RWANDA's NDC

"Key targets on EELA"

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Outline

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- Financing Needs for Rwanda's NDC
- Mitigation Measure with required investments
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Overview of Rwanda's NDC

- As a Parties to the UNFCCC, Rwanda contribute to the ambitious goal of limiting temperature rise to 2^{o}C with efforts to reach 1.5^{o}C agreed under the Paris Agreement (UNFCCC, 2015).

- GoR revised its NDC to a more ambitious climate action agenda that features a 38% reduction of greenhouse gas emissions compared to business as usual by 2030, equivalent to an estimated mitigation of up to 4.6 million tonnes of carbon dioxide equivalent (MtCO2e).

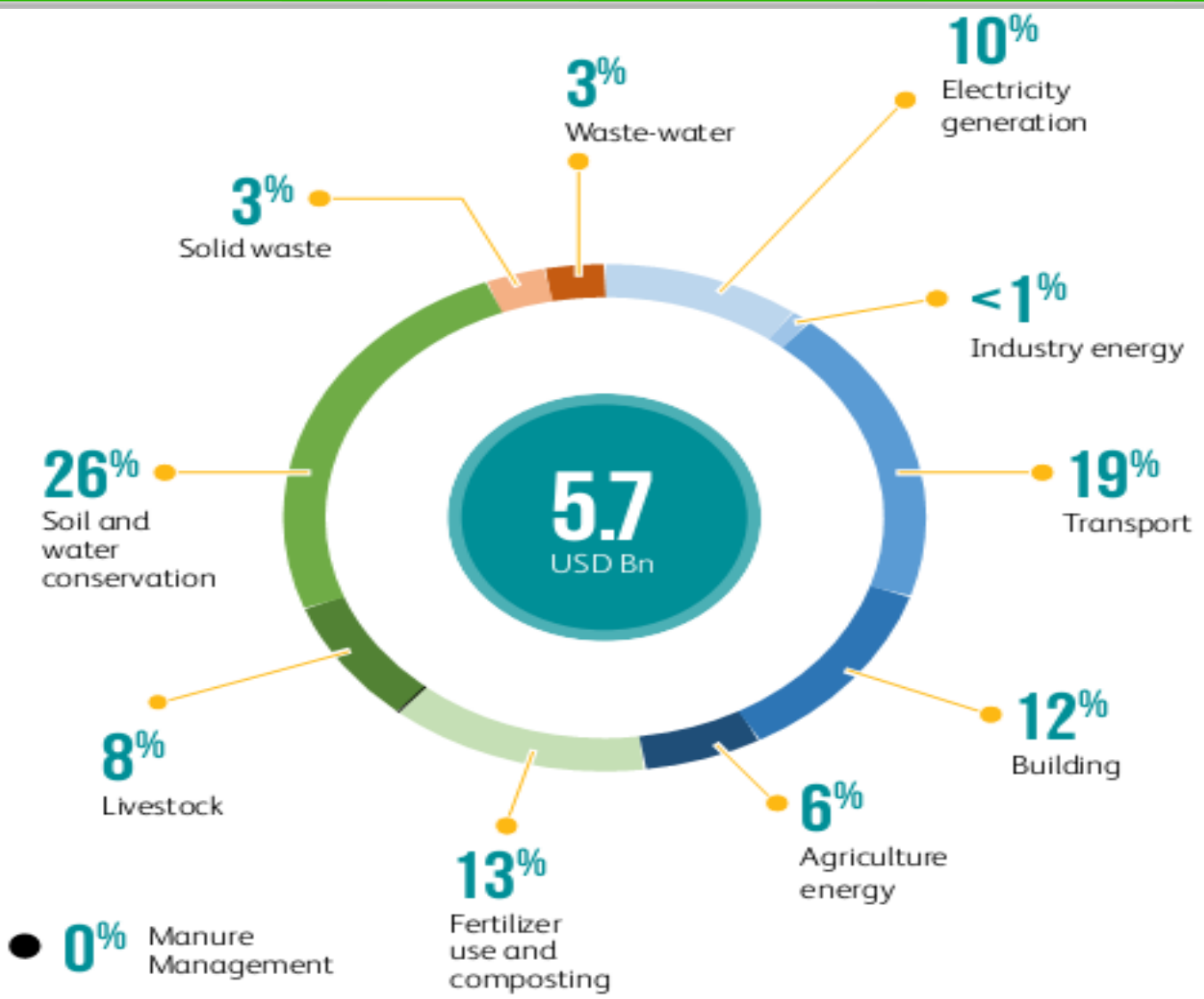
- The revised NDC presents the Government of Rwanda's update of its first Nationally Determined Contributions (NDCs) for mitigation and adaptation for the period to 2030.

Financing Needs for Rwanda's NDC

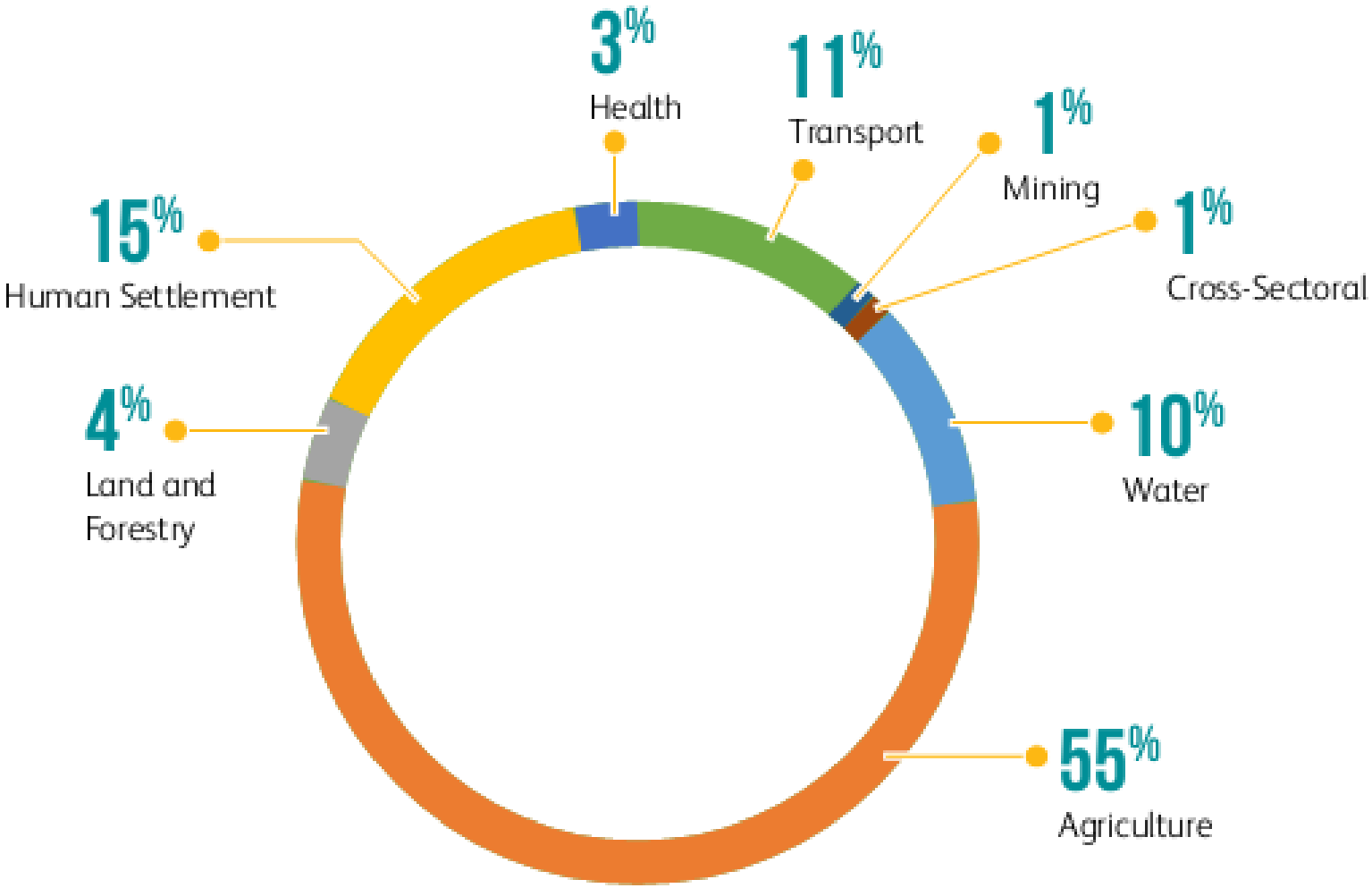
Funding requirement totaling to around 11 billion USD (5.7 bn USD for mitigation measures and 5.3 bn USD for adaptation measures).

USD million	Unconditional	Conditional	Grand Total
Mitigation measures			
2020-2025	1,057	1,754	2,811
2025-2030	953	1,912	2,866
Mitigation Total	2,010	3,667	5,677
Adaptation measures			
2020-2025	916	1,374	2,290
2025-2030	1,229	1,844	3,073
Adaptation Total	2,145	3,218	5,364
Combined Total	**4,155**	**6,885**	**11,041**

Mitigation Measure with required investments



Adaptation Measure with required investments



Key mitigation measures with EELA targets: Energy

Unconditional measures (domestic financing)		Description	Implementing entities
Electricity generation	Grid-connected hydropower generation	56.75 MW large hydro capacity (capacity > 5 MW), 24.5 MW small and mini hydro projects (capacity <5MW) and 75 MW regional projects by 2030.	MININFRA (REG, EDCL)
	Solar street lighting	Installation of solar lighting and LED systems to replace high-pressure sodium (HPS) lamps for street lighting and public spaces within populated areas and main roads by 2024.	MININFRA, MINICOM (REG, EDCL)

Key mitigation measures with EELA targets: Energy (cont'd)

Unconditional measures (domestic financing)		Description	Implementing entities
Manufacturing industry	Energy efficiency in agro-processing	A range of energy efficiency measures focused on reducing firewood and electricity consumption in the coffee and tea sector.	MINICOM (NIRDA, NAEB)
	Climate compatible mining	Phasing out of diesel gensets for on-site electricity consumption, to be replaced with grid and/or on-site renewable power production.	MOE (RMB, mining companies)
	Efficient brick kilns	Phasing out use of clamp kilns, and applying energy efficiency measures in the brick manufacturing industry.	MININFRA (RHA, REMA, RFA, brick companies)
	Energy efficient cement production	Use of waste heat recovery (WHR) and increased use of rice husks as fuel within clinker production.	MINICOM, MOE (REMA, CCL)

Key mitigation measures with EELA targets: Energy(cont'd)

Unconditional measures (domestic financing)		Description	Implementing entities
Transport	Vehicle emissions standards	Measures introduced to increase vehicle emissions performance of national vehicle fleet, including tax incentives and scrappage of older vehicles, and inspection. *Reduction of GHG and local emissions from gasoline and diesel use*.	MININFRA, MINICOM (RTDA, REMA)
Buildings and agriculture	Efficient lighting in buildings	Further dissemination of CFL and LED lamps in residential, commercial and institutional buildings. *Supported by government subsidies and VAT exemptions on energy saving lamps. Reduction of grid-based GHG emissions*.	MININFRA (REG, RHA)

Key mitigation measures with EELA targets: Energy(cont'd)

Unconditional measures (domestic financing)		Description	Implementing entities
Buildings and agriculture	Efficient cook stoves	Dissemination of modern efficient cook stoves to 80% of the rural population and 50% of the urban population by 2030, *achieving a more sustainable balance between supply and demand of biomass, and reducing firewood and fossil energy consumption for cooking*.	MININFRA, MOE (EDCL, RFA, FONERWA)
	Solar pumping for irrigation	Use of solar water pumping systems for irrigation within agricultural production *to replace diesel pumps, displacing fossil fuel use and associated GHG emissions*.	MININFRA, MINAGRI (RAB, RWRB)

Key mitigation measures with EELA targets: Energy(cont'd)

Conditional measures (external financing)		Description	Implementing entities
Electricity	Solar mini-grids	68 MWp of solar mini-grids to be installed in off-grid rural areas by 2030, as reflected in the Rural Electrification Strategy. *Displacement of traditional biomass fuels, diesel and kerosene for domestic energy use.*	MININFRA (REG, EDCL)
Transport	Public transport infrastructure	Wide range of measures including bus rapid transport (BRT) project, bus lanes, non-motorised transport lanes, and other modal shift projects contained in the Transport Sector Strategic Plan as part of the NST1.	MININFRA (RTDA, REMA, RURA, CoK, transport operators)
	Electric vehicles (EVs)	The e-mobility programme plans for the phased adoption of electric buses, passenger vehicles (cars) and motorocycles from 2020 onwards, resulting in *displaced conventional vehicle sales, transport fuel imports and associated GHG emissions*.	MININFRA (RTDA, REMA, RURA CoK, transport operators)

Key mitigation measures with EELA targets: Energy(cont'd)

Conditional measures (external financing)		Description	Implementing entities
Buildings and agriculture	Off-grid and rooftop solar electrification	Off-grid solar and rooftop solar PV panels consistent with the ESSP targets of around 1,500,000 HH to be electrified through, equivalent to 250,000 connections per year. *Displacement of grid power and diesel consumption and associated GHG emissions*.	MININFRA (REG, EDCL, EUCL)
	Solar water heater (SWH) programme	Installation of solar thermal water heaters within urban residential buildings supported by use of loans and grants to subsidise purchase costs, *as part of the National Green Building Code minium compliance system*.	MININFRA (RHA, EDCL)
	Promotion of on-farm biogas for energy	Increased use of on-farm anaerobic digestion of manure for bioenergy (bio-digestors).	MININFRA, MINALOC (REG, EDCL, local government, RAB)

Key mitigation measures with EELA targets: Industrial Processes and Product Use (IPPU)

Unconditional measures (domestic financing)		Description	Implementing entities
Clinker and cement production	Increased pozzolana use in cement	Increasing the share of volcanic pozzalanas used within national cement production beyond current cement-to-clinker ratio of 0.7, with target for an incremental 5% substitution of clinker with pozzolana through 2030. *Reduced clinker production and associated calcination process CO2 emissions.*	MOE, MINICOM (REMA, CCL)
Fluorinated gases substitution	Fluorinated gases substitution	Gradual substitution of F-gases by less polluting substitutes, implemented as part of Rwanda's commitments to the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer. *F-gases not to exceed the following percentages: (a) 2020 to 2024: 95%; (b) 2025 to 2028: 65%; (c) 2029 to 2033: 30%.*	MOE (RSB, REMA, private sector)

Key mitigation measures with EELA targets: Waste

Unconditional measures (domestic financing)		Description	Implementing entities
Solid waste	Landfill gas utilization	Extraction and utilization of landfill gas (LFG) for power generation in connection to semi- or fully-controlled landfills for urban areas.	MININFRA, MINALOC (RURA, REMA, CoK/ municipal and local government, WASAC)
	Waste-to-energy (WtE) plants	Development of WtE plants in Kigali and other urban areas through energy recovery options other than LFG.	
	Aerobic composting	Development of commercial scale aerobic composting systems for agricultural and forestry residue, manure, food processing, household kitchen and garden waste, and biosolids (organic solids from treated sewage).	
Waste water treatment and re-use	Waste-water treatment plants (WWTP)	Investment in wastewater treatment and reuse technology, reducing methane emissions from wastewater and providing a nutrient-rich digester that can be used as a fertilizer.	


THANK YOU