



Food and Agriculture Organization  
of the United Nations



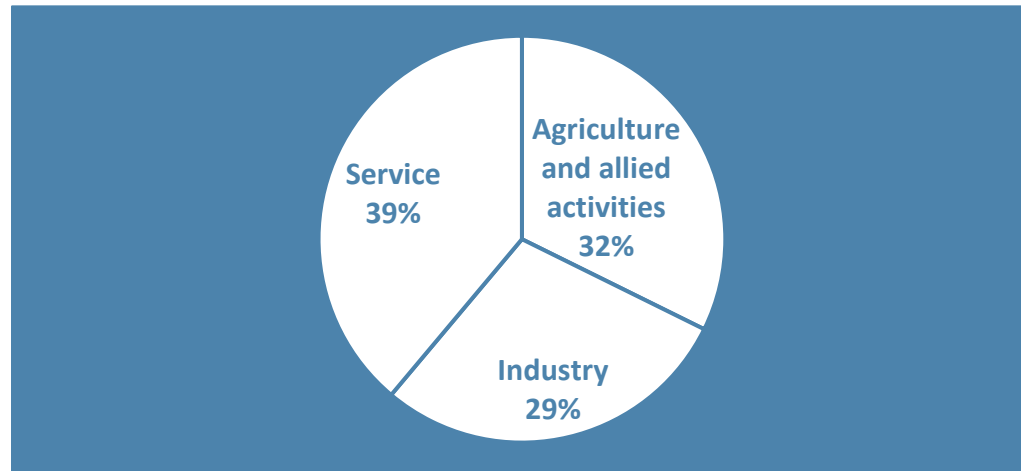
## Ethiopia Investment Cases for Investment Forum

Investment Forum | Rome, Italy | October 2023

# 1. Ethiopia-Country Profile

## 1.1 Key Macro-economic Indicators

- Ethiopia is an agrarian country with a population of some 110 million;
- Agriculture accounts for 32.4% of the GDP



- Average GDP growth (2010/11 – 2019/20): 10.4% (WB); and continued to grow by 6.4% in 2021/22 (NBE, 2023):
  - 6.1% agriculture, 7.6% service, and 4.9% industry (NBE,2023) ;

## 1.2 Agricultural Land Characteristics

- Ethiopia has 38.5 million ha agricultural land (34% of total) (the WB, in Trading economics, 2023)
- About 15.6 million ha currently under production
  - 2.1 million ha allotted to private commercial sector investors, of which 44% utilized; opportunities exist for partnership
  - Also planned to raise available land to private commercial farm to 4.2 million hectares by 2030
- Unexploited potential in agriculture; for investors and farmers, with high returns through inclusive investments;

# 1.3 Country Profile: Policy Environment



## Policy frameworks that aligns with agenda 2030 (SDGS)

- Ethiopia consistently invests in agriculture to meet domestic food and nutrition security, export, and industrial demands
- It has developed policy, strategies and investment plans consistent with agenda 2030 (SDG) :
  - The Home Grown Economic Reform Agenda
  - The Ten-year Development Plan (2021 – 2030)
  - Revised Agriculture and Rural Development Policy (2020)
  - Ethiopian Food Systems Transformation Vision 2021
  - Smallholder Irrigation and Drainage Strategy 2019

## Major Policy Shifts

- the HGER agricultural sector reform aims to:
  - Gradual shift from public-led to private-led growth
  - From rainfed dependence to expansion of small- to large-scale irrigation development
  - promoting import substituting of major agricultural crop production
  - improving supply of inputs and finance,
  - reduce the demand for chemical fertilizers by promoting widespread utilization of natural fertilizers
- Transition from public fertilizer import to local manufacturing, with distribution that is open to public, private and cooperative players ...

# 1.4 Country Profile: Investment Environment



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## National Agricultural Investment Plan (NAIP, 2021) identified priority investment areas :

- 12 commodity-based flagship programs and 10 complementary Investment ( CIP) in which Soil health, Irrigation, Mechanization & Animal feeds emphasized;
- USD 21.6 billion targeted for 10 years, of which
  - 31% is for CIP, 39 % for commodity based flagship program, and the remaining 30% to NRM, Nutrition and Food Security;

## Ethiopia is open for business, with investment incentive packages:

- Eased process for registering and starting a business
- Safety of physical investments ensured by Government
- 2 -10 years business income tax exemption based on the type of investment; with additional incentives related to industrial parks;
- Exemption from export tax and customs duty ,
- Export credit guarantee scheme;
- Option to carry forward losses ....



# 1.5 Integrated Agro Industrial Parks (IAIP)



## Key Characteristics

- There are 3 well-established industrial parks and one is upcoming
- One Stop Shop Service (EIC, Bank, Post Office, Telecom & Custom Office)
- Fast-track investment process (max 2 weeks) to secure all permits and license
- Developed land for lease to investors including dedicated water and power supply
- Wet and dry waste treatment plants and wastewater treatment facility
- Standard factory sheds and ancillary buildings
- Health station, police station, residences for expatriates and fire brigade services
- 24X7 public safety infrastructure, security and surveillance systems
- Availability of raw material for value addition and processing
- (Wheat, Fruits and Vegetables, Dairy, Honey and Oil-seeds etc.)

## One-stop shop enabling investors to access major services



## 2. Ethiopia Investment Cases for HIH

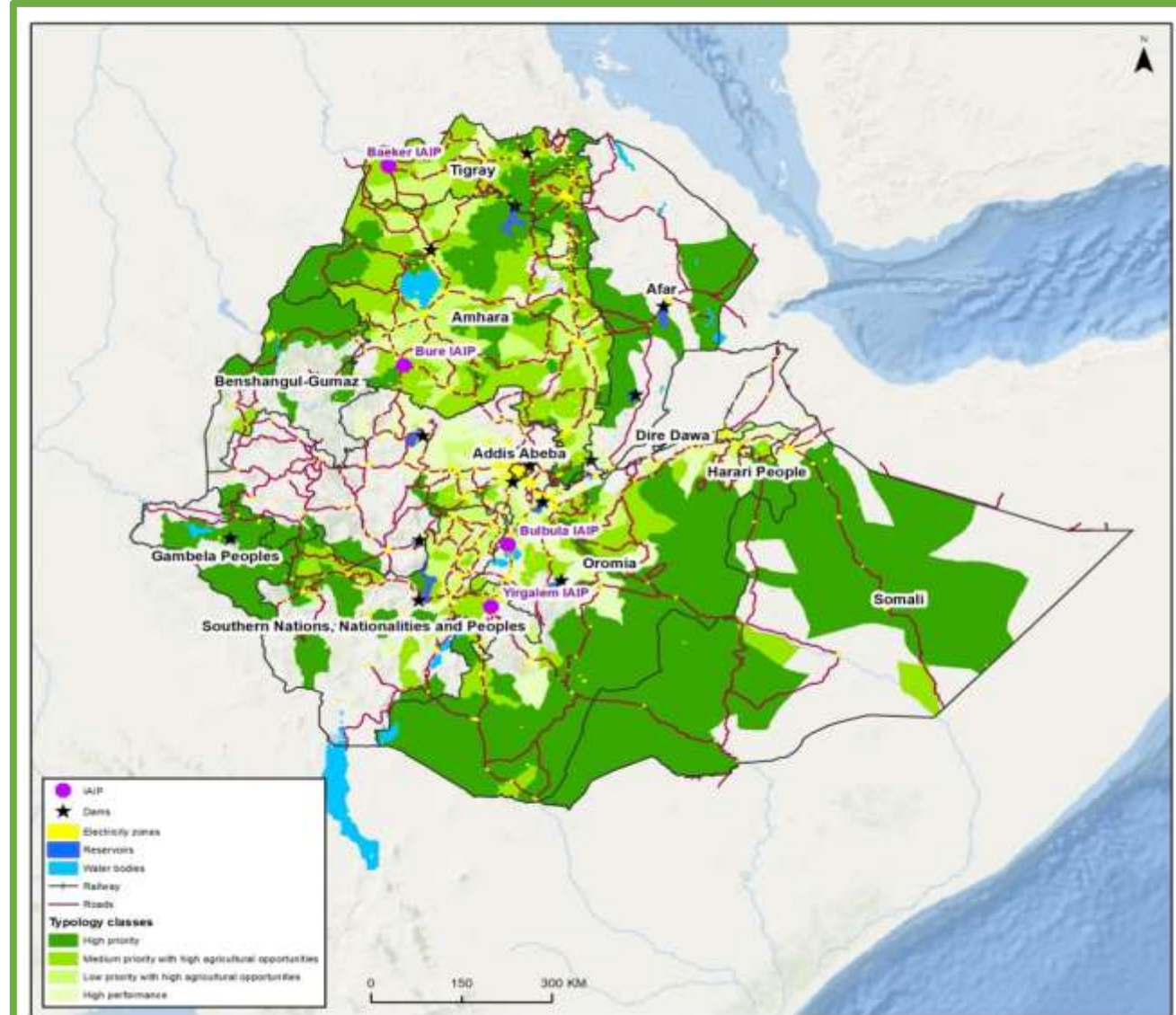


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Target productivity enhancement for agro-industry in priority areas with high agricultural potential:

1. Local Organic Fertilizer and Lime Production
2. Smallholder Mechanization
3. Livestock Feed Production

By making good use of IAIP, as well the proposed priority investments, investors are encouraged to explore possibilities of establishing agro-processing industries.



### Soil Health Issues

#### Physical

- Physical land degradation
- Waterlogging
- Low moisture availability
- Soil structural deterioration and soil pollution

#### Chemical

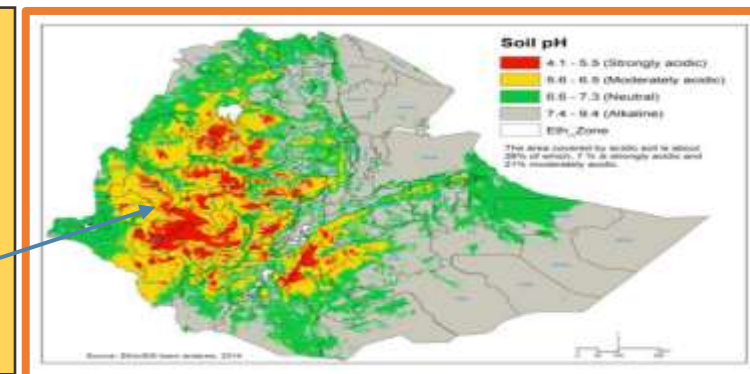
- Salinity and soda-city
- Acidity

#### Biological

- Organic matter depletion
- Soil fauna and flora depletion
- Nutrient depletion
- Biomass coverage removal

### Soil Acidity Coverage

43% of cultivated land (6.7 million ha) with different levels of soil acidity\_3 million ha with pH < 5.5 requires immediate mitigation .



#### Interventions

##### Inputs

- Chemical
- Inorganic
- Bio-fertilizers

##### Management

- Conservation
- Acidity/Saline/sodic soils management

- With an average application rate of 3 tons per hectare in one round, it requires 18.6 million tons lime in five years

# 2.1. Local Organic Fertilizer and Lime Production: Business Models and Returns

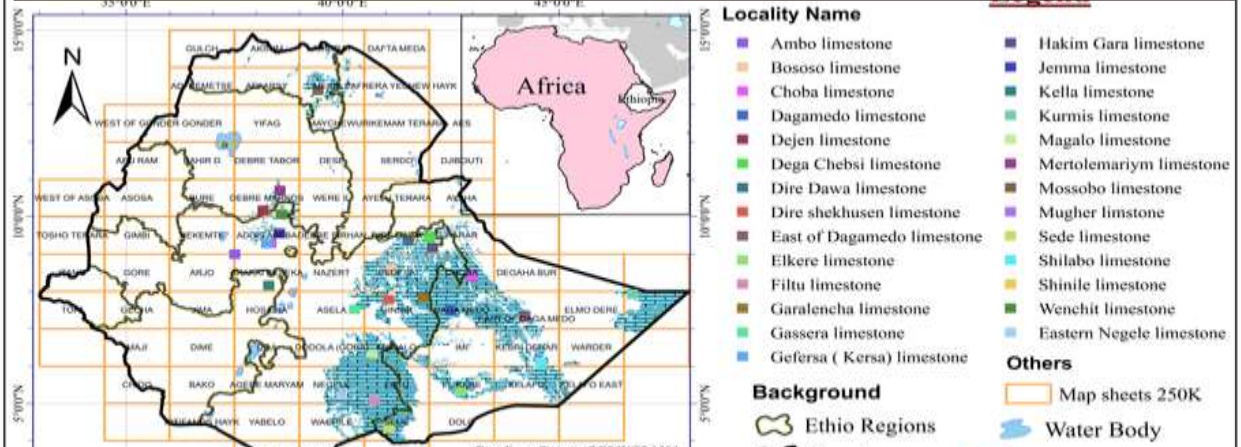


- It requires 10 factories with 1,200 tons per day capacity each to cover acid-affected lands in 5 years
- Opportunities exist for new production factories establishment nearer to the acidic soils to reduce the transportation cost:
  - Abay (Blue Nile) basins are the main transport reducing sites (roughly for 78% supply)
  - Second, Ogaden Basin ( 20% supply ) and Mekele area (2% )
  - Total Investment Required : USD 122.4 Million**

## 2. Lime supply

- Parallel investment on transport facilities are potentially required plants producing lime need either to:
  - Have their own transport system or
  - Make contractual arrangement with transport companies
- The plants incorporate the cost of transport in the sales price at a rate of USD \$5 per 10 km travel of 1 ton.
- The average transport distance is 200km.
- Government guarantees, or avails credit line to farmers for the payment of limestone procurement;

Limestone/dolomite Occurrences Collected from 1:250,000 Map



### Benefits

**NPV (17%)** { • US\$4.5M

**IRR** { • 23%

**COST** { • US\$ 13.6 M per plant

- With the right application of lime, productivity increase ensures that users of lime can easily pay their debt.
- If maize (as an example) productivity rises from 30q/ ha to 60q per ha the increment in revenue much exceeds the cost of liming;



# 2.2 Organic Fertilizer Production



**Municipal solid waste main input**

- Demand for organic fertilizers is estimated to be 20.8 million tons/ annum
- 2 millions tons MSW available per annum with manual collection and separation

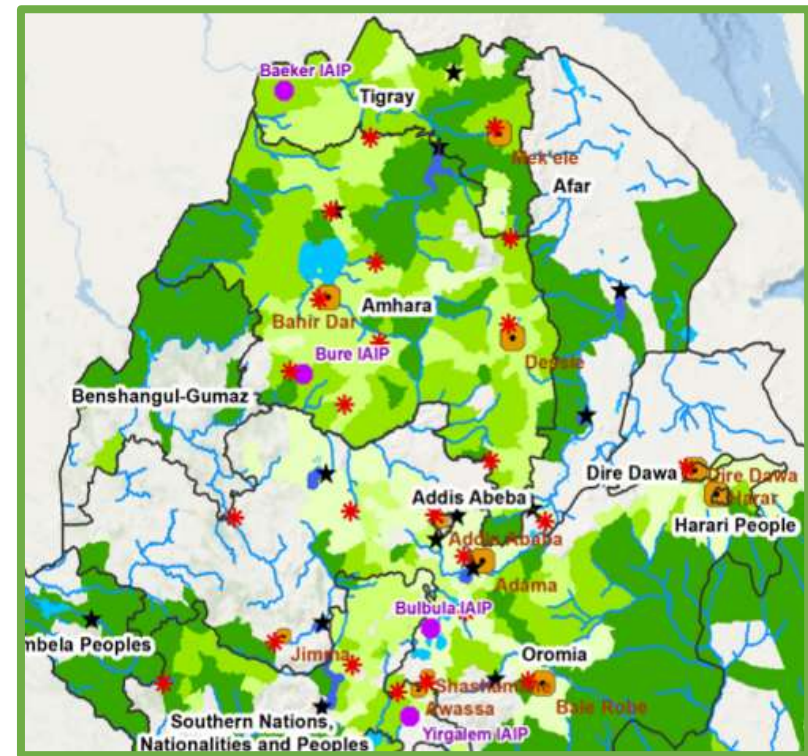
**35 Factories required**

- Each producing about 65,000 tons per year capacity,

**Expected results**

- using organic versus chemical fertilizer  
Increases wheat productivity by 50%
- Carbon reductional potential of 0.1 tCo2-e/ha per year

## Potential Locations of Organic Fertilizers Plants



**The Investment**

- Total Cost USD 133 Million  
Cost per factory: USD 3.8 M
- NPV (17%): 1.9 M; sensitive to change in costs, benefits.
- IRR: 25%

To be operated as SMEs, producer organizations, or private companies



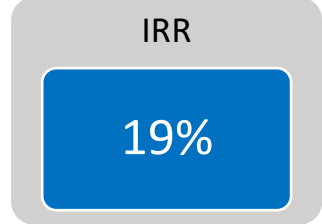
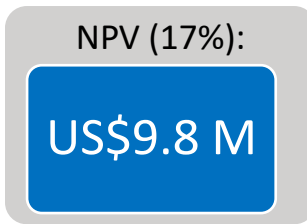
# 2.2 Mechanization-Smallholder Irrigation



- **National Production of Irrigation equipment and accessories :**
- of simple, low-cost, **sprinkler**, hose or **drip irrigation** technologies + equipment for **source development** (pumps, storage equipment), and **distribution** (pumps, pipes, hoses and fittings )

## Government Commitments:

- Import license and forex
- Safety of production sites.
- Public procurement preference to national production.
- Continued technical support to farmers



## Benefits:

- 2,996,753 Jobs: mainly at field level.
- 100% Productivity enhancement

## Intervention:

**TOTAL INVESTMENT**  
**USD\$82 MILLION**

**1.6 million Ha in need of irrigation equipment**

• Increases from 4 to 10% of cultivated land by 2030 (target)

**Direct purchase of equipment**

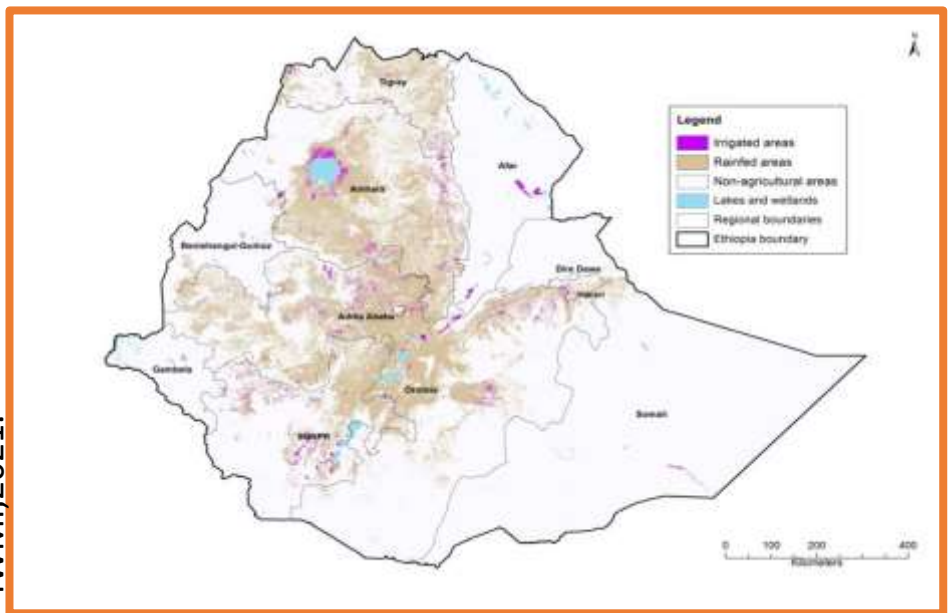
• By farmers and public procurement

**USD 500-5000/ha (valued)**

• Affordable and durable equipment



Irrigated and rain-fed lands ( 2015-2016), IWMI, 2021.



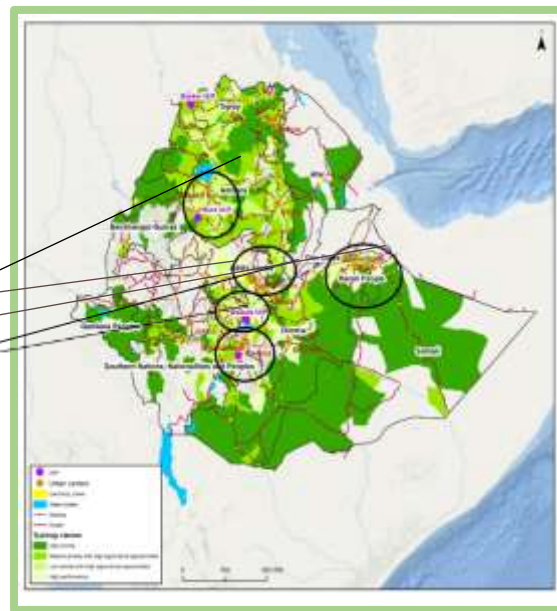
# 2.2 Mechanization- Small Tractors



- Country Demand:**
- Large yield gaps and production increment opportunity
  - ATI supported farmers organized in clusters can access larger equipment
  - 48% i.e 7.4 million ha of fragmented land requires to substitute or complement inefficient and expensive oxen power

## Intervention 1: Small Tractors Production Model

- 5 Factories to locally manufacture:**
- Walking tractor (10 horse power).
  - Small tractors (<100 horse power)
  - Supplements/attachments



NPV (17%)	IRR	Cost
• US\$ 0.8 M	• 20%	• US\$ 25 M. • (US\$ 5 M per factory)



## Intervention 2: Ag-equipment leasing model

- App development and maintenance «hello tractor».
- Mechanization Rings or Clusters registers as SMEs with capital for machinery and maintenance

- Benefits:**
- Potentially 154 SMEs
  - 3234 Jobs

➤ **TOTAL INVESTMENT: USD \$32.8 MILLION**

NPV (17%)	IRR	Cost
• US\$ 83,000	• 49%	• US\$ 7.7 M • (US\$ 50,000 per bussiness)

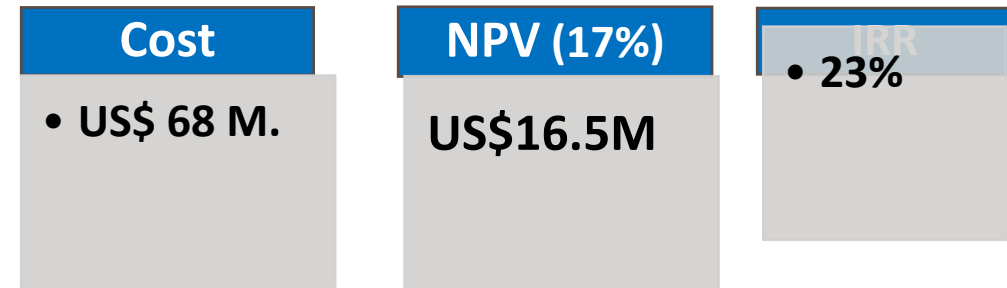
### DEMAND

- High livestock population (over 200 million)
- Low productivity - milk, meat, egg;
- Substantial investment over past years into livestock, with an over-capacity of dairy facilities and slaughter houses;
- National livestock programmes in highland and lowland areas ongoing (e.g LFSPD and LLRP)
- *Yelemat Tirufat program* to enhance productivity and production (poultry, dairy milk, meat);

### Risks:

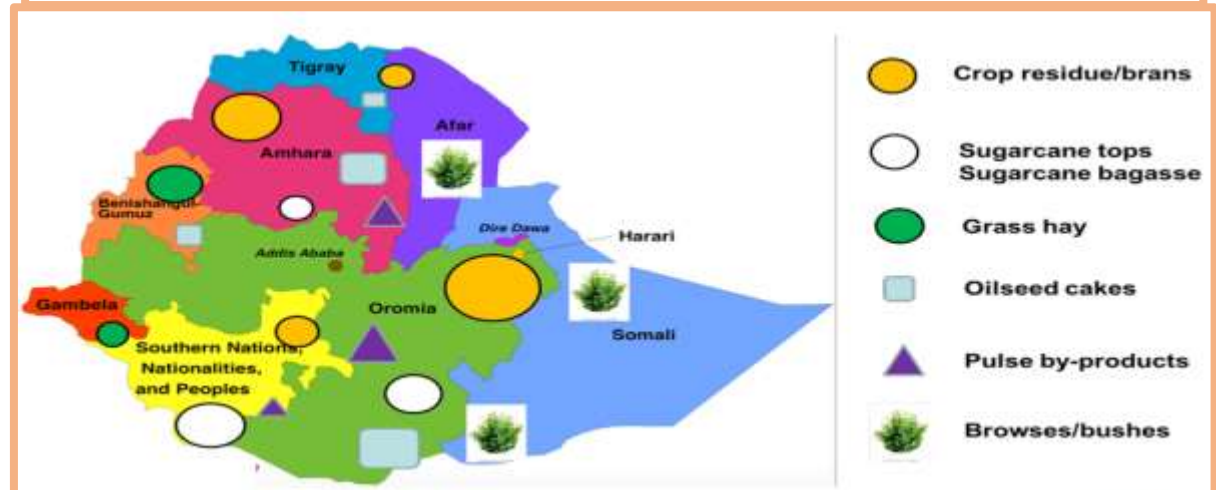
- High feed prices;
- Limited agro-industrial by-products;
- Domestic price of wheat bran=USD 740 per ton; 5x world market price;
- Pasture lands under threat;
- More production is needed through investments into out-growers, contract farming, large scale feed production;

### INVESTMENT 1: Composite and concentrate feed production



### Interventions:

- Commercial production using **agro-industrial by-products and nutritive additives**.
- Complementary **investments required** in inputs to feed production such as **vitamins and oil cake**



# 2.3 Animal Feed Production

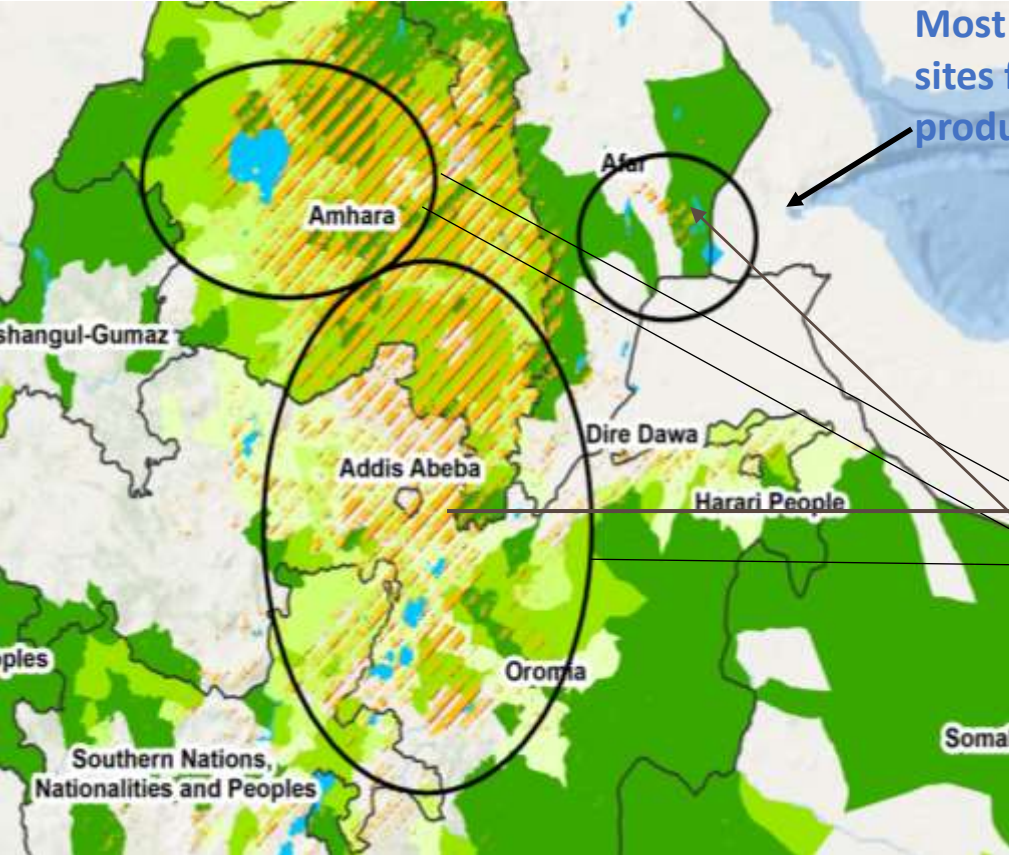
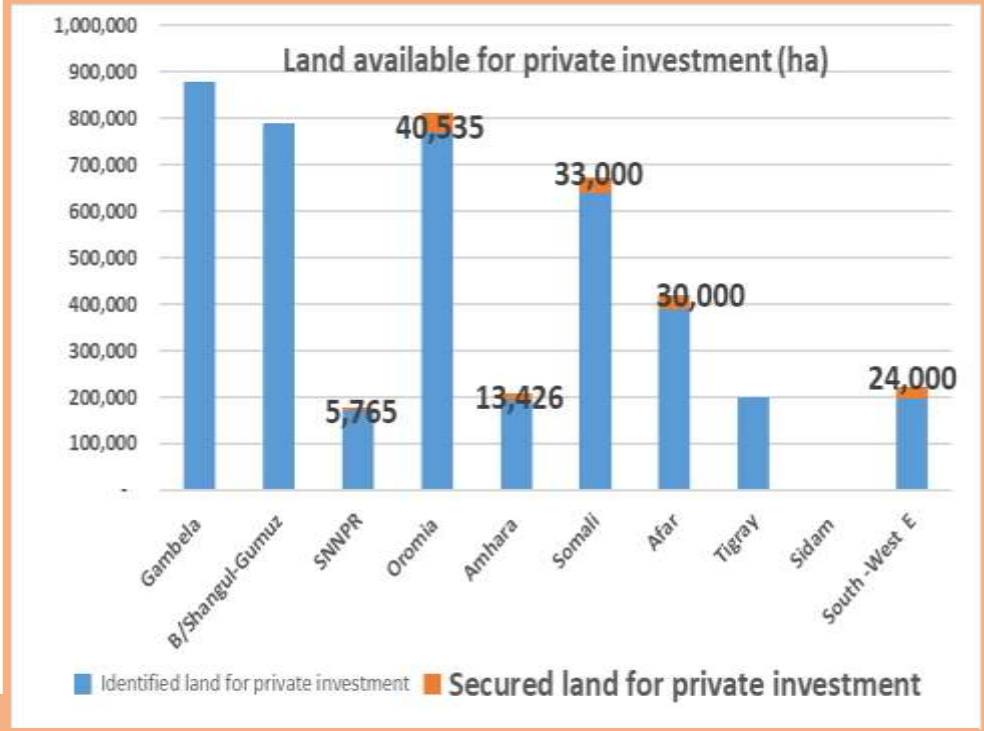


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## Investment 2: Commercial Silage Production (Oats and Corn)

➤ TOTAL INVESTMENT  
USD 90 MILL

NPV ( 17%)	IRR	Cost
• US\$137 M.	• 43%	• US\$ 90 M



- Oats silage in highlands
- Corn silage in highlands and lowlands

- Commercial level silage production:**
- Renting dry season land to produce maize stalk
  - Out-grower farming model with contracts
  - Securing land available for private investment.



# SUMMARY



**520 USD million**  
Investment Cost

**29%**  
Avg IRR

**3 Million**  
Jobs Created

**6.5 USD Billions**  
Income to farmers

**12.6 million**  
Beneficiaries reached

**43 million**  
tCo2-e sequestered

Govt Contribution to Overall Investment in CIP in 10 yrs:  
**USD2.16 billion**

## SOIL HEALTH

1

### AGRICULTURAL LIMING

INV Cost: USD:122.4mil  
NPV (17%): 4.5 million  
IRR: 23%

### ORGANIC FERTILIZER PRODUCTION

INV Cost (USD): 133 mil.  
IRR : 25  
NPV (17%): 1.9m  
Jobs: 440

### BENEFITS OF soil health

- USD 2.2 billions income
- 3.65 million farmers
- 43m tCo2-e sequestration

## MECHANIZATION

2

### IRRIGATION EQUIPMENT

INV Cost (USD): 82mil.  
IRR (%): 25  
NPV (USD): 9.8m  
Jobs: 3 million

**BENEFITS:**  
USD 1.25 billions income  
2.5 million farmers  
tCo2-e sequestration

### SMALL TRACTOR PRODUCTION and LEASING

INV Cost (USD): 25 million	INV Cost (USD): 7.7 million
IRR : 20%	IRR : 49%
NPV (17%): 0.8m	NPV (17%): 0.08m
Jobs: 250	Jobs: 3234

### BENEFITS

USD 612 million income  
4.4 m farmers  
Income to farmers:  
tCo2-e sequestration

## ANIMAL FEED

3

### COMPOSITE FEED FACTORY

INV Cost (USD): 68 million	<b>BENEFITS:</b> USD 307 million income 258,000 farmers tCo2-e sequestration
IRR : 23 %	
NPV (17%): 17m	
Jobs: 250	

### COMMERCIAL SILAGE PRODUCTION

INV Cost (USD): 90 million	<b>BENEFITS:</b> USD 2.1 bn million income 1.8m farmers tCo2-e sequestration
IRR : 43 %	
NPV (17%): 137m	
Jobs: 1398	

