u>AfDB/ CGIAR/ FARA/ IITA/ IFPRI/ World Bank/ AFAP/ FAO/ WFP-PPP/ Microfinance actors (e.g. PAMIGA)/ Equipment manufacturers</u>
	Scale/ Replicate	Develop agro-dealer supply systems Support wide-scale deployment of innovative farmer extension models.	
2 Realized Value of Increased Production	Orchestrate / Design	Post-Harvest Loss Prevention Facility: invest in infrastructure and training to reduce on-farm and post-harvest loss Warehouse receipts systems (WRS): scale WRS as 1st step for commodity exchanges Agro-processing zones and corridors: increase and link production and processing capacity along key corridors	<u>AfDB/ Rockefeller Foundation/ GAIN/ FAO/ World Bank/ UNIDO/ IFAD/ BADEA/ AGRA</u>
	Scale/ Replicate	Scale-up and replicate innovative models to organize and aggregate farmers Establish agricultural commodity exchanges	
3 Increased Investment in Hard & Soft Infrastructure	Orchestrate / Design	Infrastructure Coordination: accelerate and coordinate development of enabling hard infrastructure (energy, water, logistics) Market infrastructure: build market centers and associated service infrastructure Farmer e-registration: launch large scale farmer e-registration systems	<u>AfDB/ IFC/ IFAD/ GSMA/ BMGF</u>

Orchestrate, design, scale and replicate transformation through 7 enablers (cont'd)

Feed Africa Enablers

4

Expanded Agricultural Finance

AfDB Role

Orchestra
te/
Design

Risk-sharing Facility: catalyze bank lending to the ag sector through risk-sharing facility
Non-Bank SME Finance and Capacity-Building Fund: provide funding and capacity-building to SME funds as well as surrounding ecosystem (e.g. credit bureaus)
Project Finance Facility: Increase long-term funding to agriculture SMEs
Trade Finance Facility: scale up existing Soft Commodity Financing Facility
Sovereign Risk Support: Scale up Africa Risk Capacity (ARC) initiative (sovereign insurance solution to agro-ecological shocks)
Diaspora Bonds: create lending products to attract diaspora and institutional capital

Scale/
Replicate

Facilitate lower lending rates to agricultural players through Central Bank funds
Deepen and broaden agricultural insurance markets

AfDB/ KfW/ IFC/
Commercial Banks/
Central Banks

5

Improved Agribusiness Environment

Orchestra
te/
Design

Policy reform matrix: coordinate establishment of an Africa-wide policy matrix detailing the five groups of key policy changes required to enable transformation; key policy areas would be: (i) Land tenure, (ii) Input subsidies, (iii) incentives for local production and processing, (iv) financial sector deepening, (v) Regional integration and trade

Global Program for Improving Agricultural Statistics and Rural Development: improve statistical systems across African countries by building capacity in ministries and offering technical assistance

Scale/
Replicate

Facilitate land tenure reform through the Africa Land Policy Center
Provide technical advisory to governments to support agriculture development bank set-up / reform
Strengthen capacity of private-sector actors' (e.g. Chambers of Commerce) to advocate for favorable policies
Support development of Agribusiness Environment indices

AfDB/ World Bank/
IFPRI/
CAADP/NEPAD/AUC
/ RF/ MMP/
Rockefeller
Foundation/
Malabo Montpellier
Panel

Orchestrate, design, scale and replicate transformation through 7 enablers (cont'd)

Feed Africa Enablers

AfDB Role

6

Increased Inclusivity,
Sustainability,
Nutrition

Orchestrate/
Design

AFAWA Facility: establish a facility to promote women-owned MSMEs

Scale/
Replicate

Increase representation of women in agricultural research, and enhance gender-responsive research, monitoring, and evaluation

Orchestrate/
Design

Youth Jobs for Africa Agricultural Flagship Programs: establish facilities to increase youth employment and enhance skills in agribusiness (e.g. ENABLE Youth)

Orchestrate/
Design

Climate Resilience Funding: provide funds to support climate adaptation and climate smart agriculture practices

Scale/
Replicate

Encourage scale-up and replication of nutrition programs (through the Nutrition Trust Fund and other mechanisms)

AfDB/ CCIAT-CCFAS/ ONF International/ Green Climate Fund/ GREAT/ AWARD/ Jobs for Youth Fund/ IITA/ FARA/ Micronutrient Initiative/ BMGF/ FAO/ Dangote Foundation

7

Coordination

Orchestrate/
Design

Partnership among key actors from the public sector, private sector and development institutions

Scale/
Replicate

Support pan-African agriculture leadership initiatives (e.g. Leadership 4 Agriculture)

III. Costs and Financing

Achieving Feed Africa Goals requires Substantial Investment and results in massive Revenues

Investment required to transform Africa agriculture; USD billion, 2016-2025

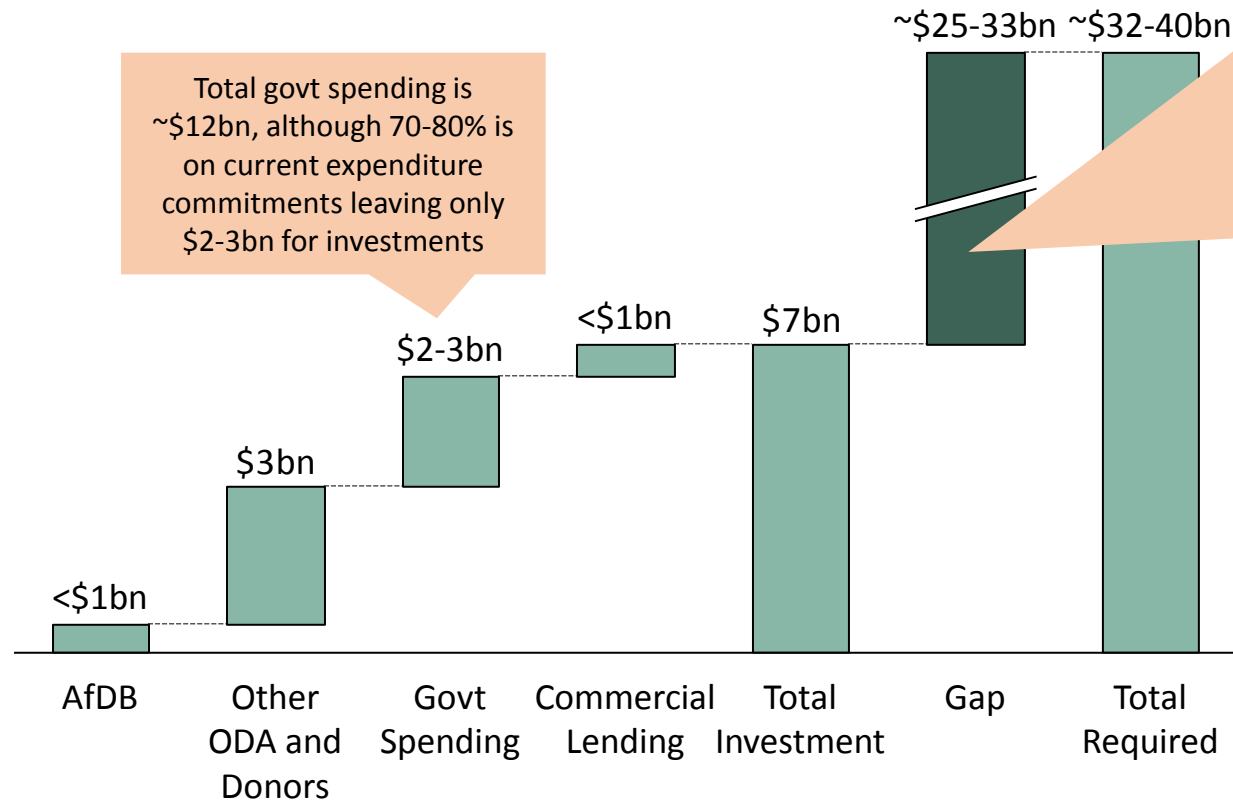
Indicative Estimate

Enablers											
Commodities / Agro-Ecological Zones	Value Chain Development			Hard & Soft Infrastructure ⁶	Ag. Finance ⁷	Enabling Environment ⁸	Inclusivity, Sustainability, Nutrition	ATA Partnership for Africa	Total	Annual revenue opportunity by 2025	
	Production ⁴	Value Addition ⁵	Total								
	Rice	~18-22	~3-4	~21-26	~65-80	~265-330	~20-30	~30-40	<5	~315-400	~5
	Cassava	~2-2	~2-3	~4-5							~1
	Wheat	~22-27	~16-20	~38-47							~13
	Cotton	~0.4-0.5	~1-1.2	~1-2							~0.3
	Horticulture	~5-6	~4-5	~9-11							~16
	Aquaculture	~1-1	~19-23	~20-24							~8
	Tree crops ¹	~14-17	~9-11	~23-28							~11
	Sahel Region ²	~6-7	~9-11	~15-18							~6
G. Savannah ³	~42-52	~26-32	~68-84	~23							
Total	~110-135	~90-110	~200-250	~65-80	~265-330	~20-30	~30-40	<5	~315-400	~85	

USD 315-400 billion over the next decade, or an average of \$32-40bn annually could unlock USD 85 billion of revenue annually from 2025

Mobilizing Funding to Address the Financing Gap

Current Funding for Agriculture Development in Africa vs. Requirements for Transformation, \$bn / year



AfDB and public sector partners will **crowd in private and institutional funding** by:

- Establishing **enabling environments** for private investment
- Employing **innovative de-risking tools and blended financing**
- **Proving the potential for risk-adjusted returns** in agriculture projects and agribusinesses

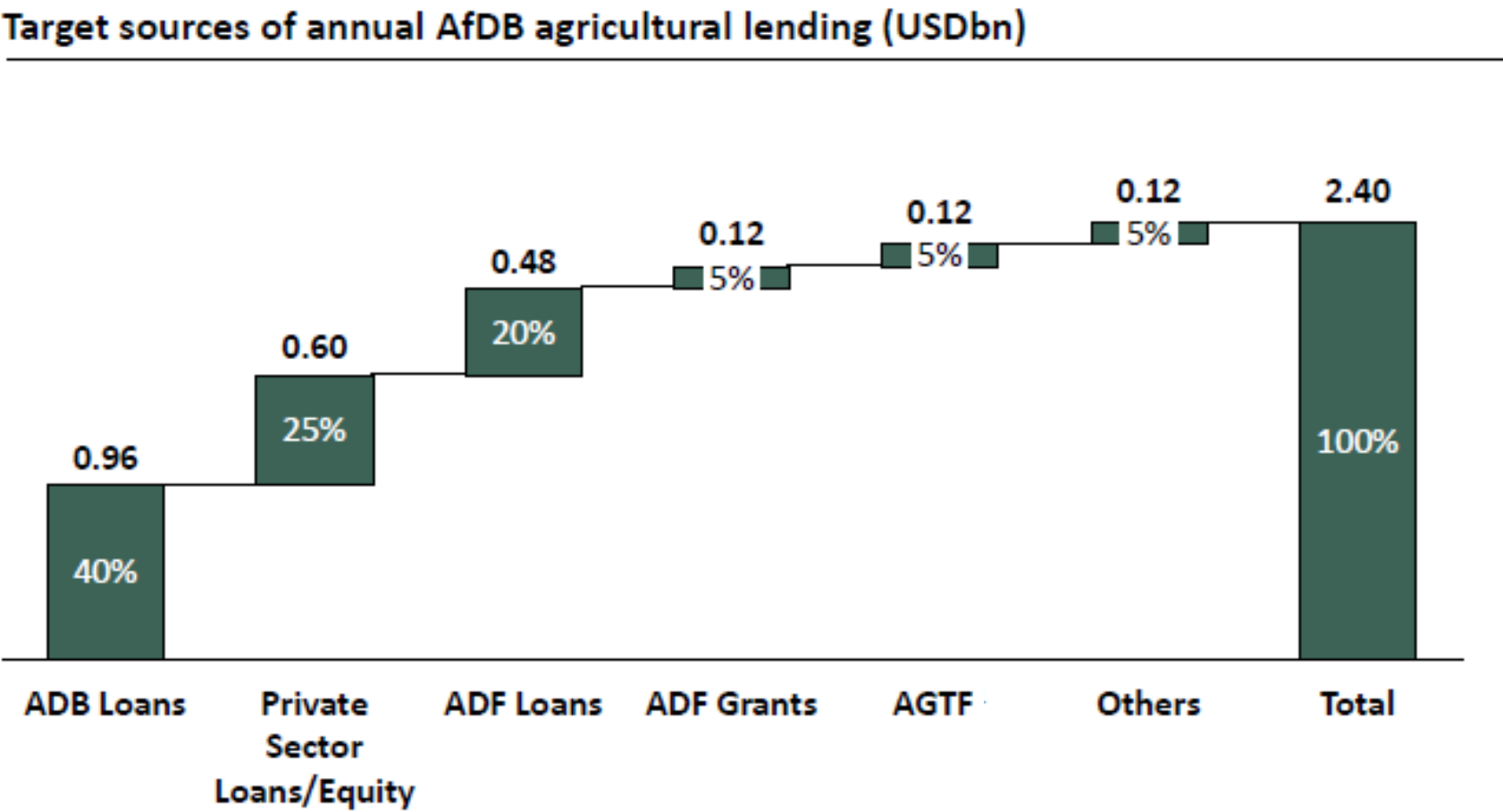
Sources for filling the gap include:

- **AfDB:** Increase annual lending to USD 2.4bn/year
- **Governments:** co-investment in increased AfDB lending (@10%) and raising budget allocation from average 3% to 5%
- **Commercial banks:** currently lending \$660m annually (4.8% of ~\$14bn); room to catalyze more
- **Sovereign wealth funds:** AUM of ~\$160bn
- **Pension funds:** AUM of \$380bn
- **Africa-weighted PE funds:** AUM of \$25-35bn

Currently, total investment finance is ~\$7bn annually

Leaving a funding gap of ~\$25-33bn

The Bank intends to increase agricultural lending to \$2.4bn annually (Including public and private)



OSAN already has a robust pipeline of requests for the upcoming years (US\$8,0 Billion)

Others:.. GEF, TSF, SRF, GAFSP

Source: OSAN.



IV. Key Flagship Initiatives

Technologies for African Agricultural Transformation

OBJECTIVE: The CGIAR Technologies for African Agricultural Transformation (TAAT) Clearinghouse led by IITA will raise farmer productivity and incomes by creating a repository of proven agricultural transformation technologies that are tailored for the African context and can be scaled beyond pilots through CGIAR and partner delivery mechanisms

Key components	Problems addressed	Lessons learned from comparable examples
<p>1</p> <p>Provide funding and strategic support to CGIAR to mobilize and scale up proven agricultural development technologies in eight priority intervention areas and key commodity value chains</p> <p>2</p> <p>FARA collaborates with the TAAT Clearinghouse to provide capacity building support</p>	<p>Delivery of technologies to end-beneficiaries varies widely across projects and CG centers.</p> <p>CGIAR has developed many high-potential technologies for Africa's agricultural transformation, but many farmers have not adopted them Transformation.</p> <ul style="list-style-type: none"> • (TAAT) has been appraised and will be submitted to Board approval early in 2017 subject to availability of resources from the regional operation window. • The Bank is working closely with about 13 CGIAR centers, FARA, OCP, AGRA etc. to develop this USD800 million operation which is expected to massively move improved technologies from the shelf to the farm where they are needed. • The Bank is also working with AFAP and AGRA on SME financing of input supply systems. • The Bank is supporting e-registration of farmers in Liberia, Benin and Togo. 	<ul style="list-style-type: none"> • Brazil's EMBRAPA (Brazilian Agricultural Research Corporation) scales technological innovations and best practices through its Embrapa Management System, via dozens of partnerships with both public institutions and private agribusiness companies • Thailand's National Science and Technology Development Agency (NSTDA) has a dedicated Technology Management Center (TMC) responsible for technology transfer and commercializing developed innovations; it bridges the lab-to-market gap through applied R&D, IP protection and licensing, spin-offs and joint ventures, and contract and joint R&D with private companies

Agropoles, Agro-Industrial processing zones and corridors

OBJECTIVE: Agro-processing zones concentrate resources and create an enabling environment within high potential areas providing aggregation, processing, market information, market linkages and SME linkages for farmers and agri-businesses

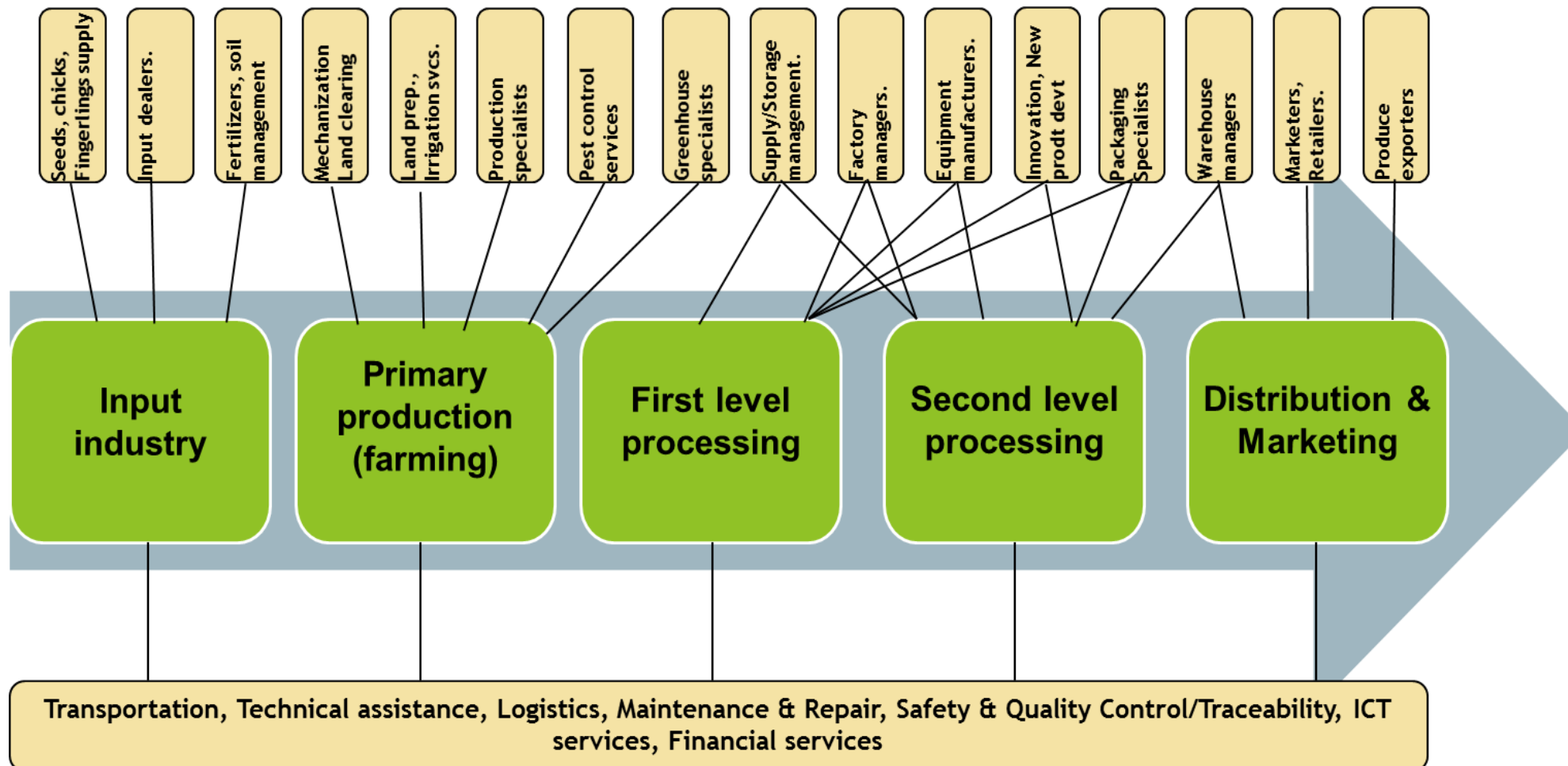
Key components	Problems addressed	Lessons learned from comparable examples
<ol style="list-style-type: none"> 1 Support zones in developing analysis and business /marketing plans to attract investors 2 Provide funding for infrastructure development within zones 3 Provide funding to support agribusiness engaged in expanding and strengthening supply networks 	<p>Infrastructure to support value addition is underdeveloped across the continent</p> <ul style="list-style-type: none"> • Africa imports a larger share of agricultural commodities than it exports, in terms of both primary products and total merchandise trade • Net trade deficit in agricultural products grew from USD35.4bn in 2014 to \$42.6bn in 2015 • Agribusiness activities outside of farming account for 38% of total value added across agricultural chains, compared to 78% globally demonstrating limited processing capacity on the continent . • OSAN is supporting Angola, Senegal, DRC, Burkina Faso, Cote d'Ivoire and Nigeria with design and financing of Agro-Industrial Zones or Agropoles. • The DRC Bukango Lunzo (USD100 million) is being prepared, as well as the Cote D'Ivoire Agropole (USD120 million). <p>These are intended to scale up massively the production, processing and marketing of given agricultural commodity value chains. Others include Gabon (UA150 million) and Ethiopia (UA125 million).</p>	<ul style="list-style-type: none"> • Rigorous analysis is needed to establish ideal zone location, profitable production mix and partners (e.g., Nigeria SCPZ and Lakaji Corridor studies) • Attract private sector investors by ensuring right market incentives • Professional and independent zone management through a central management center (e.g, SAGCOT's independent zone coordination center) • Government linkages to support policy and infrastructure development (e.g., Hawassa Processing Zone in Ethiopia) • African zones are relatively new to capture success, however Malaysian is an example of a country that has intensified processing, transitioning to the largest processed Palm Oil exporter

Source: World Energy Outlook 2011, Why has Africa become a net food importer FAO 2011"

The profile of agribusiness in Africa" Torben M. Roepstorff, Steve Wiggins \$ Anthony M. Hawkins

Agropoles, agro-industrial processing zones and corridors

Job Opportunities along the Agriculture Value Chain



Cases

Burkina Faso



Democratic Republic of Congo



Tunisia



Ethiopia



ENABLE Youth program

OBJECTIVE: The ENABLE Youth Program will increase youth participation in agriculture by providing business training, seed capital for youth-led agribusiness enterprises, mentorship, and placement in agribusiness companies. In partnership with IITA, Agribusiness Incubation Network, Unibrain, etc

Key components	Problems addressed	Lessons learned from comparable examples
<p>1</p> <p>Provide employer-driven agro-processing training and placement to urban youth (Agribusiness Support Program)</p>	<p>Youth unemployment rates across Africa are as high as 32%, with rural youth the hardest hit</p> <ul style="list-style-type: none">• 80% of rural youth are in vulnerable employment• This is nearly 20% higher than in urban areas <p>There are large human capital needs to further develop the agricultural sector, but existing education systems do not provide sufficient or appropriate programming to develop skilled agribusiness leaders</p> <ul style="list-style-type: none">• There is an apparent mismatch between vocational training offered in tertiary institutions and industry requirements• Lack of technical skills as well as engineering skills to efficiently operate processing equipment are cited as major challenges by CEOs of leading African agro-processors <p>Even with the necessary training, youth often lack access to capital to grow businesses; only 20% have bank accounts</p>	<ul style="list-style-type: none">• FARA-UniBRAIN learned that developing a large network of active business mentors and strong relationships between participants and mentors is important for the success of youth businesses after program graduation, as are advance commitments from employers to employ program cohorts after graduation• TechnoServe's STRYDE agribusiness project and MasterCard Foundation's Youth Forward initiative found that employer involvement in designing training programs ensures relevance and sustainability
<p>2</p> <p>Support RMC provision of capital and business training for vulnerable rural youth to launch ag. microenterprises (Rural Micro-enterprise Program)</p>		

ENABLE Youth: Agribusiness as a solution to empower and employ Africa's youth

Target

USD 15 billion to support enterprise and job creation for youths and women

Investing in **30 African countries***

1.50 million agribusiness jobs in the next 5 years

300,000 agribusiness enterprises to be created in Africa

10,000 unemployed graduates (50% women) trained and financially empowered in each country **

Intervention

CAPACITY AND SKILL BUILDING

18-month training incubation of young graduates as business men and women in agribusiness

ENTERPRISE AND BUSINESS DEVELOPMENT

Transformation into **creditworthy agripreneurs**

FINANCING

Crowd in private investment and commercial lending
Deploy risk sharing mechanisms

Need to leverage USD 0.5 billion per country

* Algeria, Benin, Burkina Faso, Burundi, Cameroon, Cote d'Ivoire, Democratic Republic of Congo, Eritrea, Ethiopia, Gabon, The Gambia, Ghana, Guinea Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Tunisia, Uganda and Zambia

** 37,000 for Nigeria



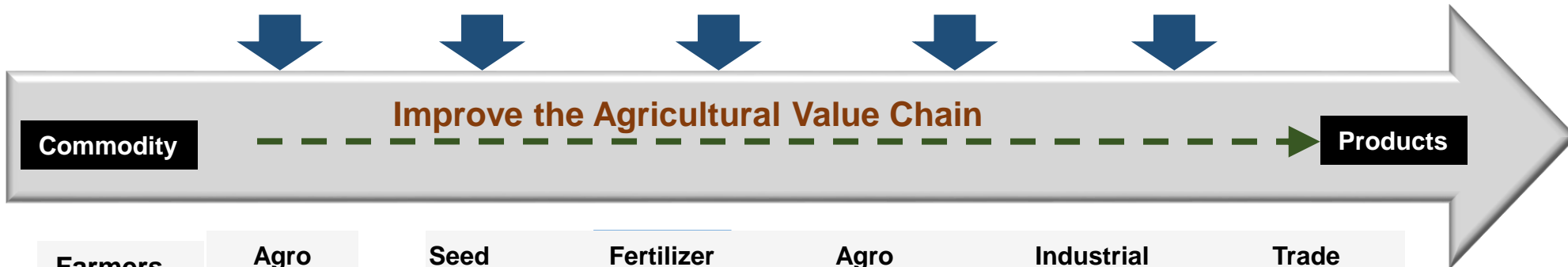
Agricultural Risks Sharing & Financing Mechanism

OBJECTIVE: The Agricultural Risks Sharing & Mechanism will achieve increased bank lending to SMEs through de-risking credit activities and attracting new capital to the sector.

Key components	Problems addressed	Lessons Learned
<ol style="list-style-type: none"> 1 Reduce risks for Commercial Banks 2 Leverage excess liquidity into Agriculture. 3 Build Agricultural Capacity of Banks 4 Increasing outreach of banks into rural areas 5 and ensure a systematic change in agricultural lending 	<p>Current risk-adjusted returns to capital are too low to justify investment in the sector when other opportunities exist</p> <ul style="list-style-type: none"> • Major commercial banks only loan 1-5% of their portfolio to agriculture • Prohibitively expensive interest rates (15-25%) for agriculture reflect high transaction costs, lack of sector expertise, risk exposure • The Bank will support countries with PPF or MIC grants to design and set up country instruments. Requests have so far been received or expected from Uganda, Rwanda, Liberia Sierra Leone, Rwanda, Kenya, DRC and Cameroon. • A new Department of Agricultural Finance is being set up to create necessary instruments for mobilizing resources for agricultural investment. • Instruments will be created for leveraging resources from Sovereign Wealth Funds, Pension Funds, and setting up Diaspora bonds. 	<p>Previous risk-sharing initiatives in Japan, the US, and India have produced lessons about:</p> <ul style="list-style-type: none"> • Structuring of incentives to avoid moral hazard risk by banks or borrowers of originating excessive low-quality loans <p>Successful initiatives such as NIRSAL in Nigeria and FIRA in Mexico illustrate the importance of:</p> <ul style="list-style-type: none"> • Partnerships with credible state institutions • Stakeholder inclusion to align credit guarantee offer with private sector needs

Risk sharing mechanism for increased agriculture finance

Public Goods support:
Roads, Irrigation, R&D, Storage, Price Stabilization, etc.



Farmers Agro Dealers Seed companies Fertilizer companies Agro processors Industrial manufacturers Trade and exports



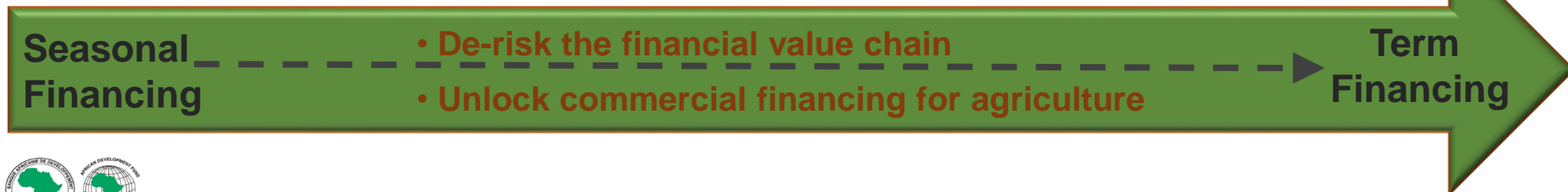
Appropriate Risk Sharing Instruments along the Agricultural Value Chain

Guarantees

Interest rebates

Insurance

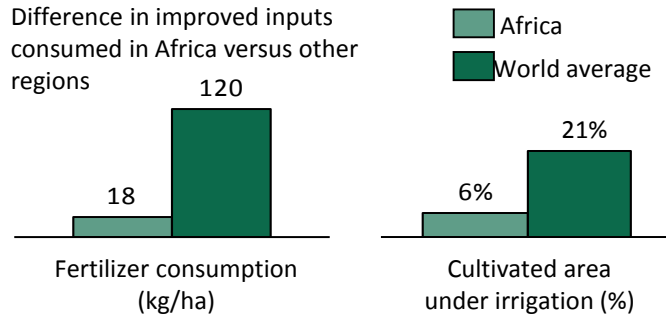
Technical Assistance



- AFDB to support RMCs to setup RSF
- RSF to leverage up to 10x
- Systemic change in bank financing for agriculture
- Finance for growth of Agribusiness
- Financing agriculture as a business/ENABLE Youth

Agro-Inputs Network Development / Input Finance

OBJECTIVE: The Agro-Inputs Network Development Facility will raise farmer productivity by increasing financing to large-scale domestic inputs producers, expanding market access for smallholders, and supporting policy reform for greater inputs access.

Key components	Problems addressed	Lessons learned from comparable examples									
<ol style="list-style-type: none"> 1. Provide project finance for large-scale domestic input production and irrigation equipment manufacturing 2. On-lend to input distribution and retail SMEs through microfinance institutions 3. Procurement platform partners work with AfDB to facilitate expanded market access 4. Partners (e.g. AFAP, FAO) work with AfDB to support policy reform and usage data collection 	<p>Average yields in Africa are low compared to other regions of the world</p> <ul style="list-style-type: none"> • Farmers lack access to high quality, appropriate types, and sufficient quantities of seed, fertilizer, and irrigation equipment • African farmers could increase yields by 3-4X for most crops by using more improved inputs and changing management practices <p>Africa spends heavily to import inputs it does use</p> <ul style="list-style-type: none"> • Net importer of fertilizers (excl. phosphate) and pesticides • Pays more than other regions on per-unit basis  <p>Difference in improved inputs consumed in Africa versus other regions</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Africa</th> <th>World average</th> </tr> </thead> <tbody> <tr> <td>Fertilizer consumption (kg/ha)</td> <td>18</td> <td>120</td> </tr> <tr> <td>Cultivated area under irrigation (%)</td> <td>6%</td> <td>21%</td> </tr> </tbody> </table>	Category	Africa	World average	Fertilizer consumption (kg/ha)	18	120	Cultivated area under irrigation (%)	6%	21%	<ul style="list-style-type: none"> • The FMO-IDH Smallholder Finance Facility (SFF) found that farmers are more willing to use inputs if they have market access, and that farmers need to see the benefits of improved inputs before buying • The difficulty in capitalizing AfDB African Fertilizer Financing Mechanism (AFFM) shows that the private sector should be targeted for co-investment rather than RMC governments • PAMIGA's¹ Water and Micro-finance Initiative (WMI) offers micro-irrigation lending and training for both farmers and loan officers, and tailored, longer-tenor loans; PAMIGA recently created a facility with OPIC and Calvert to expand the program
Category	Africa	World average									
Fertilizer consumption (kg/ha)	18	120									
Cultivated area under irrigation (%)	6%	21%									

Notes: (1) PAMIGA is the Participatory Microfinance Group for Africa, a consortium of microfinance institutions from across the continent.

Source: World Bank, 2013; Global Yield Gap Atlas; Williamson et al. 2008; FAOstat, 2013 data; PAMIGA WMI; [OPIC press release, 2015](#).

On-Farm Capex Hiring and Investment Support Mechanism

OBJECTIVE: The African Mechanization Program will raise farmer incomes by allowing farmers to lease mechanized equipment for more efficient production.

Key components	Problems addressed	Lessons learned from comparable examples
<div>1</div> <div>Support select RMCs to create Agricultural Equipment Hiring Enterprises (AEHEs)</div>	<p>Africa is not reaping the potential efficiency benefits of mechanization</p> <ul style="list-style-type: none">• Farmers often lack labor to plant larger fields in time for rains, and thus have lower production• African farmers have 10 times fewer mechanized implements per farm area than farmers in other developing regions, and access has not grown as quickly as in other regions <p>Many African farmers are unable to pay the upfront cost of mechanized equipment</p>	<ul style="list-style-type: none">• Nigeria's Agricultural Equipment Hiring Enterprises (AEHEs) experimented with two models: distribution and leasing through the ag. ministry, or through a decentralized SME network; the former requires high government capacity• BNDES FINAME Agricola's longer-tenure and lower-interest loans are a strong incentive for Brazilian farmers to consider leasing equip.• John Deere has distribution networks in E, S, and W Africa; it is launching a first loss guarantee to enable mech. equip. adoption via lower monthly farmer payments• Farmers prefer to be able to eventually own their own assets, such as through Rent-to-Own

<div>2</div> <div>Partners (e.g. FAO, UNIDO) work to provide technical assistance to AEHEs</div>	
<div>3</div> <div>Provide concessional debt to be on-lent for equipment hiring and purchase via commercial banks</div>	
<div>4</div> <div>FAO and other partners collaborate to create a robust knowledge base and collect data on mech. access</div>	

<p>Value of agricultural machinery stock by region (2005 USD \$M)</p> <table><thead><tr><th>Year</th><th>East Asia</th><th>South America</th><th>Africa</th></tr></thead><tbody><tr><td>1987</td><td>280,000</td><td>50,000</td><td>20,000</td></tr><tr><td>1991</td><td>300,000</td><td>60,000</td><td>30,000</td></tr><tr><td>1995</td><td>300,000</td><td>60,000</td><td>30,000</td></tr><tr><td>1999</td><td>300,000</td><td>60,000</td><td>30,000</td></tr><tr><td>2003</td><td>300,000</td><td>60,000</td><td>30,000</td></tr><tr><td>2007</td><td>320,000</td><td>60,000</td><td>30,000</td></tr></tbody></table>		Year	East Asia	South America	Africa	1987	280,000	50,000	20,000	1991	300,000	60,000	30,000	1995	300,000	60,000	30,000	1999	300,000	60,000	30,000	2003	300,000	60,000	30,000	2007	320,000	60,000	30,000
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On-Farm and Post-Harvest Waste and Loss

OBJECTIVE: The Post-Harvest Loss Prevention Facility will raise farmer incomes by making post-harvest loss (PHL) technologies more readily available through growth capital investments in suppliers, and on-lending for farmer leasing.

Key components	Problems addressed	Lessons learned from comparable examples														
<div>1</div> <div>Create a blended finance vehicle to crowd in growth capital investment for PHL technologies</div>	<p>Post-harvest losses (PHL) in Africa are equivalent to the annual caloric requirement of 48M people, and worth USD \$4B in lost revenue</p> <ul style="list-style-type: none">• Cereal losses are 21% of production, while fruit, vegetable, root, and tuber losses are >50%, with the greatest losses at handling, storage, processing, and packaging stages• PHL prevention technologies are typically too expensive for smallholders or are not marketed and sold in remote rural areas <div><div><div>Agricultural production</div><div>Postharvest handling & storage</div><div>Processing & packaging</div><div>Distribution</div><div>Consumption</div></div><div>Share of total weight lost across commodities in sub-Saharan Africa</div><div><table><tr><td>Cereals</td><td>Milk</td><td>Meat</td><td>Oilseeds & pulses</td><td>Fish & seafood</td><td>Roots & tubers</td><td>Fruits & vegetables</td></tr><tr><td>21%</td><td>27%</td><td>30%</td><td>31%</td><td>38%</td><td>54%</td><td>66%</td></tr></table></div></div>	Cereals	Milk	Meat	Oilseeds & pulses	Fish & seafood	Roots & tubers	Fruits & vegetables	21%	27%	30%	31%	38%	54%	66%	<ul style="list-style-type: none">• Many PHL solutions exist and can be locally manufactured, but are not yet reaching farmers at scale. Mahaseel Agricultural Investment Fund and Anterra Capital are venture and private equity funds providing growth capital to storage and processing companies• Farmers need to have sufficient incentives, such as market access, to be able to benefit from and pay for PHL technologies; AgResults found that paying farmer aggregators bonuses for higher-quality maize improved uptake
Cereals	Milk	Meat	Oilseeds & pulses	Fish & seafood	Roots & tubers	Fruits & vegetables										
21%	27%	30%	31%	38%	54%	66%										

Warehouse Receipt Models Replication

OBJECTIVE: Warehouse receipt systems allow farmers who store their produce in licensed warehouses and issues them warehouse receipt which acts as an asset for sale or use as collateral for loans

Key components	Problems addressed	Lessons learned from comparable examples
<p>1</p> <p>Provide funding for warehouse infrastructure development</p>	<p>In absence of adequate storage, farmers are losing profits from selling produce right after harvest</p> <ul style="list-style-type: none"> Prices are usually lower during harvest season Farmers can almost double the income from their produce in the off-season¹ <p>Non- transferability of harvest to commercial uses and particularly security to access loan</p> <ul style="list-style-type: none"> Farmers can increase their margins by ~30%² using inventory finance to meet annual contractual requirements <p>Lack of warehouse receipt systems limit the potential success of budding African commodity exchanges</p> <ul style="list-style-type: none"> Commodity exchanges identify the lack the consistent supply³ of quality commodities as the biggest challenge to scaling 	<ul style="list-style-type: none"> Adequate storage facilities with staff who are well trained to facilitate consistent quality and quantity measuring (e.g., Ethiopia warehouse receipts financing initiative which feeds into the Ethiopian Commodity Exchange as well as with the Tanzania Warehouse Licensing Board) Strong legal framework allowing for enforcement of contracts e.g., Rwanda Warehouse Receipt System and Ethiopia Commodity Exchange Reliable flow of market information to facilitate price discovery, ensuring farmers get the full benefit of the receipt system e.g., East Africa Grain Council Warehouse receipts system
<p>2</p> <p>Provide technical advisory towards setting up and managing a warehouse receipt systems</p>		
<p>3</p> <p>Provide funding to support the training of warehouse staff to ensure quantity and quality standards</p>		

1. Tanzania – IFAD Agricultural Marketing Systems Development Programme. 2. Ghana - Onumah and Aning (2009) - Margins per tonne of maize sold increased from 5.1% to over 35.1% “Feasibility study towards establishment of commodity exchange in Ghana”. 3. EAX, ACE, ASCE

Sovereign Insurance

OBJECTIVE: Africa Risk Insurance will improve country resilience to agro-climactic shocks by building a continent-wide sovereign insurance solution.

Key components	Problems addressed	Lessons learned from comparable examples
<div>1</div> <div>Provide re-insurance for Africa Risk Capacity's risk pool</div>	<p>Agro-climactic shocks are a serious threat to smallholder farmers, economic productivity, and government budgets</p> <ul style="list-style-type: none">• Rainfall fluctuations threaten agriculture, particularly the 98% of farmers reliant on rain-fed agriculture for food security and incomes <p>Action is required in the near-term as rainfall fluctuations from El Niño threatens 29 million people with food insecurity in Southern Africa and several tens of millions more in Eastern Africa</p> <p>Rapid government response to drought via cash transfers and food mobilization saves lives and money</p> <ul style="list-style-type: none">• Investments in rapid response through the ARC yield a return of \$4.40 to affected households for every \$1 invested• Estimated need of \$14-17 billion per year for African countries to adapt to an approximately 2°C warmer climate forecast	<p>Existing efforts by the World Bank to build disaster resilience with a facility and insurance approach, such as the Global Facility for Disaster Reduction and Recovery and Pacific Catastrophe Risk Insurance Pilot focus on:</p> <ul style="list-style-type: none">• Development of government capacities to carry out contingency plans• Accountable oversight of investments in public infrastructure and disbursements• Rapid transfer of cash and essential goods to affected areas leveraging existing systems, actors, and relevant technologies• International cooperation between member governments

Infrastructure Finance

OBJECTIVE: The Agricultural Project Finance Facility will catalyze financing for the build-out of agricultural infrastructure in support of the Agricultural Transformation Agenda by providing co-funding and project development assistance to value chain projects.

Key components	Problems addressed	Lessons learned from comparable examples
<div>1</div> <div>Provide project co-financing facilities for large-ticket agricultural infrastructure PPPs in line with the ATA</div> <div>2</div> <div>Build a project development and technical assistance facility that can support nearly-bankable projects to access finance from other FIs</div>	<p>There is a \$48B gap in overall infrastructure financing across continent</p> <ul style="list-style-type: none">• Despite large infrastructure gap in Africa, project finance in the continent only accounts for 3% of the global figure• Moreover, 70% of current project finance occurs in four countries (Nigeria, Ghana, South Africa, Angola), highlighting national inequalities in access to finance <p>More specifically, agriculture-related infrastructure is marginalized in Africa project finance relative to global proportions</p> <ul style="list-style-type: none">• Over 64% of project finance in Africa from 2003 to 2013 went into extractive sectors, far higher than global average of ~27%• While roads and transportation represented ~22% of global project finance, their allocation in Africa was negligible• PPPs represented only 1% of Africa project finance	<p>The Bank's previous experience, including the Emerging Africa Infrastructure Fund, highlights:</p> <ul style="list-style-type: none">• Collaboration with banks to develop robust partnerships for co-financing and project support• Portfolio diversification by value chain and region• Need for window for project development technical assistance <p>Other project finance initiatives, including CIF's Clean Technology Fund, note the need for:</p> <ul style="list-style-type: none">• Opportunistic collaboration with MNCs and governments to support nationally relevant PPPs and integrating projects with private sector needs

Trade Finance

OBJECTIVE: The African Agriculture Trade Finance Facility will facilitate trade and improve global competitiveness of African agricultural exporters by providing access to finance for banks and export aggregators.

Key components	Problems addressed	Lessons learned from comparable examples
<ol style="list-style-type: none">1 Provide trade financing and guarantees for commodity aggregators and exporters2 Provide dedicated credit and risk-sharing agreements for banks providing trade finance3 Support technical assistance and capacity-building for trade to exporters and banks	<p>Trade finance is extremely difficult to access for interested actors</p> <ul style="list-style-type: none">• Interest rates on trade loans surpass 10% in a third of all African countries• Cash collateral requirements for loans frequently reach up to 50%• Business model needs to be proved to get international financial institutions to expand trade finance operations in Africa <p>Unmet demand for bank-intermediated trade finance is ~\$115B</p> <ul style="list-style-type: none">• Unmet demand is higher in low-income countries than in middle-income countries – the same countries that suffer the largest food trade deficits• Current supply of trade finance is \$350B• Major constraints to banks include limited dollar liquidity and insufficient limits with confirming banks	<p>The experience of actors including AfDB as well as IFC and its trade programs (Global Trade Finance Program; Global Trade Liquidity Program; Global Trade Supplier Finance; Structured Trade Commodity Finance) show need for:</p> <ul style="list-style-type: none">• Engagement with commercial banks and other financial institutions in and outside of the continent• Leveraging bank name to draw in outside finance and brand beneficiaries• Balance between short-term commercial viability and long-term impact of projects• Strategic and coordinated support for value chain promotion

Farmer E-Registration

OBJECTIVE: The African E-Payments Platform for Input Distribution will raise farmer productivity and incomes by helping countries create databases of their farmers and thereby directly distribute input vouchers and other vital services to farmers through mobile payments systems.

Key components	Problems addressed	Lessons learned from comparable examples
<p>1</p> <p>Support RMCs to create electronic databases to register farmers</p>	<p>Most government support for farmer inputs does not reach smallholder farmers</p> <ul style="list-style-type: none">• In Nigeria, only 11% of government fertilizer subsidies reached farmers before the government switched to an e-payments platform <p>Advances in value chain financing for inputs and other services, such as warehouse receipt-linked loans, have only reached 7% of smallholders, continuing to leave farmers liquidity-constrained</p> <p>Access to formal financial institutions remains low in Africa, but e-payments platforms are expanding and often replacing formal accounts</p> <ul style="list-style-type: none">• Virtually all African countries now have at least two mobile money services, with 17 countries hosting ag.-specific mobile money services• 38% of Africans had a mobile account in 2014, with 23% of mobile connections linked to mobile money; however, mobile connectivity remains low in rural areas, limiting growth	<ul style="list-style-type: none">• Nigerian ag. ministry's (FMARD) biometric e-registration system has registered 15M farmers and partnered with Cellulant, an e-payments provider, to send farmers fertilizer subsidies directly• The World Food Programme (WFP) and Grow Africa's Patient Procurement Program is piloting an e-payments system for staple crop farmers in East Africa, which evolved from WFP's Cash for Assets pilot in Kenya• One Acre Fund found that farmers are not well-served by traditional MFI products; it's now piloting more flexible input repayment options in Kenya to improve repayment rates, in partnership with Safaricom/M-PESA
<p>2</p> <p>Support RMCs to channel input subsidies and other farmer support through e-payments systems for farmers registered in RMC databases</p>		
<p>3</p> <p>Provide concessional loans to e-payments providers to acquire first wave of users in a market, to finance marketing and adoption incentives</p>		

Agricultural SME Finance Capacity-Building

OBJECTIVE: The Bank's Agricultural SME Finance Capacity-Building initiative will build long-term sector capacity and support the development of innovative SME financing vehicles by funding a variety of non-bank financial institutions and ecosystem actors.

Key components	Problems addressed	Lessons learned from comparable examples
<ol style="list-style-type: none"> 1 Finance and advise private-sector led PE, VC, and working capital facilities and funds for SMEs 2 Finance and advise governments to administer effective public SME funds and agencies 3 Finance and advise SME finance infrastructure actors such as credit registries, data systems providers, and financial intermediaries 	<p>Gap in credit for smallholder finance in Africa of \$50B</p> <ul style="list-style-type: none"> Banks have failed to fill gap, with only 16.6% deposit institution penetration across the continent, indicating that the majority of SMEs are failing to access formal finance <p>While there is a long-term opportunity for non-banking financial institutions to address part of this gap, many lack either the capacity to do so or a proven track record</p> <ul style="list-style-type: none"> Agricultural private equity funds like FAFIN and other innovative finance models are still building out their track record and proving the business model Public institutions can provide near-term capital infusion to SMEs <p>Moreover, the ecosystem is not conducive to SME finance</p> <ul style="list-style-type: none"> Credit assessment and data service providers are still at a nascent stage 	<p>Lessons from existing SME funds (African Agricultural Capital Fund, Fund for Agricultural Finance in Nigeria, Africa Agriculture and Trade Investment Fund) include:</p> <ul style="list-style-type: none"> Professional and independent management of funds Provision of pipeline development support for NBFIs Diversification of funding away from public investors <p>Public ventures in SME support, such as Nigeria's CBN SME-dedicated credit demonstrate:</p> <ul style="list-style-type: none"> Importance of addressing current market failures and short-term need for capital with public instruments and FI support

Affirmative Financing Action for Women in Africa (AFAWA)

OBJECTIVE: Affirmative Financing Action for Women (AFAWA) will raise women's incomes by increasing their access to credit to grow agribusinesses.

Key components

1

Create and manages a USD \$300M de-risking facility to leverage \$3 billion catalyze greater lending for women-owned agribusinesses

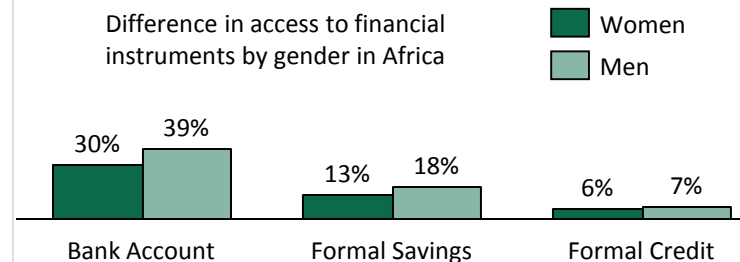
Problems addressed

Many of the problems faced by all farmers have a disproportional effect on women

- African women farmers make up 60% of agricultural labor but have 20-30% lower yields and see lower incomes from farming
- Women are disproportionately exposed to climate change and other risks; 48% to 73% of African women farmers will be affected by climate impacts to their crops

More generally, women also face higher barriers to accessing finance

- 70% of African women are financially excluded,
- Financing gap for African women is USD \$20B



Lessons learned from comparable examples

- The Women's Microfinance Initiative (WMI) offers business training and collateral-free loans to women, recognizing that women typically lack land tenure; it also partners with local banks to graduate successful borrowers to formal banking after 24 months, and continues to provide business support for a fee. It was able to increase the number of households with \$60 in annual savings by 600% in Uganda, and by 400% in Kenya
- Root Capital's Women in Agriculture Initiative (WAI) lends to 'gender-inclusive businesses,' providing financial, internal credit, and mobile advisory services; 29% of its clients are women-led

Climate Resilience

OBJECTIVE: The Climate Resilience Fund for Agriculture will raise farmer productivity and incomes by investing in funds and projects that have already displayed success in improving farmer resilience to climate shocks and land degradation.

Key components	Problems addressed	Lessons learned from comparable examples
<p>1</p> <p>Create a blended finance vehicle to scale successful sustainable agriculture projects, as well as agroforestry, ecotourism, and agri-tourism projects</p>	<p>Effects of climate change on agriculture could cost African regions up to 7% of GDP by 2100</p> <ul style="list-style-type: none">• 67% of Africa's land area has become or is becoming highly degraded• Major African staple crops are expected to have 8%-22% lower yields by 2050• African farmers are susceptible to increased fluctuations in rainfall and temperature due to climate change. <p>On climate financing and support for climate smart agriculture, working with ONEC, the Bank continues development of Investment Plans under the SREP in Benin, Lesotho, Madagascar, Malawi, Sierra Leone and Zambia.</p> <ul style="list-style-type: none">• The Bank is supporting these countries to access highly concessional financing envelope up to USD50 million to develop transformational renewable energy operations.• GEF resources will continue to be leveraged in areas of climate change mitigation and land degradation.	<ul style="list-style-type: none">• Livelihoods Fund for Family Farming (Livelihoods 3F) and the Moringa Fund both focus on off-take and certification partnerships to help ensure profitability and returns, while AfDB Congo Basin Forest Fund (CBFF) saw market access to be a key ingredient for uptake of good practices• CBFF also found that scaling up successful sustainable agriculture pilots requires fund lengths beyond ten years• Stafford Capital Partners, Althelia Climate Fund, and BioCarbon Fund Initiative for Sustainable Forest Landscapes form partnerships with trusted implementers both geographically broad and high-touch, with high-quality extension

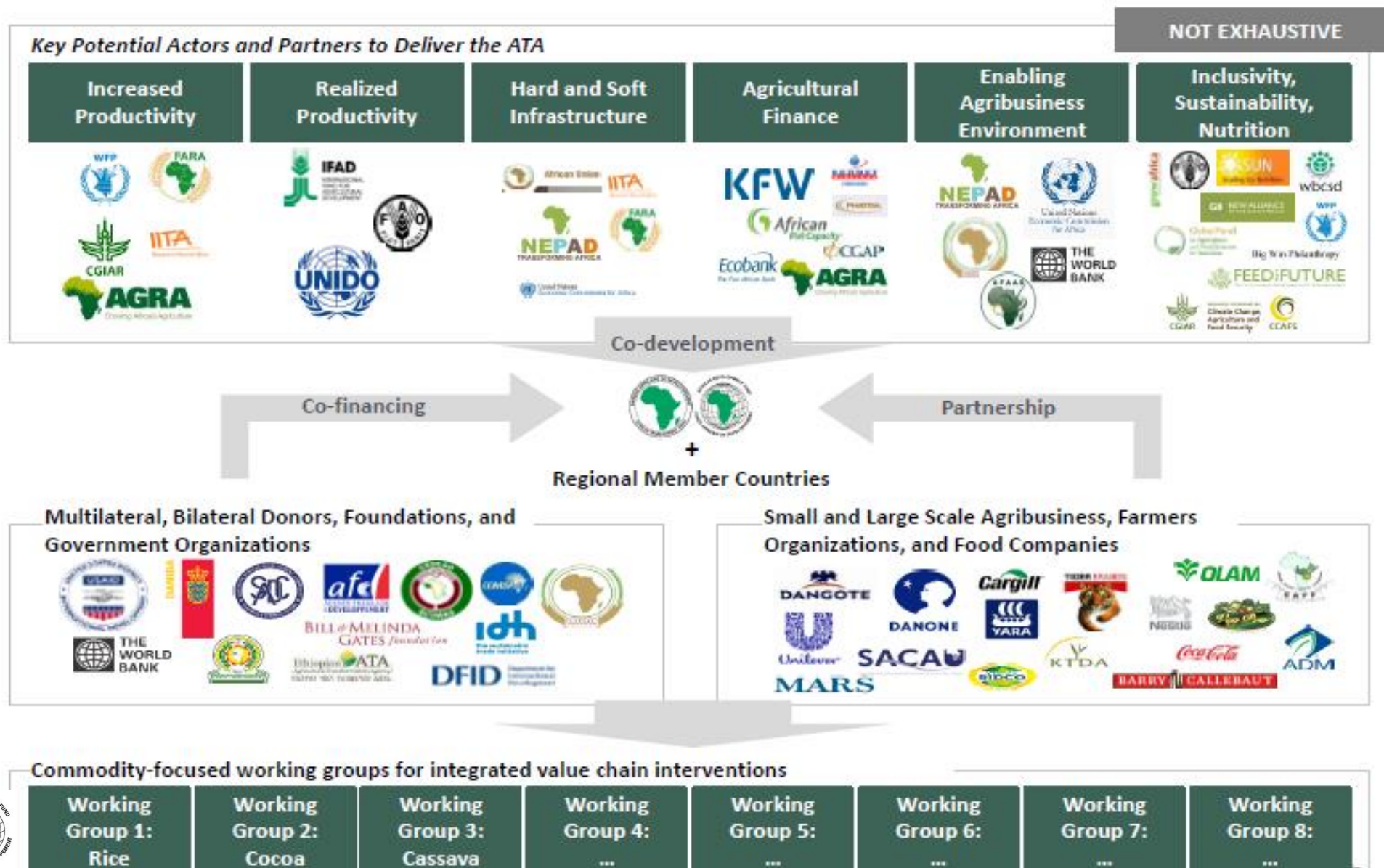
AFRICAN NUTRITION TRUST FUND

OBJECTIVE: The African Nutrition Trust Fund will improve food security and prevent malnutrition by increasing support for community led nutrition programs in high need countries.

Key components	Problems addressed	Priority Areas
<div>1</div> <p>Manage a trust fund to invest in community nutrition programs and country capacity building in select countries</p>	<p>Malnutrition across Africa has significant health and economic consequences</p> <ul style="list-style-type: none">• Malnutrition costs Africa USD \$25B and 11% of GNP every year• Africa is the only major world region that saw an increase in the number of stunted children in the past decade• 36% of African children under 5 years are stunted due to nutrient deficiencies, and 18% are underweight, with particularly poor nutrition in West Africa (22% of children underweight)• Poor access to nutritional foods for pregnant women and young children leaves 4 of every 10 African children with underdeveloped brains, and lower cognitive abilities as a result	<ul style="list-style-type: none">➤ Governance and leadership in the nutrition sector➤ Capacity building and skills development for nutrition➤ Regional harmonization of nutrition curricula, norms and standards for food fortification➤ Support to agro food processing for highly nutritious food (supplementary, complementary and therapeutic food) and;➤ Ensuring the agriculture projects are nutrition sensitive
<div>2</div> <p>Partners such as GAIN, SUN, and the John Kufuor Foundation provide technical support</p>	<p>Nutrition interventions are often under-funded and insufficiently integrated between health and agriculture programs</p> <ul style="list-style-type: none">• Nutrition receives 1.4% of the development aid amount required to reach global nutrition goals	
<div>3</div> <p>Secretariat housed at the AfDB</p> <ul style="list-style-type: none">• Oversight committee: representatives of donors to the Trust Fund. Potential donors - Micronutrient Initiative, Bill and Melinda Gates Foundation, Dangote Foundation and others.• Technical review committee		

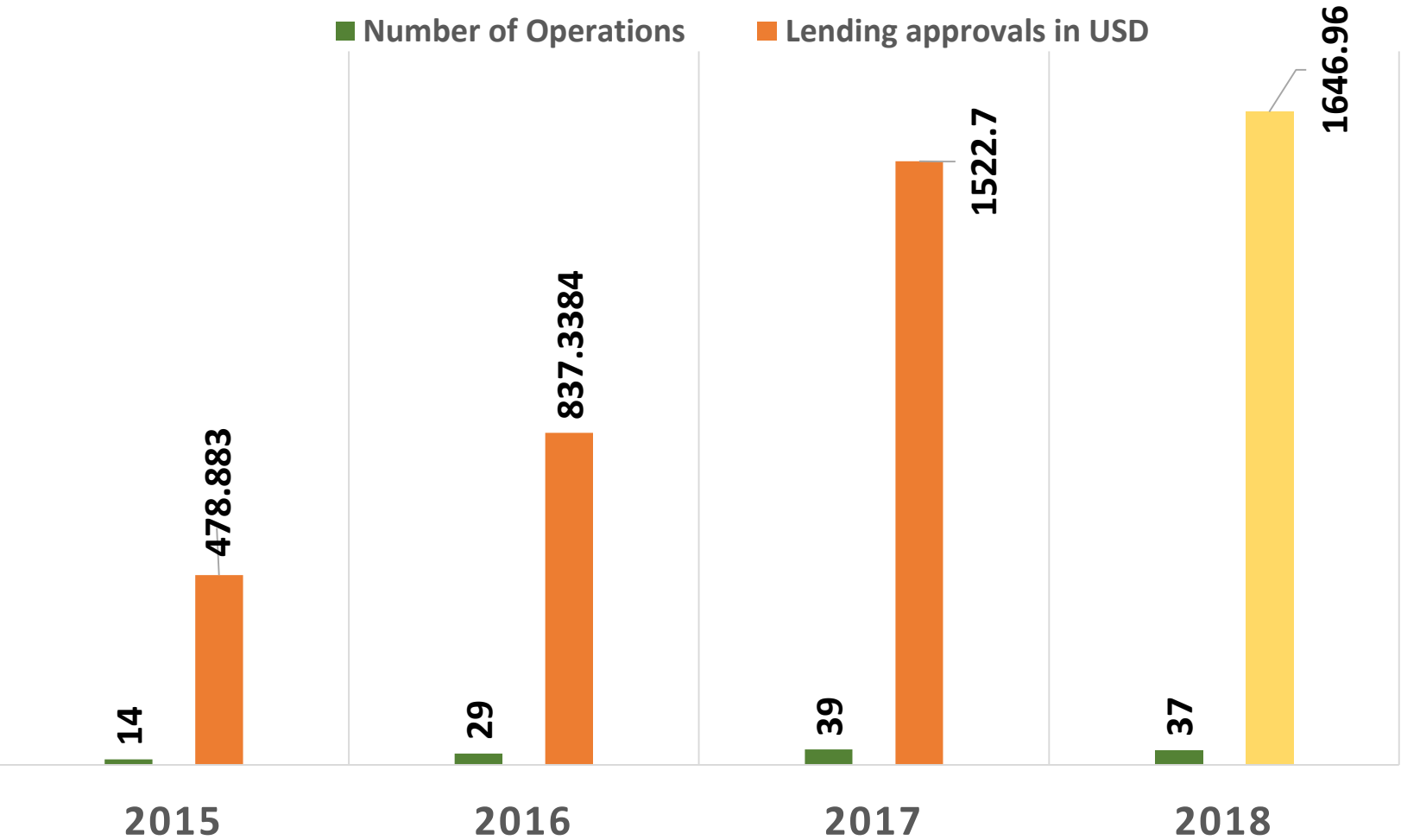
V. Collaborations and partnerships.

Achieving agricultural transformation in Africa will require strong partnerships and collaboration



VI. Pipeline Projects.

GROWTH IN OPERATIONS OVER THE MEDIUM-TERM



*39 operations in 2017
including 2 NSOs

KENYA: SMALLSCALE IRRIGATION & AGRIC VALUE CHAIN DEV PROJECT

Description

- The broad objective of SIVAP is to contribute to poverty reduction by enhancing agricultural productivity and income, and food security among beneficiaries of 11 counties in Kenya.-Kitui, Makueni, Machakos, Tana River, Bomet, Meru, Tharaka Nithi, Nyandarua, Murang'a, Kajiado and Nyeri
- The project has four components namely:Component 1- Enhanced Irrigation Infrastructure and Water Resources Development: Component 2- Improved Access to Markets and Strengthening Value Chains, Component 3- Institutional Strengthening and Capacity Development and Component 4-Project Coordination and Management

Financing

- Project cost is estimated at USD 63.55 million
- To be financed by ADF loan of USD 39.55 million
- GAFSP Grant of USD 24 million.

Timeframe

- Approved Nov 2015
- Signed Feb 2016
- On going till 30 June 2021

KENYA: ENABLE YOUTH PROGRAM

Description

- The main objective of this program is to create gainful employment, generate income for the youth and bridge succession gap in agriculture and agribusiness ventures.
- The program has the following four components :Component 1: Capacity Building and Skills Development of the Youths, Component 2: Enterprise and Business Development Services ,Component 3: Youth Networking and Empowerment Component 4: Programme Management and Coordination

Financing

- Project cost is estimated at USD 30.0 million
- To be financed by ADF loan of USD 30.0 million

Timeframe

- Appraised June 2017
- Board Presentation Nov 2017

SELECTED PIPELINE PROJECTS IN KENYA

- **Kocholia Irrigation Development and Watershed Management Project-USD 19 million**
- **Green Zones Development Project –Phase 2: USD 40 million**
- **Kimira-Oluch Smallholder Farm Improvement Project- Phase 2-USD 35 million**
- **Total ADF-14 pipeline allocation for Kenya: USD 84.0 million (UA 60.258 million)**

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