

Ethiopia

GMI – Municipal Solid Waste Subcommittee Country Update

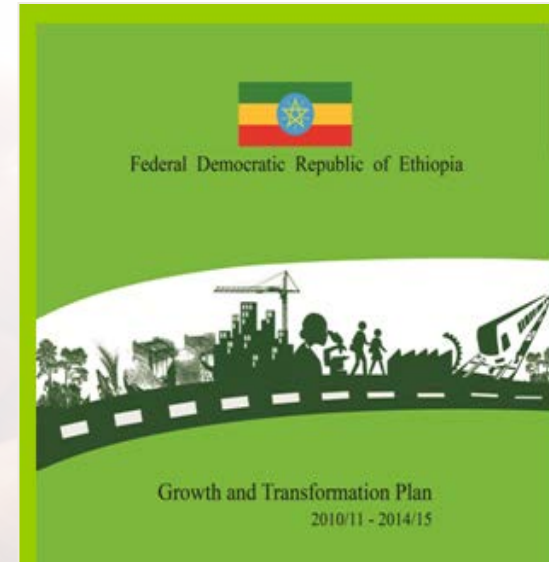


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Climate Resilient Green Economy

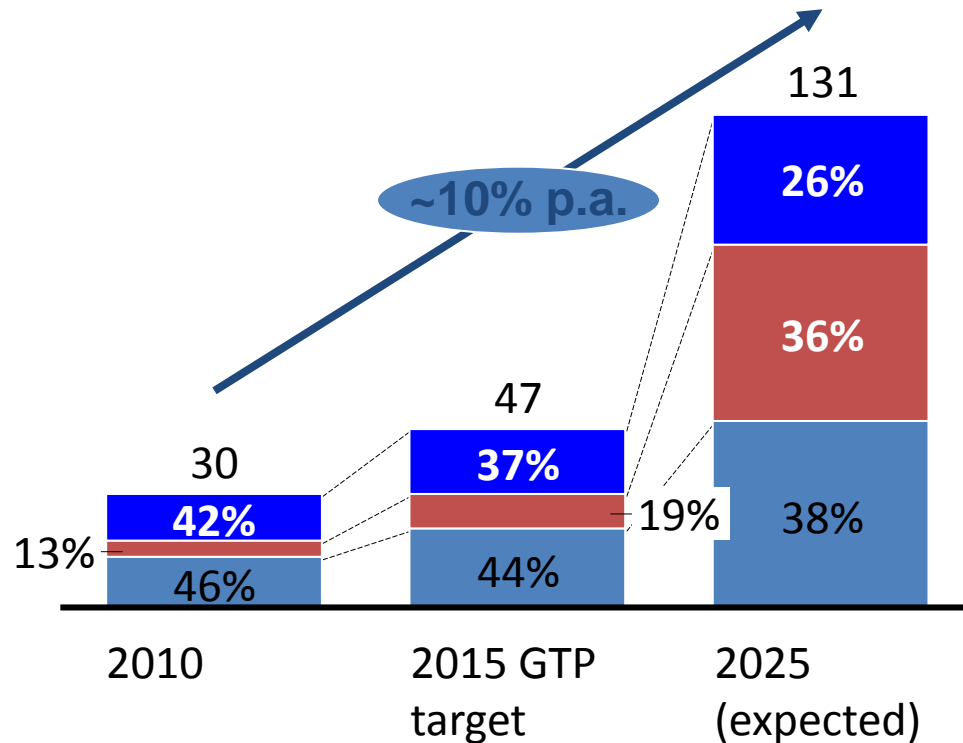
- **Ethiopia: a middle income country by 2025**
- **Net emission of GHGs to become zero/ neutral**



Middle Income Status by 2025

GDP, USD billions

■ Agriculture
■ Industry
■ Services



Key transitions

- Diminishing weight of agriculture from 42% to 26% of GDP
- Migration from agriculture jobs to services and industry
- Attainment of middle-income status before 2025

Population
mln

80

91

117

GDP p.c.
In USD

380

520

1,170

Seven Sub-Sectors

Goal of the sectors and implications

- 1 **Power** 
 - Build generation capacity to satisfy growing demand
- 2 **Gr. Cities** 
 - Reach economic growth targets as planned in the GTP
- 3 **Forestry** 
 - Economic growth of each sector will lead to higher emissions
- 4 **Soil** 
 - Economic growth of each sector will lead to higher emissions
- 5 **Livestock** 
 - Economic growth of each sector will lead to higher emissions
- 6 **Transport** 
 - Economic growth of each sector will lead to higher emissions
- 7 **Industry** 
 - Economic growth of each sector will lead to higher emissions

Contribution of CRGE

- **Enable** infrastructure development by developing strategy to **obtain financing**
- Develop green growth initiatives to **achieve GTP targets** while **reducing emissions**
- Provide essential analytics required to **secure carbon funding**
 - Estimate business-as-usual (BAU) emissions
 - Develop list of green growth interventions
 - Estimate abatement, growth contributions and feasibility of interventions
 - Develop implementation plans

Sub-sectors

Sectors identified for emissions sources & reduction targets

- Forestry (deforestation and degradation)
- Livestock (CH₄ from enteric fermentation and N₂O from manure left on pastureland)
- Soil (crops, fertilizers, manure)
- Transport [passenger (inner city, intra city, and international) freight (dry cargo, liquid cargo, construction and mining)]
- Industry (Chemicals & Agro processing & paper/pulp, textile & leather, cement, mining)
- **Green cities (solid waste, liquid waste, off-grid fossil fuel)**
- Power (conventional and renewable)

The strategy for a green economy is based on four pillars

Mt CO₂e abatement potential in 2030

Middle income country in 2025

Agriculture – Improving crop and livestock practices

- Reduce deforestation by agricultural intensification and irrigation of degraded land
- Use lower-emitting techniques
- Improve animal value chain
- Shift animal mix
- Mechanize draft power

90

Forestry – Protecting and growing forests as carbon stocks

- Reduce demand for fuel-wood via efficient stoves
- Increase sequestration by afforestation/ reforestation, forest management and area closure

130

Power – Deploying renewable and clean power generation

- Build renewable power generation capacity and switch-off fossil fuel power generation
- Geothermal is a high priority
- Export renewable power to substitute for fossil fuel power generation abroad

19¹

Industry, transport and Green Cities – Using advanced technologies

- Improve industry energy efficiency
- Improve production processes
- Tighten fuel efficiency of cars
- Construct electric rail network
- Substitute fossil fuel by biofuels
- **Improve waste management**

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Climate resilient green economy strategy

¹ Non-domestic abatement potential from power exports

Green Cities

- **Increase solid waste collection.**
- **Increase proper disposal mechanisms.**
 - **Landfills**
 - **Composting operations**
 - **Waste to Energy**
- **Increase recycling.**

NAMA

Waste management

- Reduce methane emission in the following cities
 - Addis Ababa
 - Mekele
 - Adama/ Nazreth
 - Bahir Dar
 - Dire Dawa
 - Hawasa
 - Harrar

And Kaliti liquid waste disposal center

Methane Action Plan

- Completed
- Identified challenges and opportunities
 - Lack of capacity
 - Rapid urbanization
- Future actions
 - CRGE – Green cities
 - Investment Plan

Addis Ababa – Repi Landfill

- **Closure of 60% underway**
- **Initial plan flaring**
 - **CDM (PDD and registration funded from UNDP)**
- **New plan**
 - **Waste to energy Development of NAMA covering all major cities**

Addis Ababa Repi



Awasa Landfill

