Ethiopian Agriculture and Strategies for Growth

Presented to Ethiopia - Norway Agribusiness Seminar

November 2017
Presentation overview

1. Ethiopia’s economy and the role of the agriculture sector
2. Frameworks, strategies, and plans for agricultural development
3. Flagship initiatives and accomplishments within Ethiopian agriculture
Ethiopia’s economy and the role of the agriculture sector
Ethiopia’s average economic growth of ~10% per annum makes it the fastest growing African economy

Agriculture has always dominated the economy, but manufacturing, construction, and tourism and hospitality are growing quickly.

Manufacturing of leather and textiles has grown exponentially in recent years.

- Garment and apparel industry grew ~51% over 6 years.²

Export of fruits, vegetables, and flowers is thriving.

- Horticulture is 5th highest foreign revenue earner, generating $245 million in 2013/14.³

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3 Sources: Ethiopian Horticulture Producers & Exporters Association (EHPEA); EIC database of licensed projects; Embassy of Ethiopia in China; All Africa “Ethiopia: Revenue of Horticulture Export Increasing”, 26 December 2013. Textile Market Growing”, December 2012; EIC database of licensed project.
The Ethiopian Government’s efforts for growth include four main approaches

Three successive Growth and Transformation Plans (GTPs, of which the second is underway)

Heavy investment in critical sectors, like education, health, water, transportation, and telecommunications.

✓ Consequently, Ethiopia has done well on the Millennium Development Goals: share of population living below poverty line fell from 44% in 2000, to 30% in 2010, and to 23.4% by 2015.¹ The country also met and exceeded several of its maternal and child health goals.

Favorable investment climate

✓ Ethiopia has the 2nd largest labor force in Africa with 50 million workers.²
✓ With a population of 99 million people and a rapidly growing middle class, Ethiopia is the 2nd largest market in Africa, and is also part of the Common Market for Eastern and Southern Africa (COMESA) comprising 19 member countries and over 400 million people.

Emphasis on agriculture as the driver of economic growth.

✓ Agriculture is the backbone of Ethiopia’s economy, accounting for 42% of GDP and nearly 80% of employment.³

¹ Source: National Planning Commission, 2015
Ethiopia is now one of the top five highest earners of FDI in Africa, with a growth of 46% in 2017.

Rapid economic growth, better infrastructure, expanding markets and government’s openness to FDI contribute to high profile investors targeting Ethiopia.

The impressive domestic and FDI performance in recent years started from very low track record.
- From 2009 to 2013, domestic savings grew with tremendous boost to GDP from 5.2% to 17.7%. However, the investment gap remained wide.
- FDI inflows between 2005-2010 showed limited increase, accounting among the lowest share in Sub-Saharan Africa.

Growth forecasts of more than 7% from the International Monetary Fund and the African Development Bank place Ethiopia among the world’s growth leaders over the medium term.


Agriculture is the leading economic sector, with ~7% annual growth over the last 10 years, while industry is growing at ~21% and services at ~12%.

### Agriculture contributes to ~40% of GDP...

<table>
<thead>
<tr>
<th>GDP</th>
<th>In Current USD Bn, As of 2014 Q3</th>
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<tbody>
<tr>
<td></td>
<td>52.3</td>
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<tr>
<td></td>
<td>15%</td>
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<td></td>
<td>43%</td>
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<td>42%</td>
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</tbody>
</table>

### ...~85% of exports...

<table>
<thead>
<tr>
<th>Exports</th>
<th>In Current USD Bn, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.90</td>
</tr>
<tr>
<td></td>
<td>14%</td>
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<tr>
<td></td>
<td>86%</td>
</tr>
</tbody>
</table>

### ...and ~77% of employment

<table>
<thead>
<tr>
<th>Employment</th>
<th>In Mn people, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>77%</td>
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</tbody>
</table>

Diversity of agro-ecologies and climates allows for cultivation of a wide range of crops and varied livestock rearing.

**CROPS**

Share of Agricultural Production for Main Crops

- CEREAL: 54%
- ROOT CROPS: 13%
- ENSET: 12%
- FRUIT CROPS: 7%
- PULSES: 6%
- CASH CROPS: 5%
- OIL SEEDS: 2%
- VEGETABLES: 1%
- OTHER: 2%

**LIVESTOCK**

Production of Major Livestock Types in 2015

- GOATS: 29 millions
- SHEEP: 29 millions
- CATTLE: 56 millions
- POULTRY: 57 millions
- ALL ANIMALS: 181 millions


Opportunities and challenges in crop production

Opportunities

• 100+ crop types produced nationwide.

• Yield of all crops has grown in recent years, especially cereals, whose yield grew from 1,446 kg/hectare in 2008, to 2,325 kg/hectare in 2014.¹

• Twice-yearly rainfall (March and June-September) allows for multiple crops to be produced; coupled with irrigation schemes, year-round double/rotational cropping is possible.

• Several crops are already exported (fruits and vegetables, flowers, coffee, sesame) and others offer export potential (tef and maize).

Challenges

• Subsistence farming leaves little marketable surplus; majority of farmers are smallholders who practice low input/low output farming.

• Techniques are outdated and often unsustainable.

• Heavy reliance on erratic rainfall, which often leads to high levels of loss.

• Limited mechanization makes farming labor-intensive and time-consuming.


Opportunities and challenges in livestock production

Opportunities
• 180+ domestic animals; biggest cattle population in Africa.
• Existing exports of beef and live animals, especially to the Middle East and North Africa.
• Growing domestic demand for meat and dairy.
• Animals used for agricultural labor in the absence of mechanization.
• Large leather industry – domestic production and consumption, as well as export.

Challenges
• Areas with high livestock populations tend to be arid and prone to drought.
• Limited access to livestock inputs such nutritious food and fodder; improved genetic stock; and veterinary services.
• Increasing livestock population demands more grazing ground, which can degrade vegetation and natural resources.
• Low levels of production of animal products with limited quality standards.

Livestock accounted for over $200 million in earnings in 2016

Leather and leather products earned $130 million

Meat and live animal exports earned $74.6 million

Frameworks, strategies, and plans for agricultural development
Since 1993, the overarching strategic framework guiding Ethiopia’s development has been the Agricultural-Development Led Industrialization (ADLI) strategy.

The ADLI argues for a mutually re-enforcing transformation of agriculture and industry, taking a two-pronged approach to developing the Ethiopian economy that emphasizes:

1. Production of agricultural commodities for export, domestic consumption, and industrial input
2. Expansion of domestic manufacturing based on agro-processing for export, domestic consumption, and improved agricultural inputs and tools

In doing so, it aims to encourage development that:

- Reduces food insecurity
- Creates significant employment opportunities on and off-farm
Subsequent strategies have further articulated Ethiopia’s development goals, helping to set the course for robust, sustainable economic growth based on agriculture.

- “.. primarily focus on the promotion of agricultural-led industrialization, export-led development, and expansion of labour intensive industries”
- “.. the building up of industrialized Ethiopia can be realized only through the implementation of agricultural and rural centered economic and industrial development’
- “If the [ADLI] strategy can be successfully practiced, [it] would be gradually transformed into industrial-led development strategy.”
- “.. a firm integration between the peasants and the industrialists is another most important element in achieving sustainable industrial development.”

Industrial Development Policy (2002)


- “… one basic objective with regard to economic development: to build a market economy in which (i) a broad spectrum of the Ethiopian people are beneficiaries, (ii) dependence on food aid is eliminated; and, (iii) rapid economic growth is assured.”
- “Rural development constitutes the plank that underlies all other efforts towards economic development.”
- “This does not in any way imply that development efforts in rural areas will be limited to agricultural development. Indeed ... there is a need [for] rural infrastructure and social development programs ... trade and industry ... should emerge”

Climate Resilient Green Economy (2013)

- “…the traditional economic development path could deliver the required growth, but at [significant cost] of agriculture land expansion (inducing pursuing and accelerating deforestation), soil erosion, and higher emissions as well as at the risk of exceeding the limits to further development, e.g., by exceeding the carrying capacity for cattle of Ethiopia.”
- “Building a green economy will require an increase the productivity of farmland and livestock rather than increasing the land area cultivated or cattle headcount.”
- “..to limit the soil-based emissions from agriculture and limit the pressure on forests...”
Ethiopia was a relatively early adopter of the Comprehensive Africa Agriculture Development Programme (CAADP), signing the compact in 2009.

CAADP is a pan-African framework that provides a set of principles and broadly defined strategies to help countries:
- Critically review their own situations and
- Identify investment opportunities with optimal impact and returns.

CAADP champions reform in the agricultural sector, setting broad targets:
- 6% agricultural GDP growth annually
- At least 10% allocation of public expenditures to the agriculture sector

The Programme recognizes that enhanced agricultural performance is key to:
- Increased employment opportunities, especially for women and youth
- Food security and improved nutrition
- Strengthening resilience

Ethiopia is one of only a few countries to consistently meet or surpass the CAAPD targets.
Successive national plans have provided the tools to implement the GoE’s strategies and drive economic growth

### 2002 – 2005: Sustainable Development and Poverty Reduction Program
- Identified growth in agricultural surplus as the basis of economic development in other sectors
- Emphasized capacity building and education as key factors of growth
- Prioritized water resource management and irrigation
- Sought to strengthen private sector engagement in industry

### 2005 – 2010: Plan for Accelerated and Sustained Development to End Poverty
- Categorized Ethiopia’s major agro-ecologies into 3 types and outlined tailored farming approaches for each
- Emphasized productivity in areas with reliable rainfall, for food security needs
- Encouraged off-farm employment opportunities
- Supported livestock specialization

### 2010 – 2015: First Growth and Transformation Plan
- Puts agriculture at the core of economic development
- 14 agricultural objectives set to improve crop and livestock production, ensure food security, strengthen markets, improve agricultural services, and drive investment.
- Focuses on increasing production, strengthening agricultural research, facilitating stronger market linkages

### 2016 – 2020: Second Growth and Transformation Plan
- Builds on GTP I progress
- Shifts emphasis gradually toward high-value crops and livestock, and market orientation
- Underpinned by stronger commitment to ensure environmental sustainability and inclusiveness
- Emphasizes investments in geographically integrated development approaches
GTP II currently provides the roadmap for Ethiopia’s over all development agenda, with a strong emphasis on agriculture as the backbone of economic development.

### Growth and Transformation Plan II (2015 – 2020)

<table>
<thead>
<tr>
<th>Macroeconomic Plan</th>
<th>Financial Plan</th>
<th>Economic Development Sector Plan</th>
<th>Economic Infrastructure</th>
<th>Human Development and Technology Capacity</th>
<th>Development Good Governance and Building Democratic Systems</th>
<th>Cross Cutting issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Rural Transformation</td>
<td>Manufacturing Industry</td>
<td>Mining Sector</td>
<td>Construction Industry</td>
<td>Urban development and Housing</td>
<td>Trade</td>
<td>Culture and Tourism</td>
</tr>
</tbody>
</table>

“The following strategic directions will be pursued in the next generation of transformation and sustainable development plan for Agriculture and Rural Transformation:

(i) development of **smallholder crop and pastoral agriculture will be further enhanced** [...];
(ii) Provide all rounded **support to educated youth** to enable them organize and engage in agriculture investment;
(iii) Enhance provision of the necessary **support for domestic and selected foreign investors** taking their capacity into consideration to enable them participate in transformative agriculture sub sectors [...];
(iv) Further pursue implementation of the scaling up strategy as suitable to the various **agro-ecological development zones**;
(v) Pursue holistic measures aimed at addressing constraints and challenges related to **supply of agricultural inputs and utilization of agricultural technologies**.

“Ensuring **sustainable agriculture** [...] aligning the agriculture development plan with the **green economy development** strategy coupled with **expansion of irrigation** [...]. Efforts will be made to **improve benefits to the community** through strengthening **biodiversity conservation**. Enhancing the income of farming households through progressive **transition from producing subsistence crops into high value crops**, putting in place efficient agricultural **marketing system**, and enabling the youth and **women** in rural areas benefit from agricultural development are the other strategic directions to be pursued during the GTP II period.”

-GTP II Plan, Introduction to the Agriculture and Rural Transformation section
Flagship initiatives and accomplishments within Ethiopian agriculture
In support of GTP II and previous growth plans, several important programs have been established to deliver against Ethiopia’s development objectives.

- **ADLI**


- **Climate Resilient Green Economy (2011)**

- **Livestock Master Plan (2014)**

- **SDPRP**
- **PASDEP**
- **GTP I**
- **GTP II**

- **Livestock Master Plan (LMP)**
- **Agriculture Growth Program (AGP)**
- **Livestock & Fisheries Sector Plan (LFSP)**
- **Productive Safety Net Program (PSNP)**
- **Sustainable Land Mangmmt Program (SLMP)**

* Currently in development
The Productive Safety Net Program (PSNP) is the common mechanism for channeling support to both chronic and transitory poor

- The PSNP, now in its fourth phase, is a holistic risk management system for predictable, timely, efficient and equitable response to chronic and transitory poverty or food insecurity.

- It acts as a Safety Net that provides transfers to chronically and transitory food insecure households, strengthens livelihoods, and builds community assets through climate smart public works.

- PSNP provides a contingency budget to support local communities deal with local shocks and a federal contingency budget to support the food needs on the annual humanitarian appeal.

- PSNP covers 8 million chronically poor people in 8 regions of the country (excluding Beneshangul-Gumuz and Gambela) and could potentially be extended to cover the rest.

Advantages of the program

- Geographically targeted to the most drought-vulnerable woredas
- Well functioning community based targeting system
- Contribution to sustainable development: PSNP builds community assets through climate-smart public works
The Sustainable Land Management Programme (SLMP) plays a crucial role in bringing Development Partners together to address climate resilience and green economy issues.

- Now in its second phase, the SLMP has been an entry for **mainstreaming green economy** needs into sectoral programmes at all levels.

- The program introduces sustainable land and water management practices, focusing on reducing GHG emissions from land use change, and increasing carbon stocks in biomass and organic soil.

- **Capacity building** is provided to government and other stakeholders, including extension workers, community groups, and NGOs enabling a range of actors to promote climate smart agriculture and integrated land management practices that internalize climate induced risks and the conservation of biodiversity and soil.

- It has demonstrated how to protect natural assets (land, water and forest) and increase local development by improving agricultural productivity in Amhara, Oromiya and Tigray regions.

- *It is in the process of becoming SLMP-FIPA, an extension into food insecure and pastoral areas.*
The Livestock Master Plan (LMP) provides the strategy through which livestock production and productivity can be enhanced.

- The LMP defines the vision and strategy for the livestock sector through three 5-year development plans for key value chains and production systems:
  - Red Meat
  - Chicken Meat
  - Milk
  - Eggs
  - Feeds

- It is organized around **agro-ecology and crop-livestock zone typology** needs.

- The LMP identifies geographic clustering around:
  - feedlots around sugar and large-scale crop and oilseed processing
  - feed production from milling and agro-industries
  - milk sheds (i.e. high production area with processing / market hub)
  - forage production
  - livestock processing plants

- Investments required vary by end-product, but roughly the LMP identifies the needed at:
  - ~$200M investment from public sector
  - ~$165M from private sector in first 5 years
A new Livestock & Fisheries Sector Plan (LFSP) will ensure that livestock and fisheries initiatives receive the support needed for transformation

- With support from the World Bank, a new project is will be set-up as Investment Project Financing, aimed at **adding value to the existing investments** in livestock development and to **realize the LMP**

- The project **will target three priority value chains** considered strategic both for food security/national supply and for their potential for growth and innovation: **dairy, poultry, and fish** (not included in LMP)

- The **primary beneficiaries** of the project will include:
  - smallholder farmers
  - livestock farmer’s organizations and their apex institutions
  - small and medium scale private livestock operators and enterprises
  - vulnerable groups, particularly women and youths
  - livestock support services institutions

The project envisions the smallholder farmers to move through **four stages**:

1. **Stage 1: Smallholder farmer**
2. **Stage 2: stage 1 with improved husbandry practices**
3. **Stage 3: stage 2 organized into producer organizations**
4. **Stage 4: stage 3 in productive partnerships along the value chain**
The Agriculture Growth Program (AGP) is the government’s flagship program supporting overall agriculture sector development

- Now in its second phase, AGP is a flagship basket fund administered by the World Bank that allows multiple funders to collectively contribute to the GoE’s agriculture sector plans.

- Its objective is to increase agricultural productivity and commercialization of targeted smallholder farmers, increasing participation of women and youth and contributing to dietary diversity and consumption at HH level.

AGP’s Five Key Components

Component 1: Agricultural Public Support Services
Component 2: Agricultural Research
Component 3: Small Scale Irrigation
Component 4: Agriculture Marketing and Value Chains
Component 5: Project Management, Capacity Building and Monitoring and Evaluation
The Transformation Agenda encompasses select areas of intervention, prioritized for having the highest potential to accelerate growth of the agriculture sector.

Similar approaches have proven successful in countries like Taiwan and Malaysia for transforming critical segments of their economies.

The approach entails identifying and ensuring implementation of strategic interventions to unlock bottlenecks constraining sectoral growth.

Emphasis is placed on piloting, monitoring, and adapting innovative solutions over traditional practice.

The Transformation Agenda is aligned with Ethiopia’s national plans and strategies.

The sector has also developed the Agricultural Transformation Agenda (TA), which prioritizes a set of strategic interventions designed to unlock systemic bottlenecks.

1. Increase crop and livestock production and productivity
2. Commercial orientation of smallholder agriculture and market development
3. Environmentally sustainable and inclusive growth
4. Enhance implementation capacity
5. The Agricultural Commercialization Cluster Initiative as a means of integrating the solutions within the 30 Program areas. Focus on measurable impacts on smallholder farmers working on specific high priority commodities in clearly identified geographies.
At the same time, the GoE is integrating several geographically-focused approaches to increase production and improve value addition industries

<table>
<thead>
<tr>
<th><strong>Agricultural Commercialization Clusters (ACC)</strong></th>
<th><strong>Integrated Agro-Industrial Parks (IAIP)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed to strengthen prioritization and focus, and provide strategic platform to effectively execute multiple integrated interventions for commercializing agriculture</td>
<td>Adapts food park and industrial zone concepts to catalyze large investment in industries for processing and value addition of agricultural inputs</td>
</tr>
</tbody>
</table>

**Background**

- Clustering of woredas to support rapid enhancement of priority crops, horticulture and livestock and value chain through proximity of actors
- Ultimate focus on processing and value addition to ensure specialization, diversification and sustained growth
- Staged approach to value chain development

**Approach and main features**

- Heavy focus on provision of basic and agro-processing infrastructure development, shared services, and investment incentives
- Rural Transformation Centers (RTC) surrounding Parks ensure minimum level of input aggregation and primary processing, while providing services to farmers

**Size and funding required**

- 25 clusters of 5-15 woredas
- Public sector funds provide enabling environment
- Private sector investments drive activities
- Four 500 acre parks w/ ~25 RTCs
- Secured funding from Italy, UNIDO
- Very large public and private investment required
The Agricultural Commercialization Clusters Initiative is part of the TA and integrates all TA interventions in strategic geographies for greater impact.

- **239 woredas (districts) in 4 regions**
- **14 crops and commodities**
- **Value chain alliances & market linkages**
- **Large scale demonstrations for farmers**
Integrated Agro-Industrial Parks will work with ACC and other actors to strengthen agro-processing industries in each of Ethiopia’s four main agricultural regions.
Development efforts are already leading to significant gains in improving crop yields and production, contributing to increased incomes and reduced poverty.

**Average Yield of Major Cereals**
In Quintals per hectare

- **2004**: 11.6
- **2013**: 22.2
- **Increase**: 1.9x

**Cereal Production**
In Million MT

- **2004**: 10.3
- **2013**: 22.7
- **Increase**: 2.2x

**Per Capita Income**
In USD

- **2004**: 171.0
- **2013**: 550.0
- **Increase**: 3.2x

**Poverty Headcount**
In % of population

- **2004**: 38.7
- **2013**: 26.0
- **Reduce**: 0.67x

SOURCE: World Bank Data; FAO Data; UNDP; ATA Analysis
Projections suggest that these gains, and Ethiopia’s overall recent economic performance, will be sustained through GTP II until 2020 and beyond

1 Strong demographic drivers will contribute to this including increasingly young and skilled labor

~47 Mn people are in workforce, with ~41 Mn expected to join in the coming 15 years

Population breakup by age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>In Mn</th>
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<tbody>
<tr>
<td>&lt;14</td>
<td>41 (45%)</td>
</tr>
<tr>
<td>14-60</td>
<td>47 (52%)</td>
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<tr>
<td>&gt;60</td>
<td>3 (3%)</td>
</tr>
</tbody>
</table>

- ~80,000 college graduates joining workforce annually
- 11 universities are being set up in addition to the existing 34
- Emphasis on improving quality and quantity of graduates

2 Ethiopia is becoming increasingly urban and middle class

- ~3.6% urbanization rate annually
- ~7.2% increase in incomes annually
  \((In\ terms\ of\ GDP\ per\ capita)\)

Economic growth projections by IMF
In real GDP Growth rate (%); 2015 - 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced economies</td>
<td>3.8%</td>
</tr>
<tr>
<td>Global average</td>
<td>4.9%</td>
</tr>
<tr>
<td>Emerging and developing economies</td>
<td>8.1%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

SOURCE: Ministry of Education; Central Statistics Agency; Growth and Transformation Plan; World Bank Data; IMF
Transforming the agriculture sector will ensure food security, improve the livelihoods of rural communities, and help Ethiopia become a middle income country in 2025

- Boosting production and productivity will increase produce available for household consumption and for market, eliminating dependence on food aid.

- Cultivation of diverse crops will simultaneously improve nutrition and help preserve natural resources.

- Farmers will earn income year-round from high-value crops cultivated through irrigation, as well as annual rains.

- Increased supply of livestock products will help meet growing domestic and international demand, and earn farmers higher incomes.

- Mechanized farming will save farmers’ labor and allow their children to seek off-farm employment opportunities.

- A flourishing agriculture sector will support continued economic growth, by providing raw materials for agro-processing and industry, and boosting exports.
Innovations to help our country grow