Renewable Energy Policy & Regulatory Frameworks for Enhanced Coherence of NDCs in Africa, 27 April 2018

International Renewable Energy Agency

## **Untapped Potential for Climate Action** - Renewable Energy in African NDCs

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### **Renewable energy in African NDCs**







Virtually all African countries mention renewables in their NDCs and 85% of them include quantified renewable energy targets

# NDC-based renewable energy targets for electricity generation and end-use sectors



Renewable energy targets in African NDCs by end-use application

Number of targets



# NDC-based renewable energy contributions for adaptation and targets for off-grid renewables



Countries with renewable energy action for adaptation and targets for off-grid renewables



NDCs offer an opportunity to capture the benefits renewables offer for climate resilient infrastructure, including improved energy access through off-grid renewable energy technologies

# **Countries with renewable energy measures for adaptation by sector**



ASIA, EUROPE AND

The role of renewables for energy access and security is widely recognised, followed by their contribution to a more sustainable water management



# Renewable energy measures for adaptation and resilience building in Africa



**Somalia** 

Includes quantified renewable

Mentions renewable energy

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#### Mali

Installation of over 100 MW of renewable energy, to reach 10% of energy mix by 2020

#### **Guinea-Bissau**

80% renewables share in energy mix

#### Togo

Renewables to reach 4% of the energy mix, including mini hybrid networks for rural electrification at an estimated cost of USD 30 million

#### Angola

100 MW of solar power in rural areas ("Solar Village" Programme) at an estimated cost of USD 150 million **Djibouti** Construction of an innovative desalination plant fueled by

renewable energy

# **Investment needed by 2030 to implement renewable energy targets in current NDCs**



Total investment needed by 2030 for renewable energy targets in NDCs



Source: IRENA, 2017

USD 225 billion will be needed by 2030 to implement the renewable energy targets set out in African NDCs, of which 44% for unconditional targets

### Leveraging private investment to implement renewable energy targets in African NDCs



Public finance needed by 2030 for renewable energy targets in African NDCs



Source: IRENA, 2017

Public finance should focus on crowding in private investment through the use of risk mitigation instruments and structured finance

### **Comparison of NDC targets with existing national plans and cost-effective potential**



Renewable energy components in African NDCs, in other existing national plans and strategies and cost-effective potential



Renewable energy targets in NDCs are often less ambitious than targets in national energy plans and strategies

African countries can progressively increase the ambition of renewable energy targets in the next round of NDCs to tap the full cost-effective potential

Source: IRENA, 2017



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### Thank you!

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