



INTERNATIONAL CLIMATE INITIATIVE (IKI)



Climate finance mobilization in support of Ethiopia's NDC

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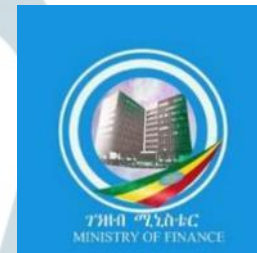


Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag



Clean Cooling
COLLABORATIVE



Agenda

- **Green Climate Fund proposal for Solar Water Pumping in Ethiopia**
- **Ethiopia's Carbon Market portfolio and Article 6 readiness**
- **Establishing Access to Sustainable Cooling**



Project overview and context

Perspectives and SSN have supported the Ministry of Finance and Ministry of Irrigation & Lowlands in preparing a **Funding Proposal to the Green Climate Fund** (submitted)

“Climate-resilient community access to safe water powered by renewable energy in drought-vulnerable regions of Ethiopia”

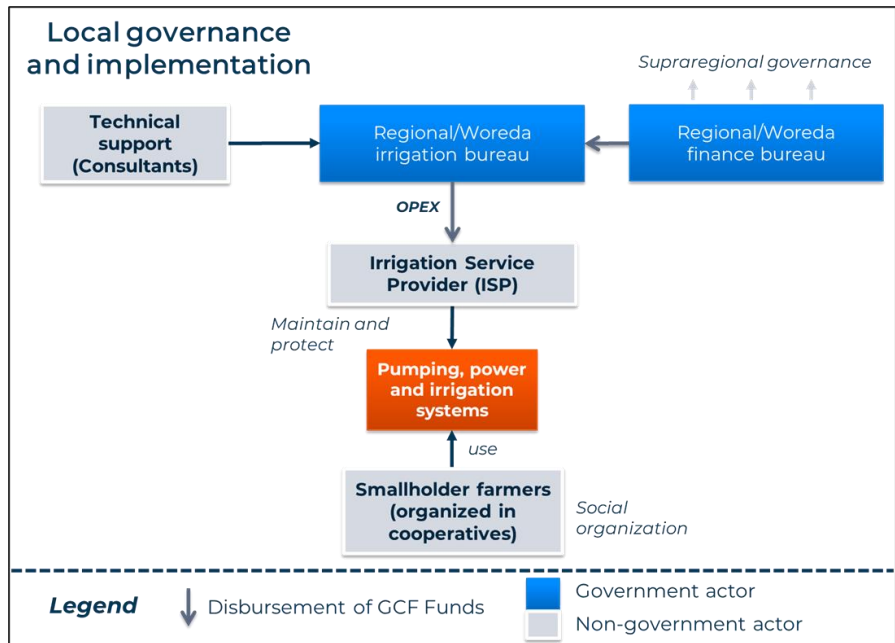
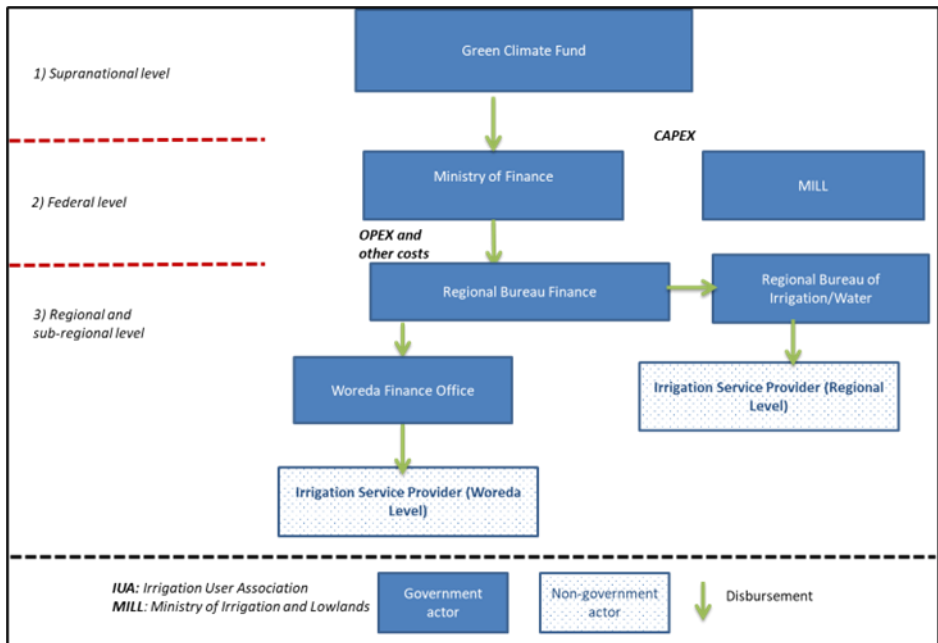
- **Project budget:** USD 50 million (\$45m GCF grant, \$5m GoE co-financing)
 - **Implementation period:** 7 years, with >20 years expected technical lifespan
 - **Key intervention:** solar water pumps (deep wells) and solar PV systems + enabling environment
 - **Target areas:** Borena Zone (Oromia) and Kobo-Girana/Raya (Amhara)
 - **Executing/implementing entity:** MoF, MILLS, MOWE + regional and local authorities, community organizations
 - **Current status:** Submitted
-

Main objectives of the GCF project

- **Strengthen** rural climate resilience through sustainable extraction of water from deep aquifers with solar PV in drought-prone intervention areas
- **Reduce** CO2 emissions by avoiding the use of diesel generators to pump water
- **Enhance** productive use of water to increase local food security
- **Boost** sustainable agriculture, long-term employment and farmer incomes
- **Achieve** gender equity access to water under fair and locally managed benefit distribution systems



Local governance and flow of funds



Article 6 carbon markets

Ethiopia CDM profile

Activity Type	Sub-sector	No. of PA	No. of PoA	No. of CPA	kCERs issued	Projected 2020 kCERs	Potential 2021-2025 ktCO ₂ e
Overall		2	6	16	1119	4840	4145
Landfill gas	Landfill flaring	1			-	735	234
Methane avoidance	Wastewater	1				285	713
Reforestation	Reforestation	(1)*			(255)*		
EE Households	Stoves		4	11	731	3,233	2412
	Solar lamps		1	3	128	215	317
Biomass energy	Gasification of biomass		1	2	34	371	469

Voluntary Standards activities



■ Agriculture/forestry ■ Energy Efficiency
■ Solar Thermal ■ Other

Gold Standard (GS)

- 33 GS activities (29 VPAs, 4 standalone projects) with a total issuance of 973,197 credits
- GS issued 790,877 verified emission reductions (VERs); 24,458 Certified Emission Reductions (CERs); and 157,862 issued Planned Emission reductions (PERs).
- 62% of GS credits are in the energy efficiency sector.
- GS has 818,388 pre 2020 vintage credit issuances from 33 activities; and a total of 154,809 post 2020 vintage credit issuances from 24 activities

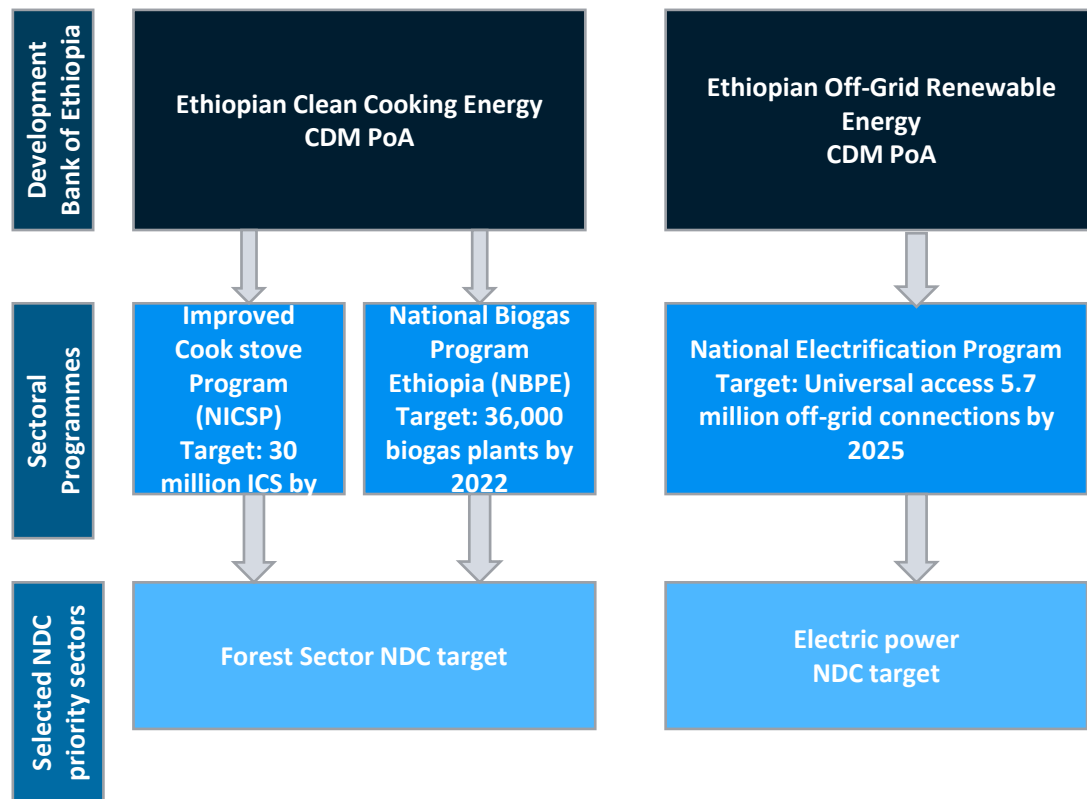
VERRA/Voluntary Carbon Standard (VCS)

- 1 registered project Bale Mountains Eco-region REDD+ project, with no issuance yet

Plan Vivo

- 1 registered project, with 73,600 credits issued.
- Plan Vivo has 49714.25 pre-2020 vintage credit issuances and 23963.75 post 2020 vintage credit issuances from their registered project

Art. 6 contribution to Ethiopia's NDC



- In its updated NDC, Ethiopia has expressed a strong interest in participating in market-based mechanisms and intends to sell ITMOs to finance achieving the conditional mitigation targets.
- Ethiopia emphasizes the importance of environmental integrity
- Initial assessment of carbon market potential across sectors, going beyond carbon market pipeline
- Ethiopia leads the LDC Group in the Art.6 negotiations and Art.6.4 SB

Article 6 initiatives in Ethiopia

Article 6 readiness

- First steps towards establishing institutional framework for Art.6 participation and CDM transition

Article 6 piloting

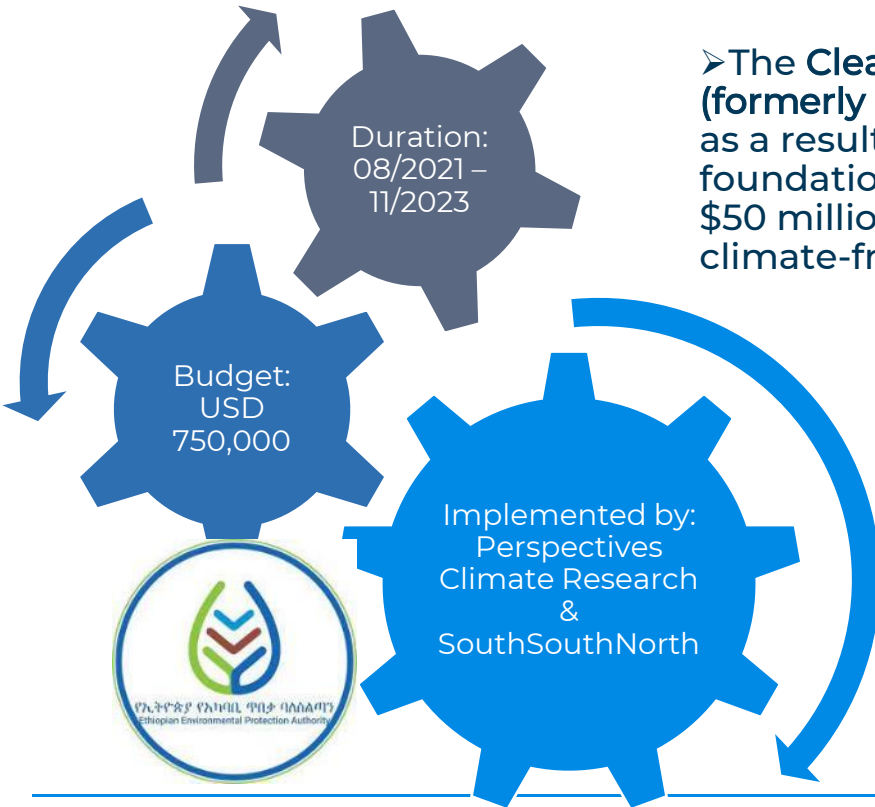
- In its updated NDC, Ethiopia has expressed a strong interest in participating in market-based mechanisms and intends to sell ITMOs to finance achieving the conditional mitigation targets.
- Bilateral cooperation Ethiopia and Japan: Joint Crediting Mechanism (JCM) since 2013
 - Three methodologies approved (2 renewable energy, 1 biomass combined heat and power)
- World Bank Carbon-Initiative for Development: Standardized Crediting Framework to existing Ethiopian CDM PoAs (biogas and off-grid renewable energy)
- Significant CDM transition potential (PoAs!), but also new projects
- ICAO CORSIA: Ethiopian Airlines is Africa's largest airline, there are several eligible activities CDM (8) and Gold Standard (12), VCS (1) activities

Access to Sustainable Cooling

Establishing Access to Sustainable Cold Chains



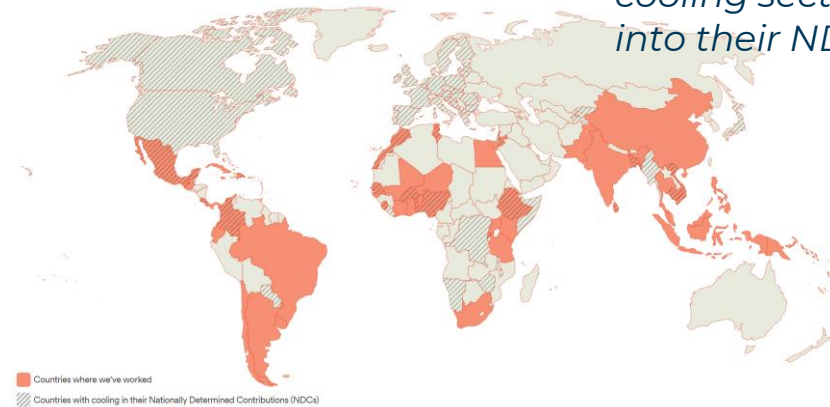
SOUTH
SOUTH
NORTH



➤ **The Clean Cooling Collaborative (formerly K-CEP)** was launched in 2017 as a result of leading climate foundations having pledged more than \$50 million for action on efficient, climate-friendly cooling



CCC supports a network of countries working towards integrating the cooling sector into their NDCs



Objectives of the project



Demonstrate the **technical and economic viability of climate-friendly and energy efficient cooling technologies** along prioritized value chains.



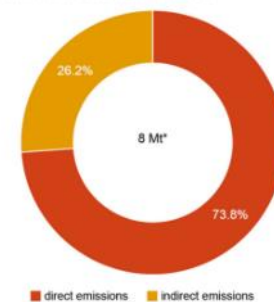
Create an **enabling environment for the rollout of sustainable cooling and make net-zero cooling accessible.**



Promote the **inclusion of cooling in Ethiopia's updated NDC.**

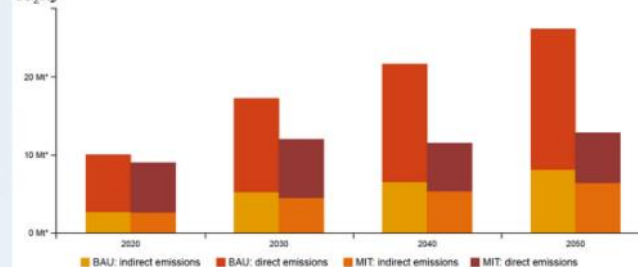
The cooling sector and its mitigation potential in Ethiopia

Indirect and direct emissions 2014



(Green Cooling Initiative, 2020)

Indirect and direct emissions in business-as-usual and mitigation scenario in 2020 and 2030 (in Mt CO₂e_q)



* in CO₂ equivalents; BAU = Business-as-usual; MIT = Mitigation scenario

(Green Cooling Initiative, 2020)

1) *Refrigeration in the health sector*

- Solar-powered refrigerators and cold rooms at different administrative levels (e.g., health posts, hospitals and regional centres); operated with natural refrigerants
- Refrigerated vehicles to deliver the vaccines and medicines

2) *Cooling in agro-industrial parks (shared cold rooms)*

- Solar-powered cold rooms at different levels of the fruit and vegetables value chain (reduce food waste, enhance value); operated with natural refrigerants
- Size can vary between a volume of 20 m³ up to several hundred m³

3) *Cold chains in the dairy sector*

- Refrigeration systems (on-/off-grid) at different levels of the dairy value chain; operated with natural refrigerants and powered by solar energy (rural areas)
- On-farm cooling, community chilling centres and refrigerated vehicles to store and transport milk and dairy products under appropriate conditions



Ameusegenallo – thank you!

