



Food and Agriculture Organization
of the United Nations



Ethiopia Investment Cases for Investment Forum

Investment Forum | Rome, Italy | October 2023

Ethiopia: context

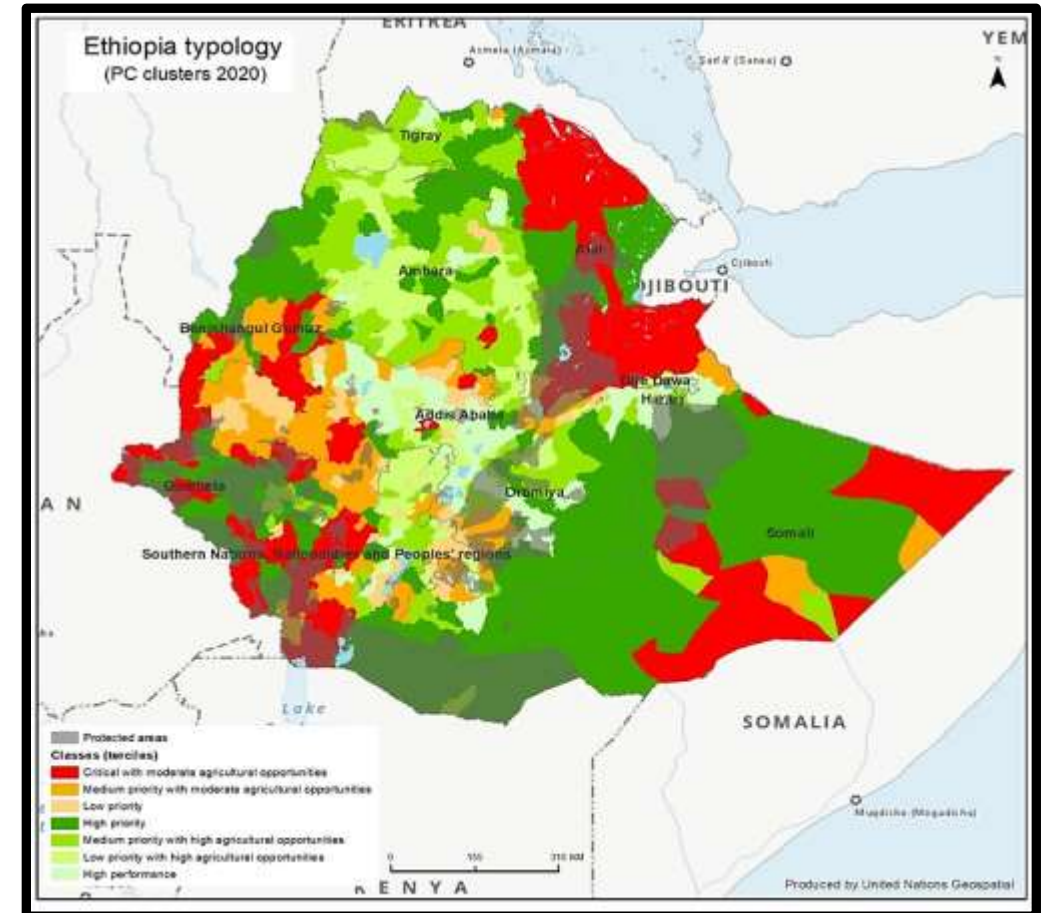


Country Profile

- Total population: 120 Million
- Average GDP growth rate (2010/11 – 2019/20): 10.4% (World Bank)
- GDP continued to grow by 6.4% in 2021/22(NBE, 2023):
 - 6.1% in agriculture, 7.6% services, 4.9% industry (NBE,2023)
- Agriculture accounts for 32.4%, industry 28.9% and services 40% of GDP(NBE, 2023);
- Investment to GDP ratio stood at 25.3% while domestic savings to GDP ratio was 15.3% (NBE, 2023)
- Yet, poverty 27% (WB, 2015) and prevalence of undernourishment (21.9%, FAO 2022) still high

Hand in Hand Micro-region typology:

Untapped potential in agriculture: for investors and farmers may yield high returns through inclusive investments



Ethiopian government commitments to achieve SDGs (1,2, 17)



Policy frameworks

- Ten-year Perspective Development Plan (2021 – 2030)
- Revised Agriculture and Rural Development Policy (2020)
- The “10 in 10” National Programs focuses on raising production and productivity levels of priority commodities (wheat, *Lemat Tirufat*)
- Ethiopian Food Systems transformation Vision 2021

Adoption of SDGs (2015)

Major policy shifts

- Enhancement of productivity and competitiveness of the overall economy
- **Gradual transition from public to private sector-led growth (HIGER):**
 - Improve the role and participation of the private sector
 - Expansion of small- to large-scale irrigation development
 - Improving supply of inputs and finance
 - Enhancing the productivity of livestock
 - Promoting import substituting of major agricultural crop production
- **Transition from public fertilizer import to local manufacturing** - distribution open to public, private and cooperative players (revised policy, 2023)

Investment environment



National Agricultural Investment Plan (NAIP) developed:

USD 21.6 billion for 10 years:

- 30% for complementary investment projects (CIP) - irrigation, mechanization, animal feed and soil fertility
- 20% to be contributed by private sector while the remaining 10% to assist the private sector through CIPs

MoA invested USD 508 MI (2019-2021):

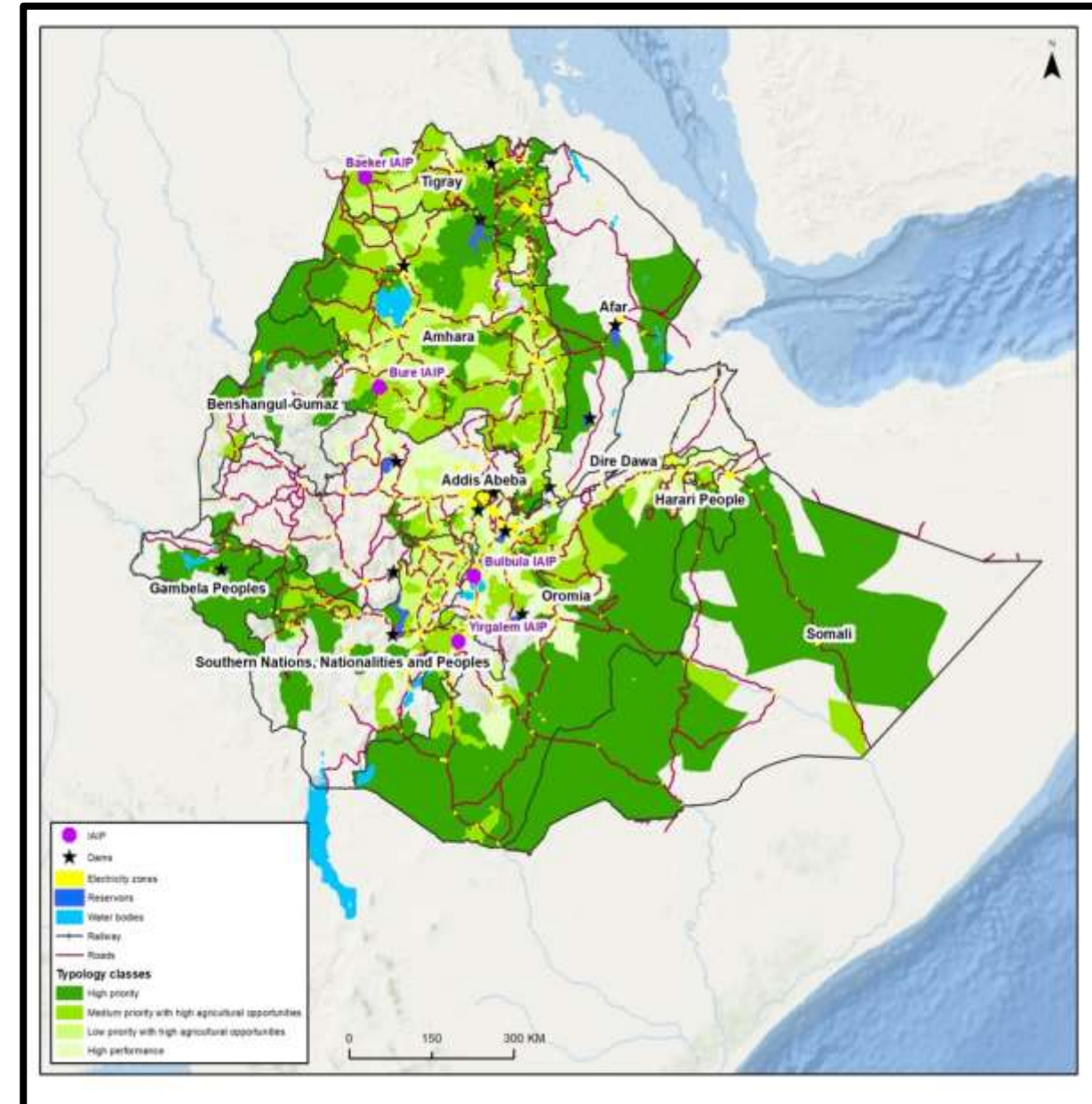
- Extension, research, agricultural transformation institute, and related institutions
- USD 185 millions into mechanization and private sector development

Ethiopia is open for business

- 10 years business income tax exemption in agricultural sector -- additional incentives related to industrial parks, exports and income tax for expatriates
- Option to carry forward losses
- Eased process for registering and starting a business
- Import, export tax incentives
- Availability of land to investors
- Contract-farming and PPP regulation in place
- Safety of physical investments ensured by Government

Investment environment

- Ethiopia has 38.5 million hectares of agricultural land (34% of total)
 - About 15 million ha currently under agricultural use
 - 2.1 million ha allotted to private sector use
 - Currently 40% is being used
- Opportunities exist for partnerships and leveraging on existing investments
 - Regional export markets exists
 - Agricultural clusters, agroparks and RTCs
 - Road networks, airport hubs



Investment cases



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

Local Organic Fertilizer
and Lime Production

Smallholder
Mechanization

Livestock Feed
Production

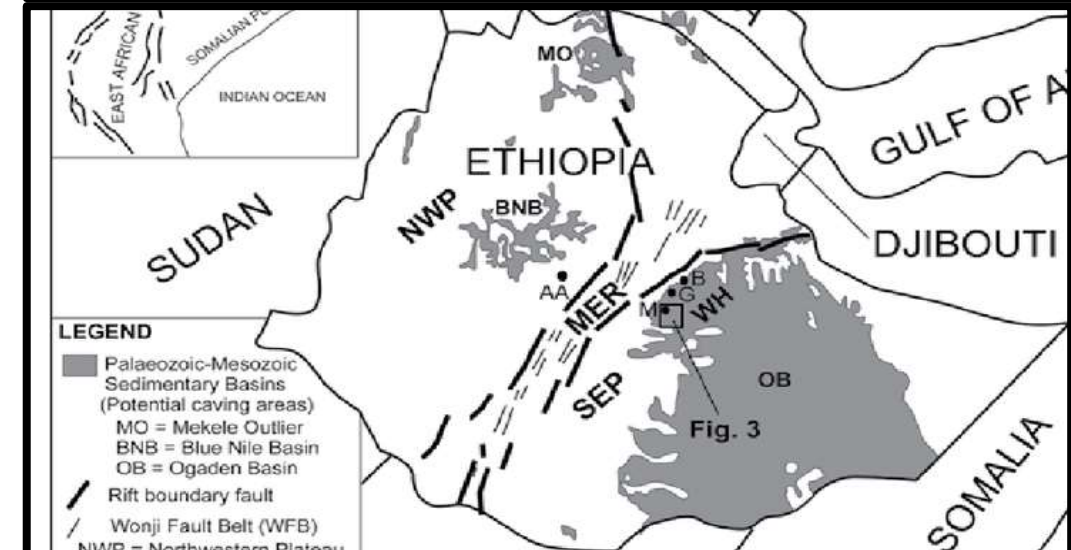
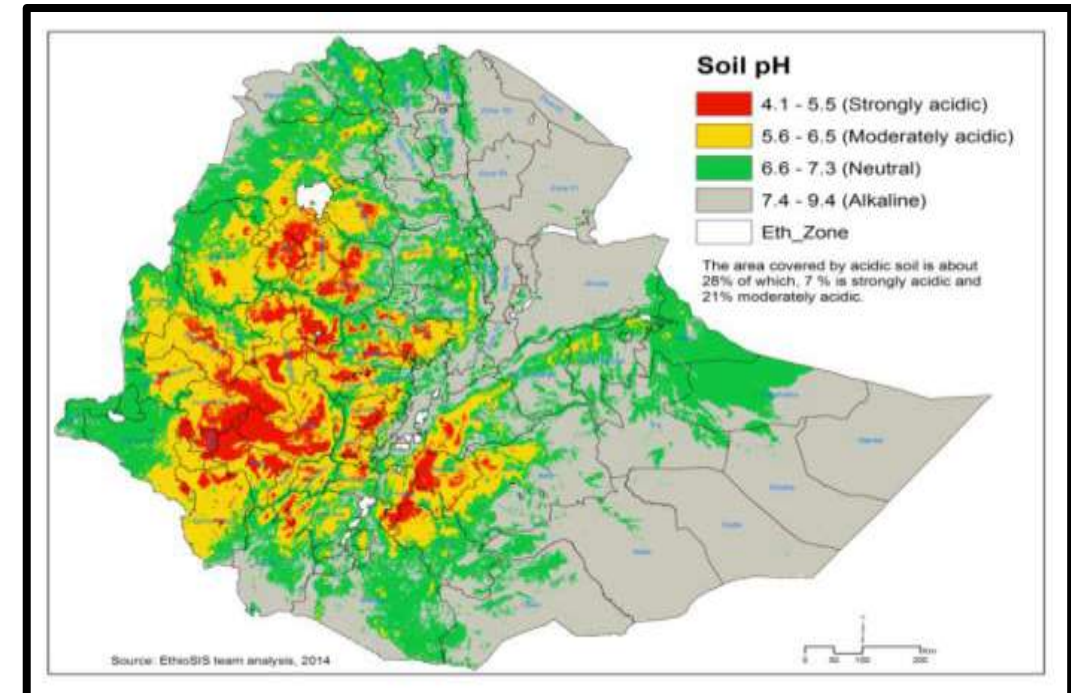
1. Local organic fertilizer and lime production

Severely depleted soils, yield gaps, and significant intensification required

- 40% of cultivated land (6.2 million ha) requiring immediate mitigation for soil acidity
- With average application rate of 7 tons/hectare (in one round) require 43.4 million tons of lime

Some agricultural lime production facilities are available, but transport costs are high

- Sites of limestone rocks are available but areas with acidic soil are far apart
- Deployment or parallel investment on transport facilities would be required



1a. Soil health and liming



Supply

- Establishment of new production factories near acidic soils to reduce transportation cost
- Production facilities in Abay Basin (Blue Nile) best suited sites (roughly for 78% supply),
- Followed by Ogaden Basin (20%) and Mekele area (2%)
- Requiring 22 production plants with 1200 tpd capacity each to cover all acid land in 5 years time and repeating the application every 5 years

Key investment info

| VPN | IRR | COST | TOTAL INVESTMENT |
|-----------------------------|-----|--------------------------------|----------------------|
| (At 17%) US\$4.5 million | 23% | US\$ 13.6 million per plant | USD 299.2 million |

Business model and returns

Businesses producing agricultural lime need:

- Their own transport system, or
- Contractual arrangement with transport companies

Plants can provide transport services to recipients farmers with hired trucks of efficient size

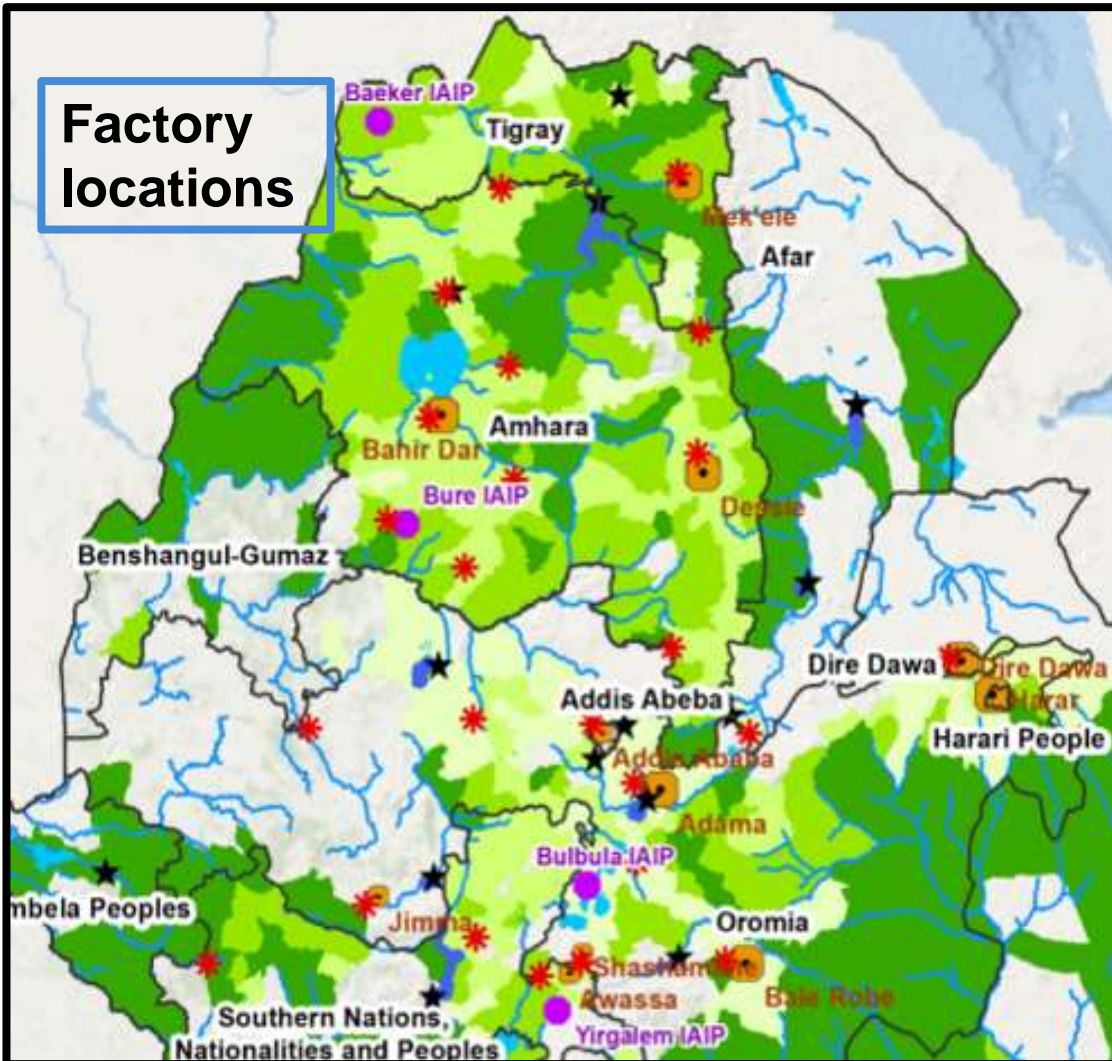
- Cost of transport in sales price at a rate of USD \$5 per 10 km travel per ton.
- Average transport distance is 200km

Government guarantees credit sales or avails credit line to farmers for payment of limestone procurement:

- If right application of lime, farmers increase productivity, allowing credit repayments
- Maize: productivity rises from 30q/ ha to 60q per ha, increment in revenue exceeds the cost of liming

1b. National Organic fertilizer production

Factory locations



Model

- Municipal solid waste as main input
- 2 millions tons MSW available per year with manual collection and separation
- 35 factories – each producing about 65,000 tons per year capacity
- Using organic versus chemical fertilizer
- Carbon reductional potential of, 0.1 tCo2-e (reduction per ha per year)
- Increased wheat productivity of 50%

Key investment info:

- USD 133 Million Investment
 - **Cost per factory:** USD 3.8 Million
- **NPV (17%):** 1.9 Million; sensitive to changes costs, benefits.
- **IRR:** 25%
- **Total cost:** USD \$133 million

2a. Smallholder mechanization: irrigation



National production of irrigation equipment and accessories

- Low-cost, simple sprinkler, hose or drip irrigation technologies and equipment for source development and distribution

Government commitments:

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

Beneficiaries:

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

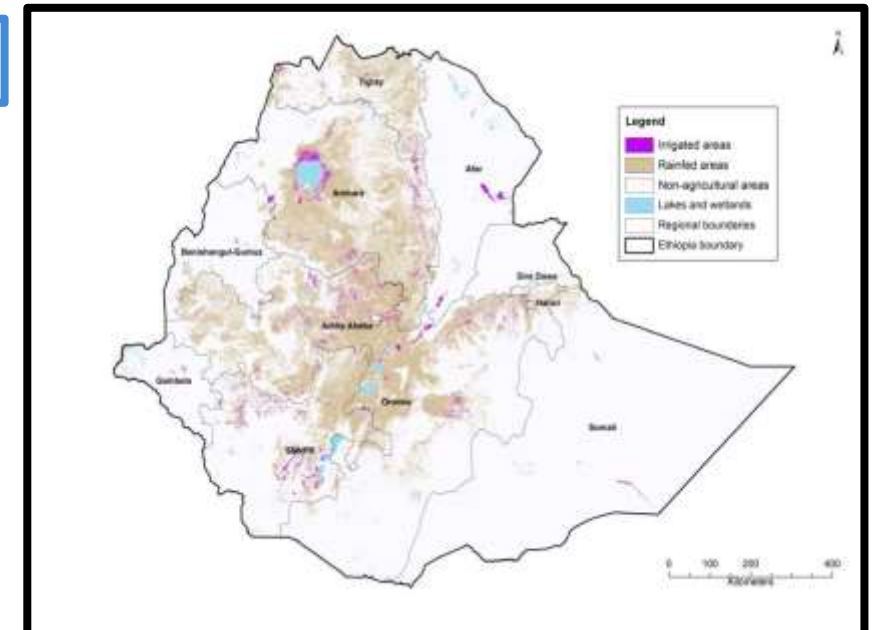
Key investment info:

| NPV | IRR | COST |
|-------------------------|--------|------------------|
| • (17%): USD9.8 Million | • 19 % | • USD 82 Million |

Intervention

- 1.6 million hectares in need of equipment
- Increase from 4-10% by 2030 (target)
- Direct purchase of equipment by farmers and public procurement
- USD 500/ha (valued)
- Affordable and durable equipment

Irrigated areas



2b. Smallholder mechanization: small equipment



Intervention: small tractors production model

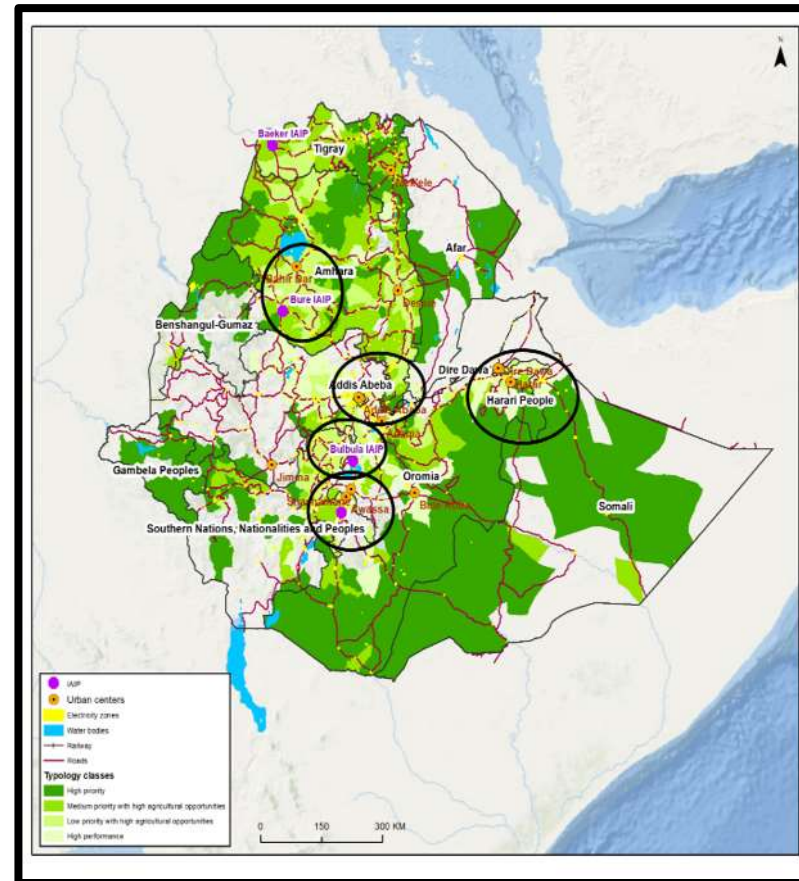
Intervention: ag-equipment leasing model

Country demand:

- Large yield gaps and production increment opportunity
- ATI support farmers organized in clusters access larger equipment
- 48% (7.4 mill ha) of fragmented land require to substitute or complement inefficient and expensive oxen power
- 5 factories to locally manufacture: Walking tractor (10 horsepower); Small tractors (<100 horsepower); Supplements/attachments

Key investment info:

- **NPV:** 17% (USD 0.8 Mill)
- **IRR:** 20%
- **COST:** USD 25 Mill (USD 5 Mill per factory)



Actions

- App development and maintenance «hello tractor».
- Mechanization rings or clusters registered as SMEs with capital for machinery and maintenance

Beneficiaries: 1 Potentially 154 SMEs; 3,234 Jobs

Key investment info:

- **NPV:** 17% (USD 83,000)
- **IRR:** 49%
- **COST:** USD 7.8 Mill (USD 50,000 per business)

3a. Animal feed production



History and demand

- **Low productivity of livestock** - milk, meat, eggs
- **Substantial investment over past years into livestock** - over-capacity of dairy facilities and slaughter houses
- **National livestock programmes in highland and lowland areas** ongoing (e.g LFSPD and LLRP)
- **Yelemat Tirufat** to enhance productivity and production (poultry,dairy milk, meat)
- **High livestock population:** Cattle – 65 mill; Sheep – 40 mill; Goats – 51 mill; Poultry – 49 mill; Over 200 mill. animals

Risks

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

Investment: composite and concentrate feed production

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

NPV

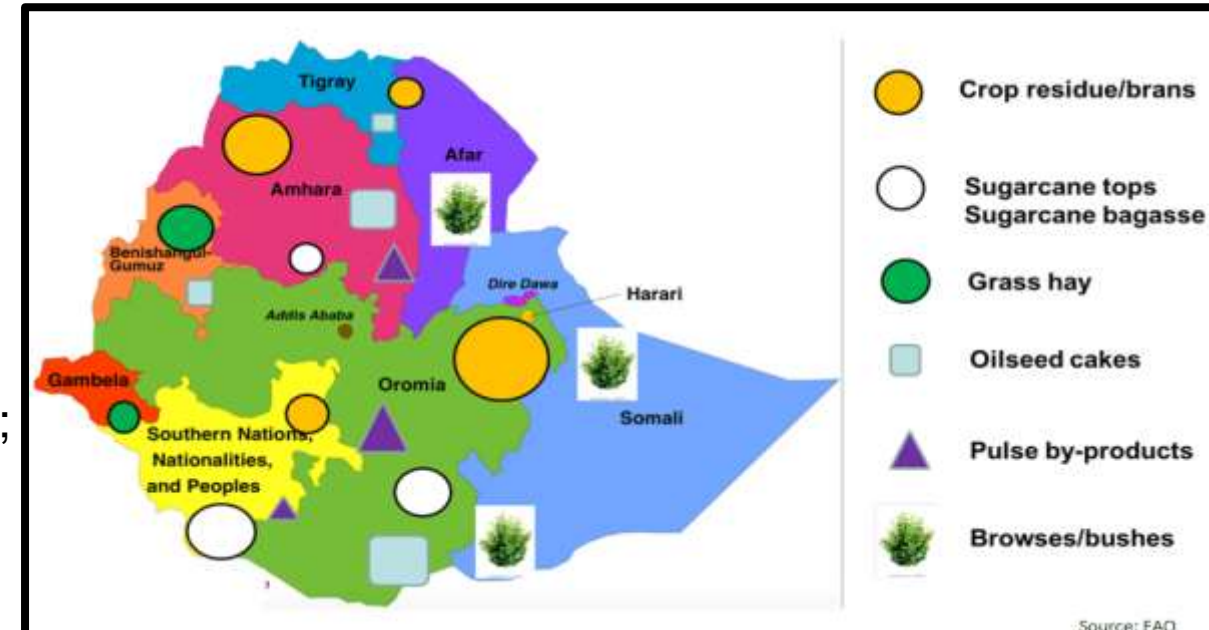
17%: USD16.5 Mill

IRR

23%

COST

USD 68 mill



3b. Animal feed production

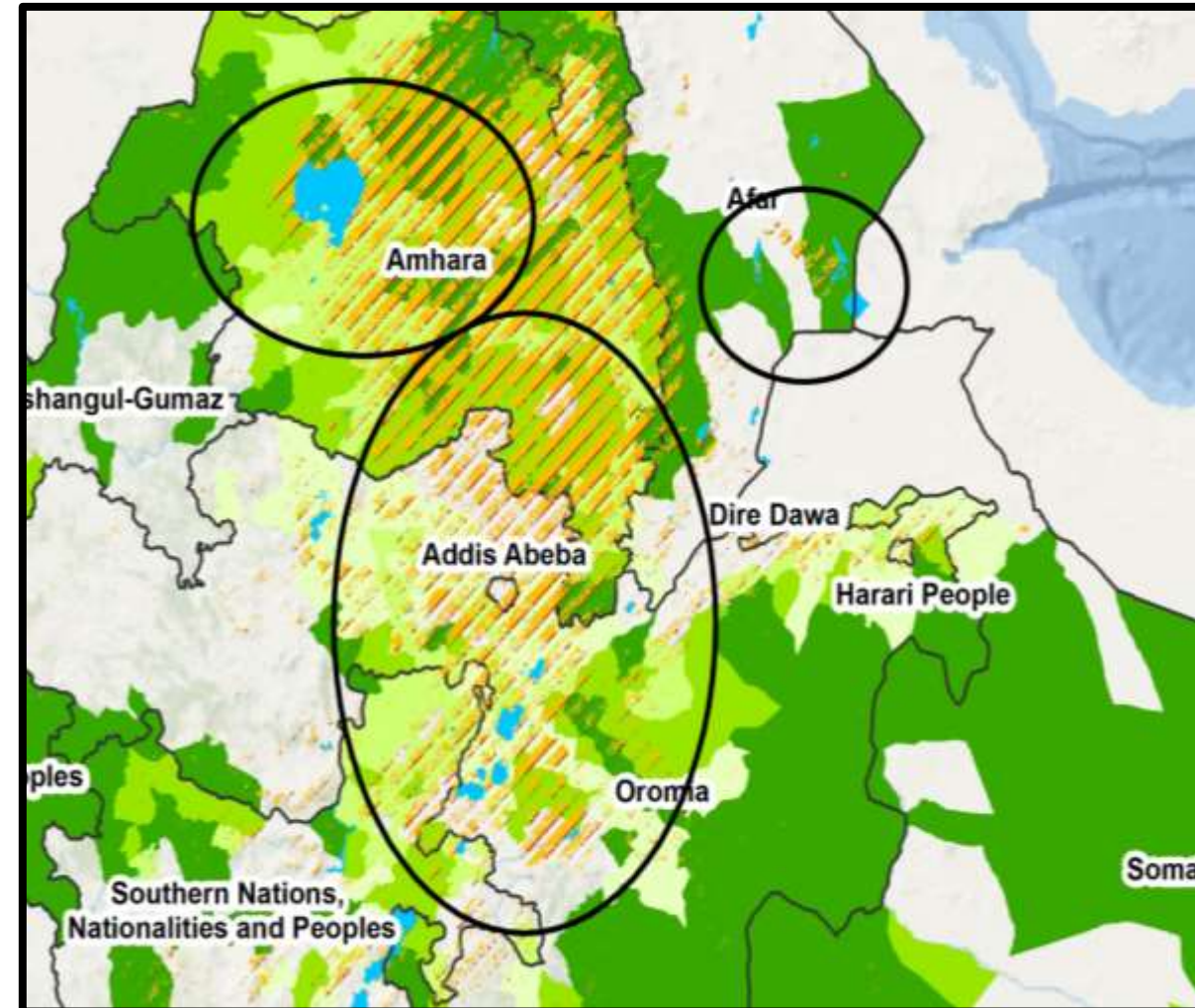


Commercial: commercial level silage production:

- Renting dry season land to produce maize stalk
- Out-grower farming model with contracts
- Securing land available for private investment

Key investment info (oats and corn silage)

| NPV | IRR | COST |
|--|---|---|
| <ul style="list-style-type: none">• 17%• USD137 Mill. | <ul style="list-style-type: none">• 43% | <ul style="list-style-type: none">• USD 90 Mill |



INVESTMENT PLAN



SUMMARY

US\$ 704.8 million
Investment Cost

29%
Avg IRR

Direct Beneficiaries
3 million
Farmers reached

Indirect Beneficiaries
9.6 million

3 Million
Jobs Created

US\$ 1,637
Income to farmers

43 million
tCo2-e sequestered

SOIL HEALTH

AGRICULTURAL LIMING

INV Cost: USD 299.2 million

NPV (17%): 4.5 million

IRR: 23%

ORGANIC FERTILIZER PRODUCTION

INV Cost (USD): 133 mil.

IRR : 25

NPV (17%): 1.9m

Jobs: 440

1

BENEFITS OF soil health

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

MECHANIZATION

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 LEASING

INV Cost (USD): 25 million

IRR : 20%

NPV (17%): 0.8m

Jobs: 250

INV Cost (USD): 7.7 million

IRR : 49%

NPV (17%): 0.08m

Jobs: 3234

BENEFITS

USD 612 million income

4.4 m farmers

Income to farmers:

tCo2-e sequestration

2

ANIMAL FEED

COMPOSITE FEED FACTORY

INV Cost (USD): 68 million

IRR : 23 %

NPV (17%): 17m

Jobs: 250

BENEFITS:

USD 307 million income

258,000 farmers

tCo2-e sequestration

COMMERCIAL SILAGE PRODUCTION

INV Cost (USD): 90 million

IRR : 43 %

NPV (17%): 137m

Jobs: 1398

BENEFITS:

USD 2.1 bn million income

1.8m farmers

tCo2-e sequestration

3

