Climate, Land, Energy and Water systems (CLEWs)

Towards policy coherence, institutional collaboration and technical capacity for integrated implementation of the SDGs

Building Back Better Workshop

23 – 25 October 2019
Harare, Zimbabwe

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

- Introduction to ACPC
- The CLEWs approach
- Introducing the DA UNDESA-ECA-UNDP + Countries CLEWs pilot project
- Lessons learned and next steps

Introduction to ACPC

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

About ACPC

Sustainable, inclusive and climate resilient development in Africa

Influencing, strengthening and enabling the transition to climate-resilient development in Africa through responsive policies, plans and programmes towards transformed economies, healthy ecosystems and human wellbeing

African Climate Policy Centre (ACPC)

Generating and delivering knowledge for low-carbon and climate resilient economies in Africa

Research and analyses that support climate-informed social and economic development in Africa	Advisory services and technical assistance for implementation of the Paris Agreement	Human and institutional capacities for climate-resilient development planning, policies and practices	Convening spaces for dialogue, voice and agency for effective climate response and development	Customized knowledge products to effectively communicate climate solutions to key constituencies	Value for money in programme management, implementation, monitoring, evaluation and learning

Need to invest in timely and quality CIS and climate-informed analytical frameworks for mainstreaming climate change into development planning, and build capacity of decision makers to use CIS in order to design and implement effective low-carbon climate-resilient development pathways.

Africa's development agenda as set out in Agenda 2063 and the UN 2030 Agenda for Sustainable Development seriously at risk from the adverse impacts of climate change. But climate change challenges can be turned into low-carbon climate-resilient development opportunities that deliver transformative and equitable development outcomes on the continent

Flagships

- CCDA
- ClimDev-Africa
- CR4D
- AFRI-RES
- WISER
- Africa Pavilion

➢ CLEWs

Introducing the CLEWs approach

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Development challenges and the food-energy-water-climate nexus

- 900 million people are under-nourished
- 2 billion people lack food security
- 1.1 billion people without access to electricity; close to 600 million in Africa
- Almost 3 billion people without access to modern fuels or technologies for cooking/heating
- 900 million people lack access to safe water
- 2.6 billion do not have adequate sanitation
- Mounting concerns over climate change and other pollution related health and environmental hazards

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Need for support for integrated implementation of SDGs

Climate SDG 13

Land SDG 15

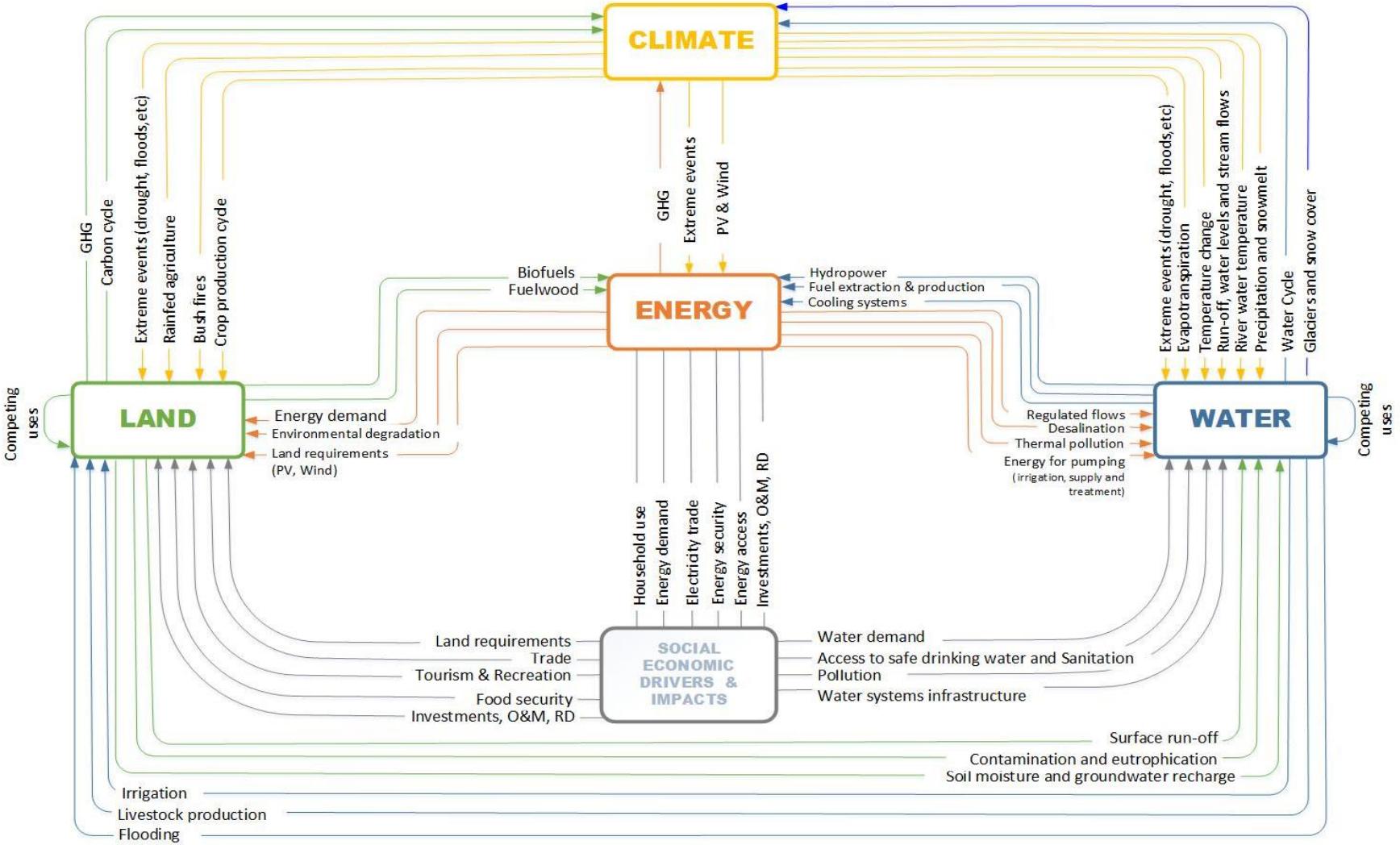
Energy SDG 7

Water SDG 6

systems approach

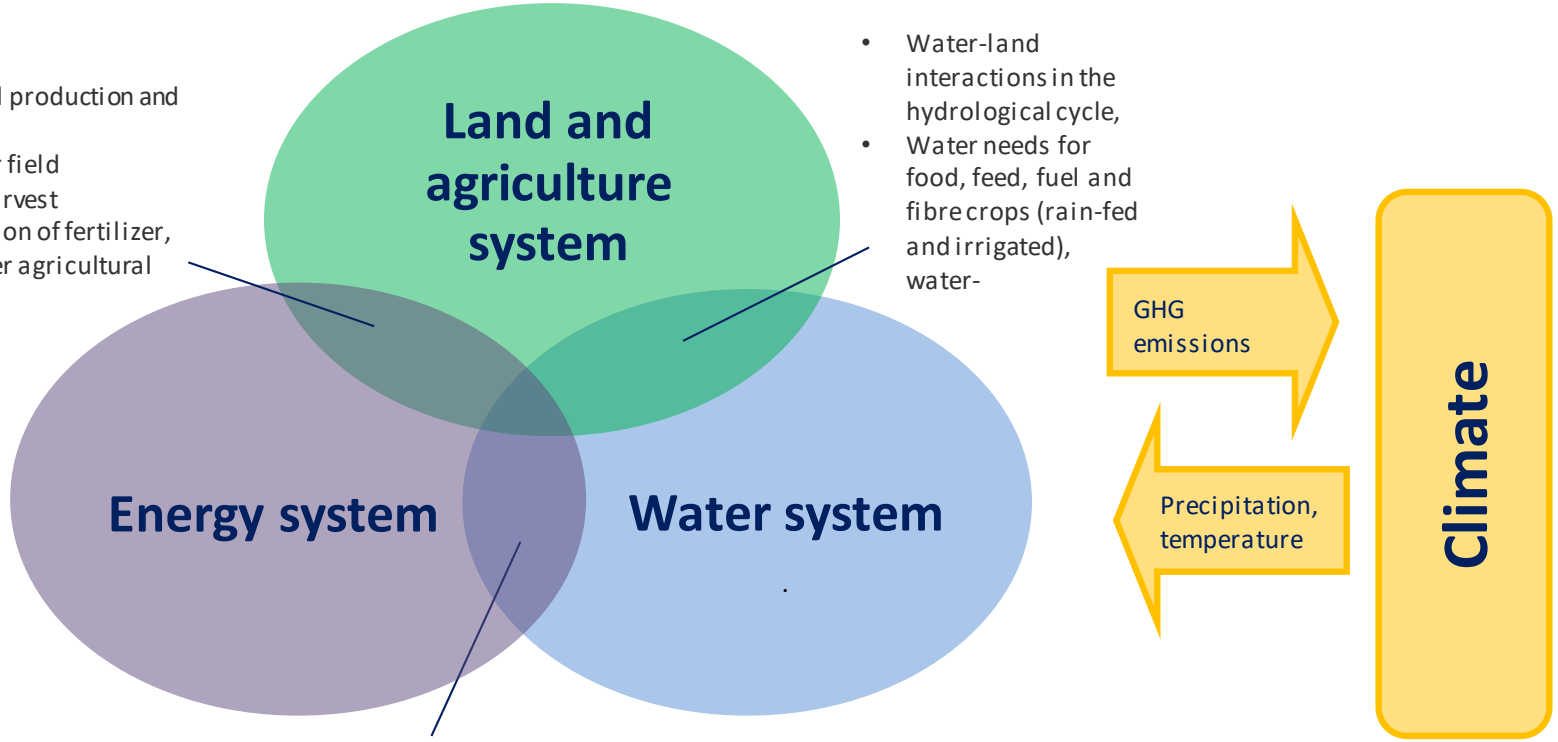
Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Interlinkages



Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Climate, Land, Energy and Water Systems (CLEWS)



Key weaknesses of sector policy design done in isolation

Policy formulation and assessments are quite often done in isolation by separate and disconnected institutional entities. This contributes to:

- Lack of communication and coordination
- Distrust
- Incoherent, counterproductive policy formulation and decisions
- High probability of inefficient use of scarce resources
- Absence of an institutional structure and buy-in for integrated analyses and planning

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

The CLEWs framework

- **Time horizon typically one or more decades**
  - Intended for longer term assessments and studies
- **Bottom-up analysis**
  - Representation of physical systems
  - Full value chain (e.g. “well to wheel” or “field to fork”)
  - Each asset described by its technical and economic characteristics
  - Identify cost-effective strategies subject to constraints
- **Scenario based analysis**
  - Explores alternatives, risks and uncertainties through scenarios and sensitivity analysis
  - Assesses the role of technology, technology choice and technology change
  - Tests policies and measures
- **Flexible**
  - Model user chooses system boundaries
  - Model user chooses level of detail
  - Model user chooses geographical coverage

The CLEWs framework

- The aim is ***not*** to:
  - Forecast or predict
  - Be prescriptive
- But rather to provide stakeholders with policy relevant:
  - Insights into key inter-linkages and dynamics of the energy-food-water nexus
  - Robust findings to support cohesion in policies and measures
  - Knowledge of risks and opportunities

The CLEWs framework

- **Provide policy relevant insights, information and quantitative estimates**
  - Can help identify interlinkages among sectors
  - Can help determine likely quantitative aspects of such interlinkages
  - Identify robust relationships (i.e. impacts/relationships that are true for a wide range of conditions/assumptions)
  - Identify key risks (impacts/relationships that are true under certain circumstances)
  - Explore technology and policy alternatives to mitigate unwanted outcomes (i.e. minimise impact of trade-offs)
  - Explore technology and policy alternatives to realize co-benefits (i.e. maximise synergies)

Introducing the DA UNDESA-ECA-UNDP + Countries CLEWs pilot project

Enhancing policy coherence for the SDGs through integrated climate, land, energy and water systems assessments and institutional strengthening in Africa

Pilot Country Projects: Cameroon, Ethiopia and Senegal

- Development Account project
- Support for national sustainable development strategies
- Policy coherence in SDG implementation
- Institutional collaboration at the technical development stage
- Institutional collaboration at implementation stage
- National ownership and leadership
- Institutional collaboration at UN (and other development partners) level
- Demand-led

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Project Team

High level officials

Provide strategic direction on integrated policies

Guide institutional reforms

Policymakers

Guide scenario building

Facilitate institutional-level engagements

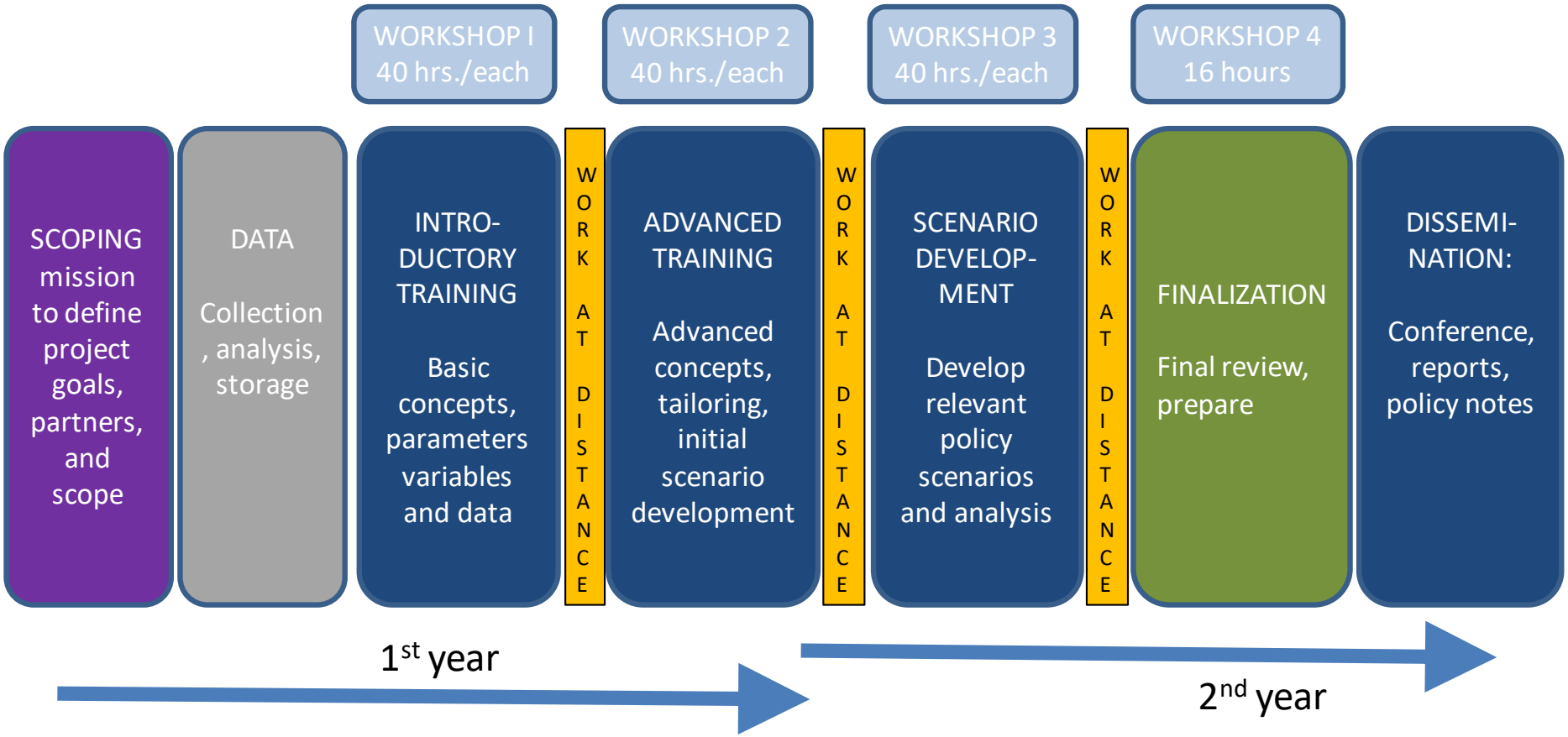
Transform model results into policy actions

Technical Experts

Modelers and data experts who will gather data, develop model, and write research report

Climate, Land, Energy and Water Systems (CLEWs) Approach to SDGs

Sequence of Activities



Cameroon

- Focal ministry:
  - **Ministry of Economy, Planning and Regional Development (MINEPAT)**
- Scoping mission
- Launch workshop

Ethiopia

- Focal ministry:
  - **Ministry of Water, Irrigation and Energy (MoWIE)**
- Scoping mission
- Launch workshop
- First main training

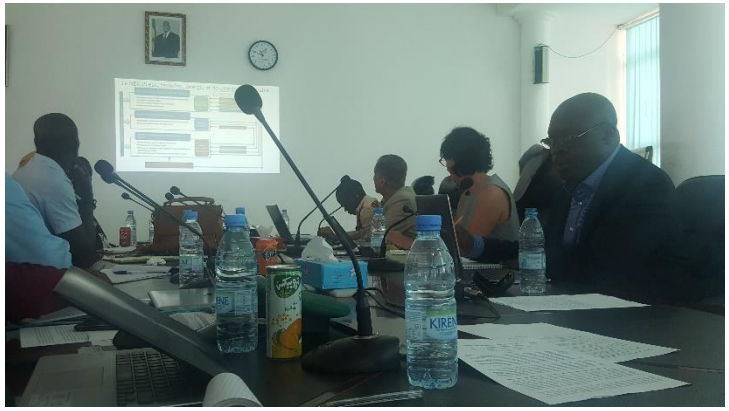




Senegal

- Focal ministry:
  - Ministère de l'Économie, des Finances et du Plan **(Direction générale de la Planification et des Politiques Economiques – DGPPE)**

- Scoping mission



Lessons learned so far from CLEWs pilot country projects and next steps

Key lesson to date and next steps

- Not paying attention to institutional arrangements leads to risk that policy options, based on the outcome of integrated quantitative assessments, are not embedded across government in a coherent way. Hence, key to address the link between the modelling and the institutional arrangements
- Increasing demand from other member states
- Need to extend and scaleup the pilot programme to more African countries, especially those countries where natural resource depletion arising from climate change and variability presents a real potential for conflict among communities over shared resources that are note planned and used in an integrated way.

Thank you

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AFRI-RES

The Africa Climate Resilient Investment Facility (AFRI-RES)

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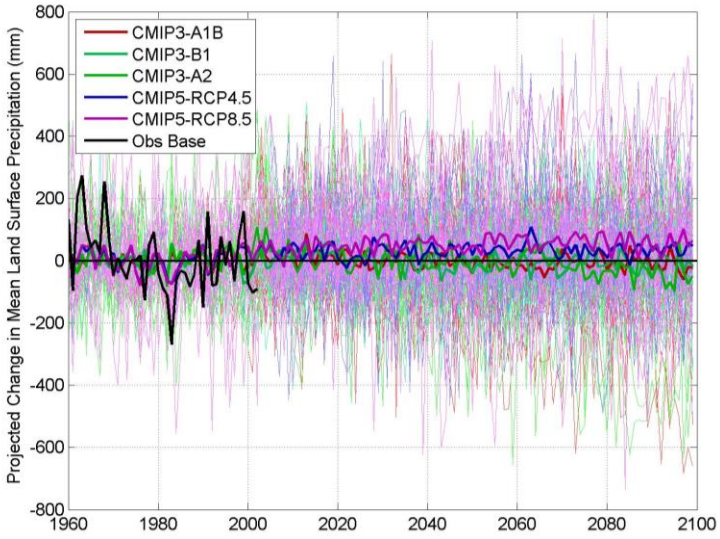
Challenge:

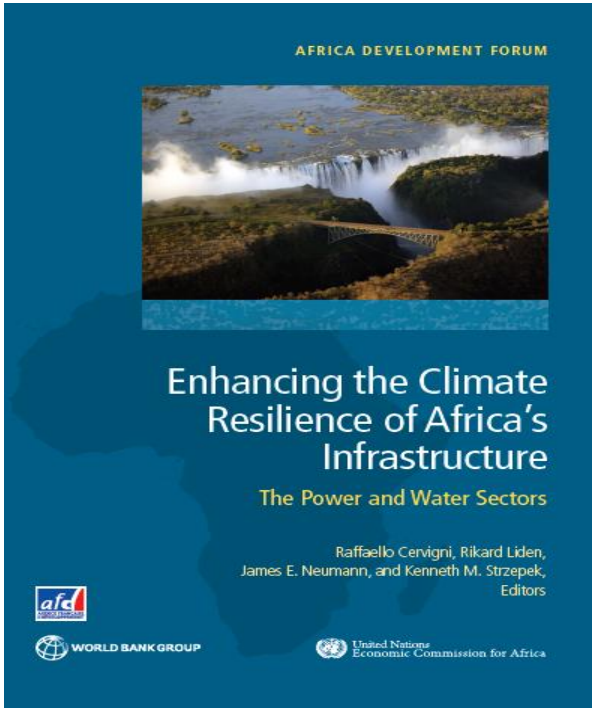
- How do you make "GOOD" investment decisions in climate-sensitive sectors TODAY
- So that the investment CAN DELIVER services and return on investment both in today's and TOMORROW'S CLIMATE ?

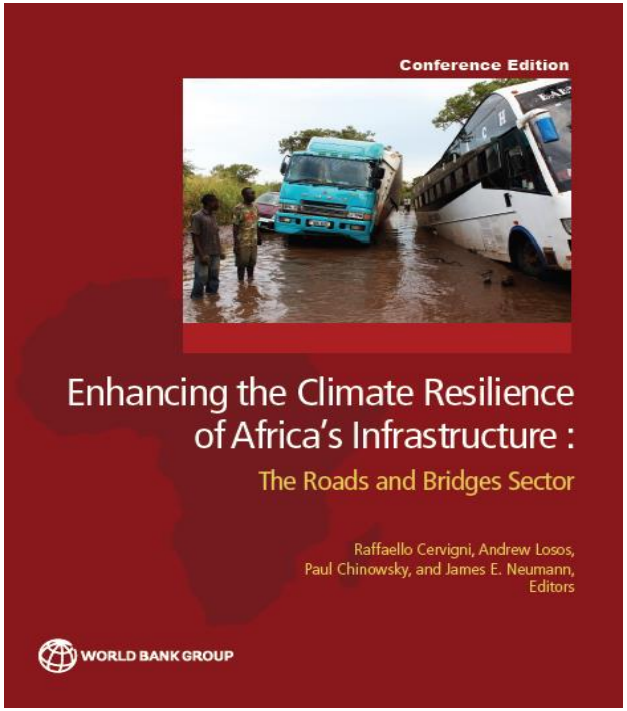
A very uncertain climate future



Doing it right means tackling the challenges and capitalizing on the opportunities of climate change

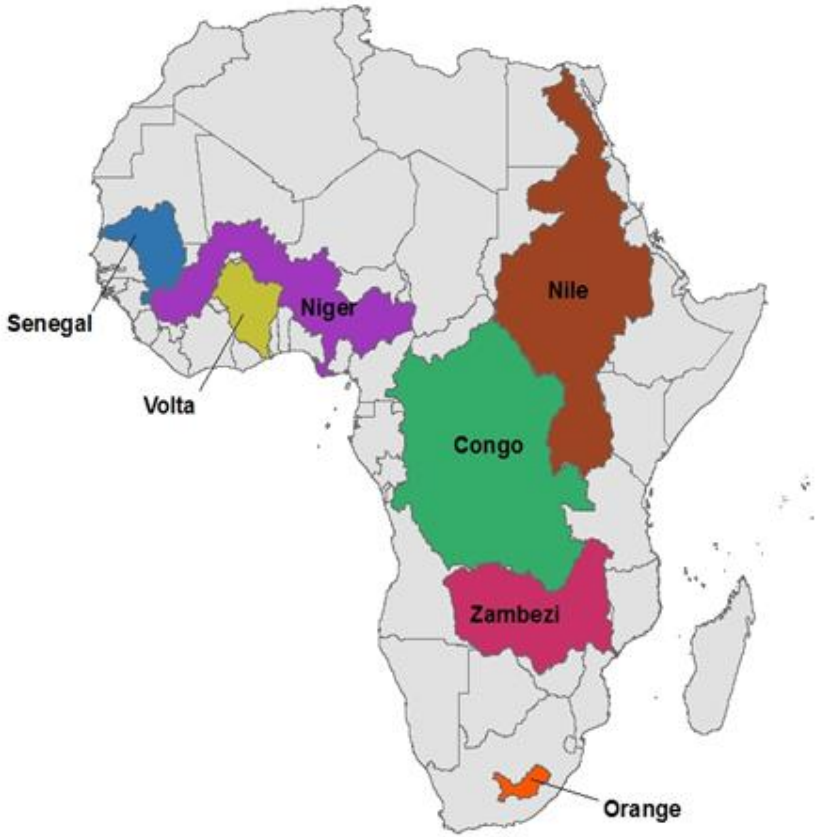
2 Joint World Bank / ECA Study on Enhancing the Climate Resilience of Africa's Infrastructure (ECRAI)



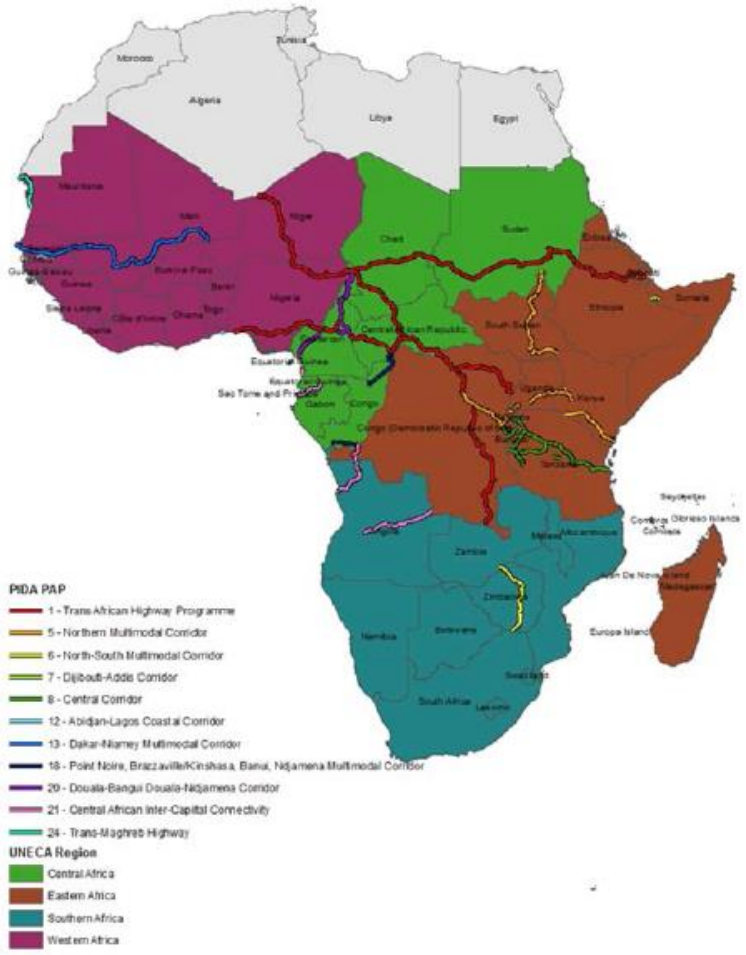


...focusing on PIDA and national plans

Seven River Basins



2.8 Million km of road investment



Some insights from the ECRAI studies:

Failure to integrate climate change in the planning and design of power and water infrastructure could entail:

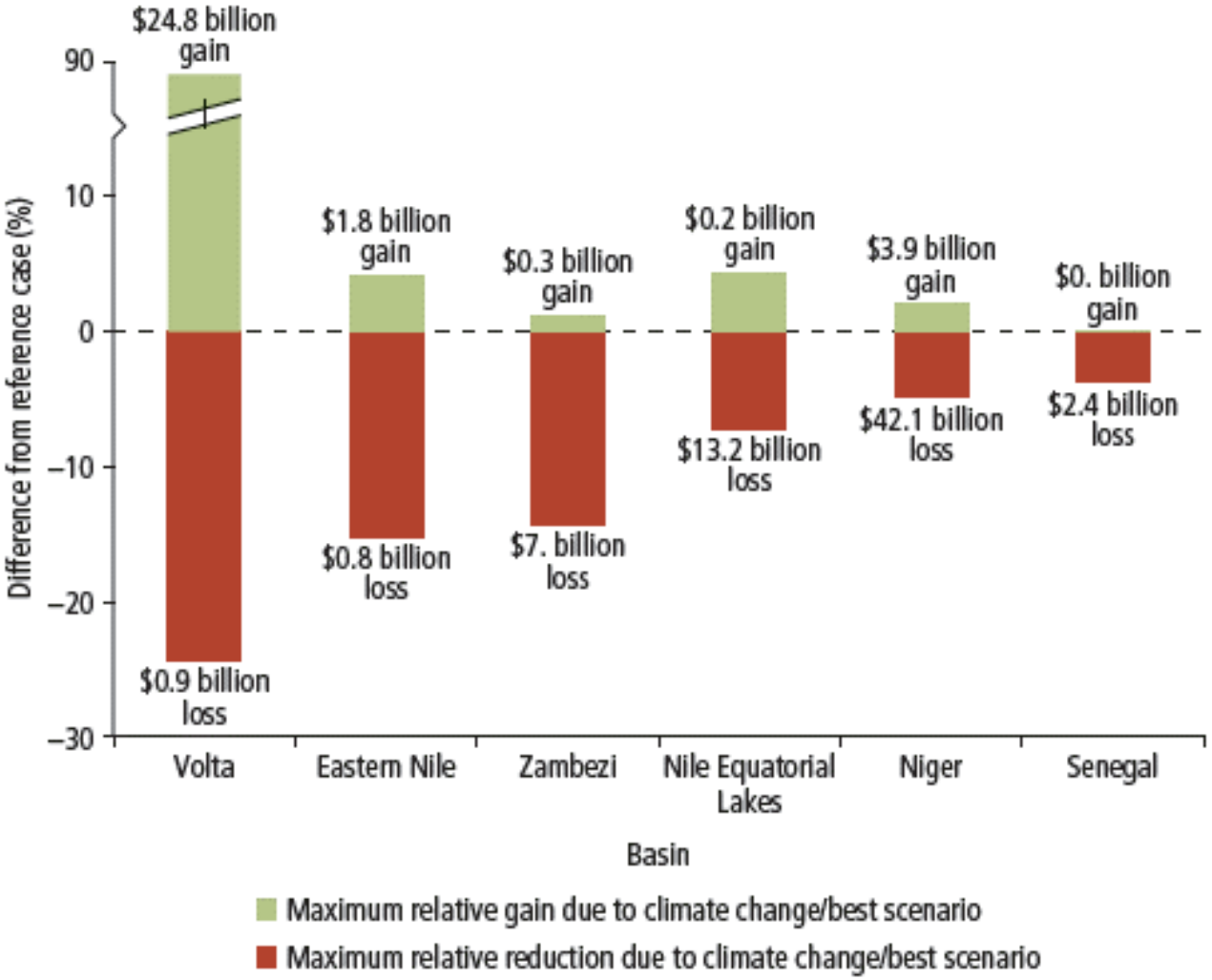
❖In the **driest climate scenarios**:

- losses of hydropower revenues of between 5 and 60 percent (depending on the basin)
- increases of up to 3 times the corresponding baseline values in consumer expenditure on energy

❖In the **wettest climate scenarios**:

- business-as-usual infrastructure development could lead to foregone revenues in the range of 15 to 130 percent of the baseline value

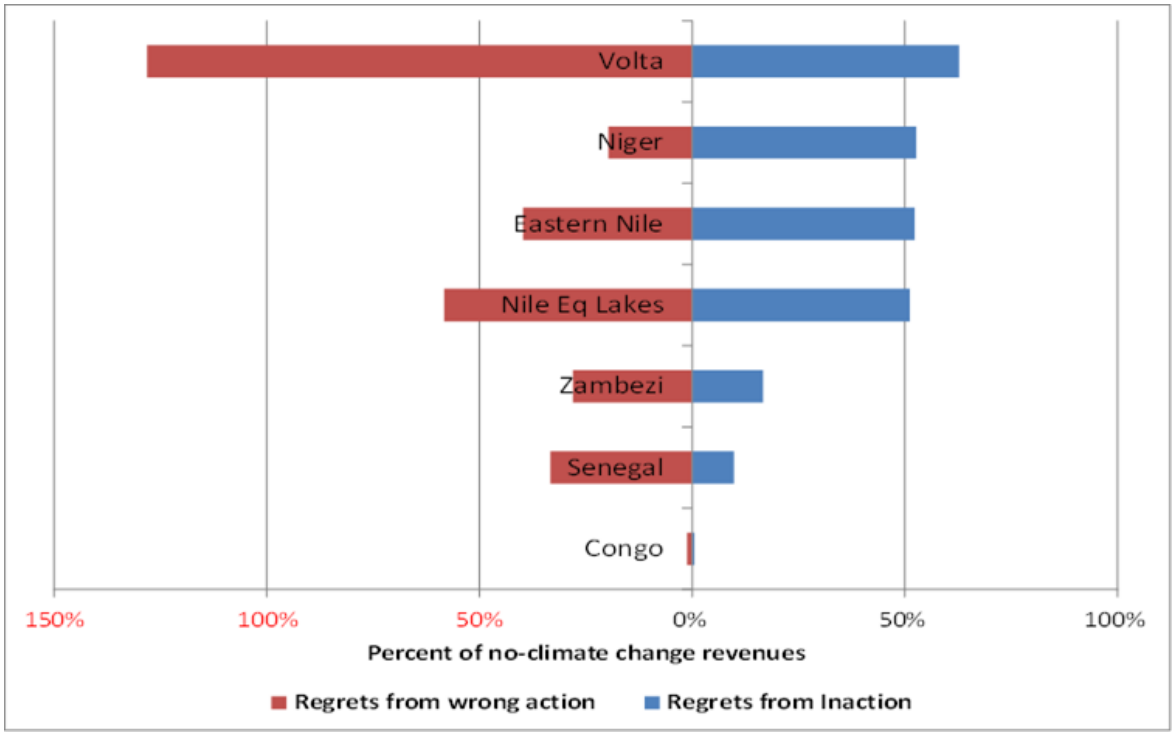
Changes in hydropower revenues from climate change (present value 2015 to 2050)



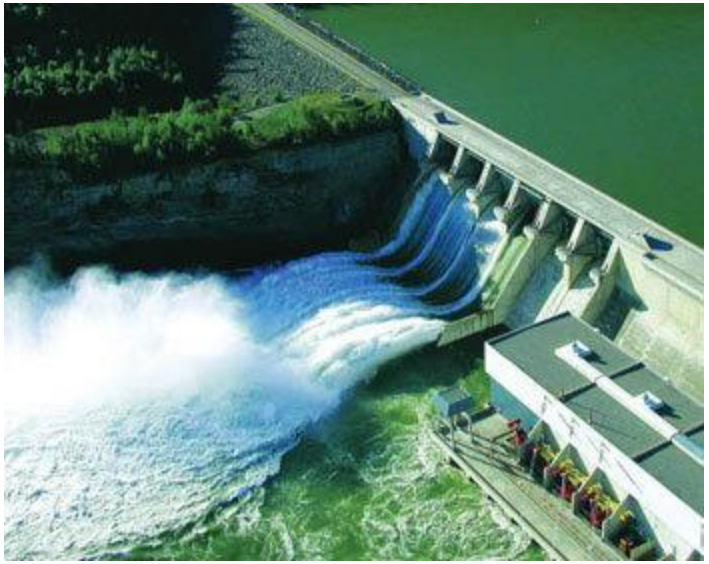
KEY ECRAI MESSAGE:

We need to adapt our road, power, irrigation infrastructure and make them more ***climate-resilient to ensure performance and return on investment***

...realizing that mal-adaptation can be as bad as no adaptation



How to adapt?



- Roads
  - Increased culvert size
  - Increased base thickness or quality
- Power
  - Number, size of turbines
  - Sizing of reservoirs
  - Storage / regulation
  - Hybrid, etc
- Irrigation
  - Sizing of schemes
  - Canal design

..but three things are needed

1) An accepted, common framework of analysis
2) Tools/ data
3) Concrete applications to learn from

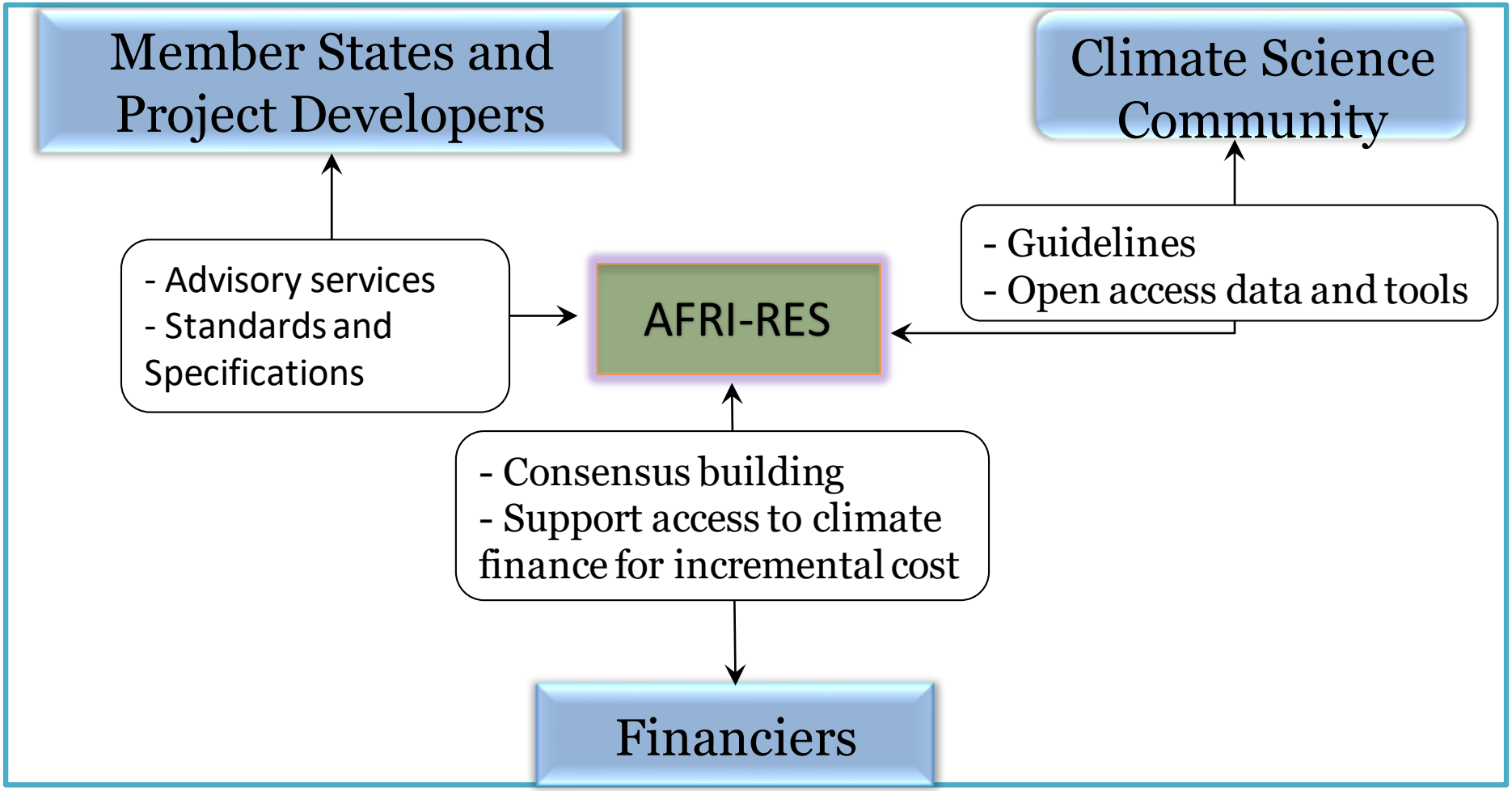
AFRI-RES: a solution to help address the challenge

AFRI-RES Objective:

Strengthen the capacity of African institutions (national governments, river basin organizations, Regional Economic Communities, power pools and development practitioners) to plan, design, and implement investments resilient to climate variability and change in selected sectors

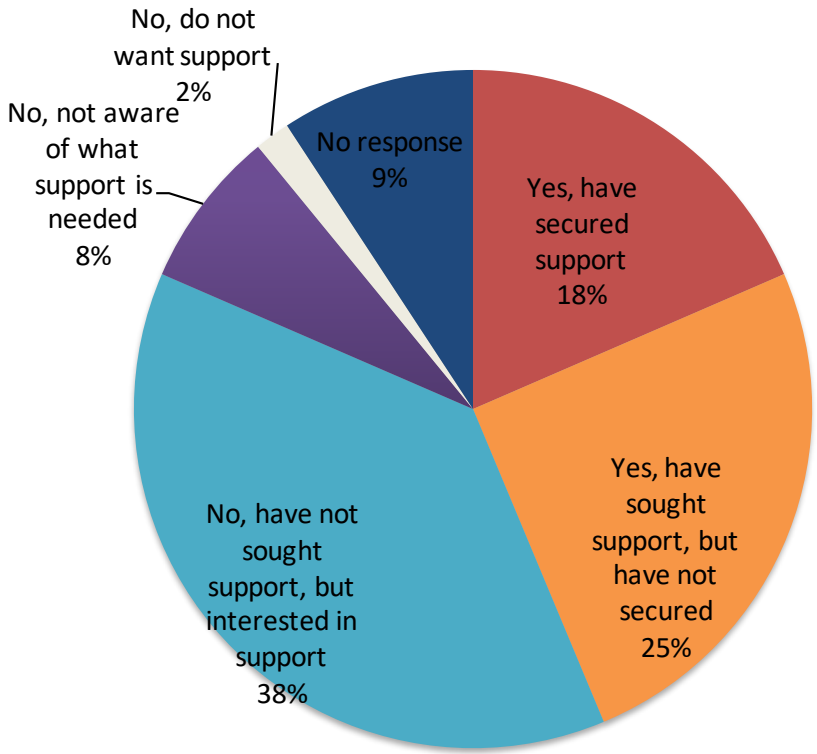
A progression from ECRAI

AFRI-RES VALUE PROPOSITION



Strong demand, largely unmet: practitioners survey

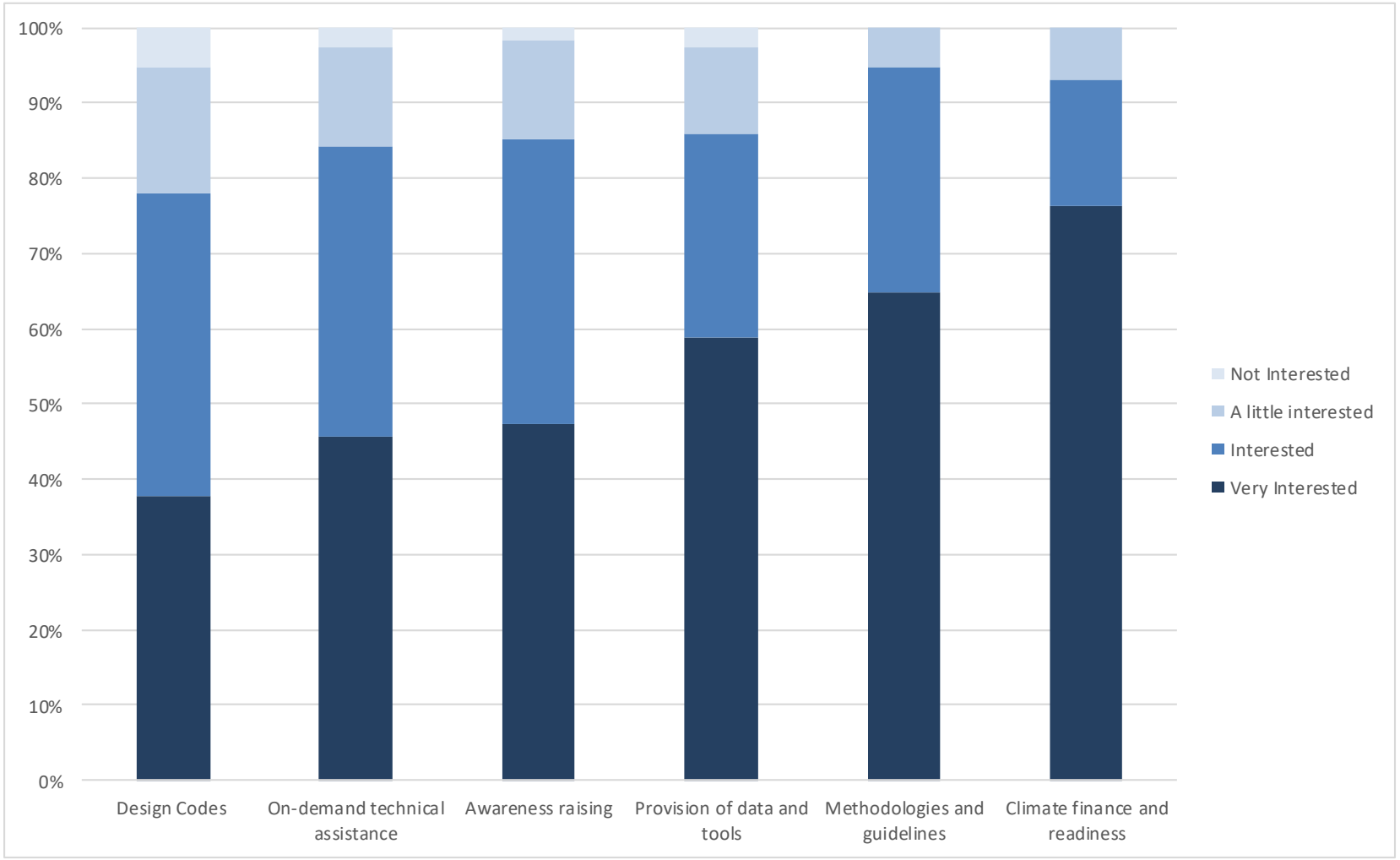
Have you sought support to integrate climate change considerations into planning and design of infrastructure?



Key observations

- 80% of respondents where interested in receiving support to integrate ICCPD services, but only 18% had secured support.
- 62% of respondents where interested or had actively sought support, but had not yet been able to secure it.
- While 8% where not aware or unable to specify what support they needed only 2% of respondents indicated they where not interested in receiving support.

Areas of work – Demand Mapping



AFRI-RES Activities

Upstream support

- Open data and knowledge platform
- Development of guidelines
- Compilation of good practices
- Support the emergence of standards in climate resilient project development

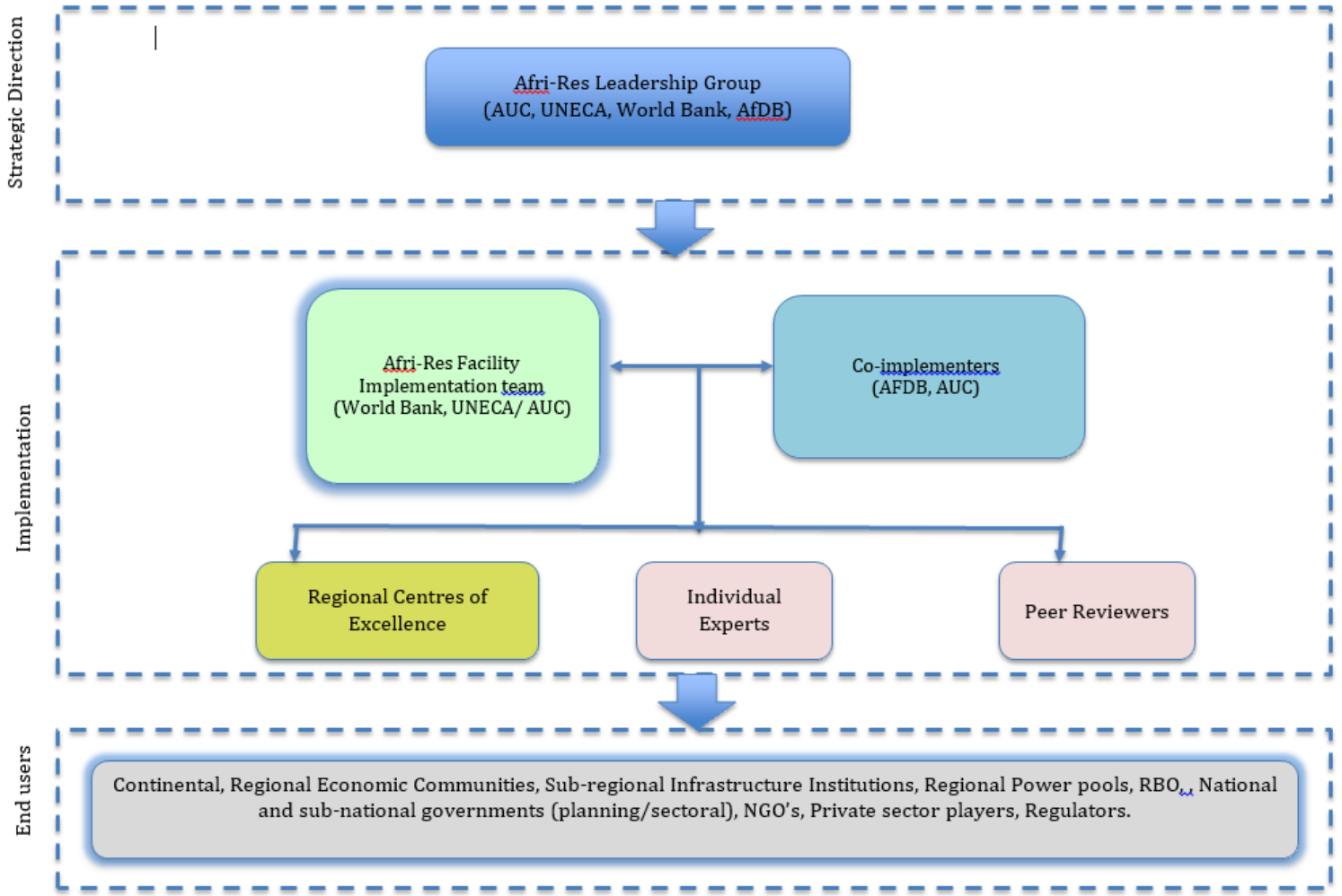
Downstream support

- Assistance in TORs preparation
- Quality assurance on technical reports
- Topping-up project preparation resources (directly, indirectly)
- Support for mobilizing incremental finance

Areas of work

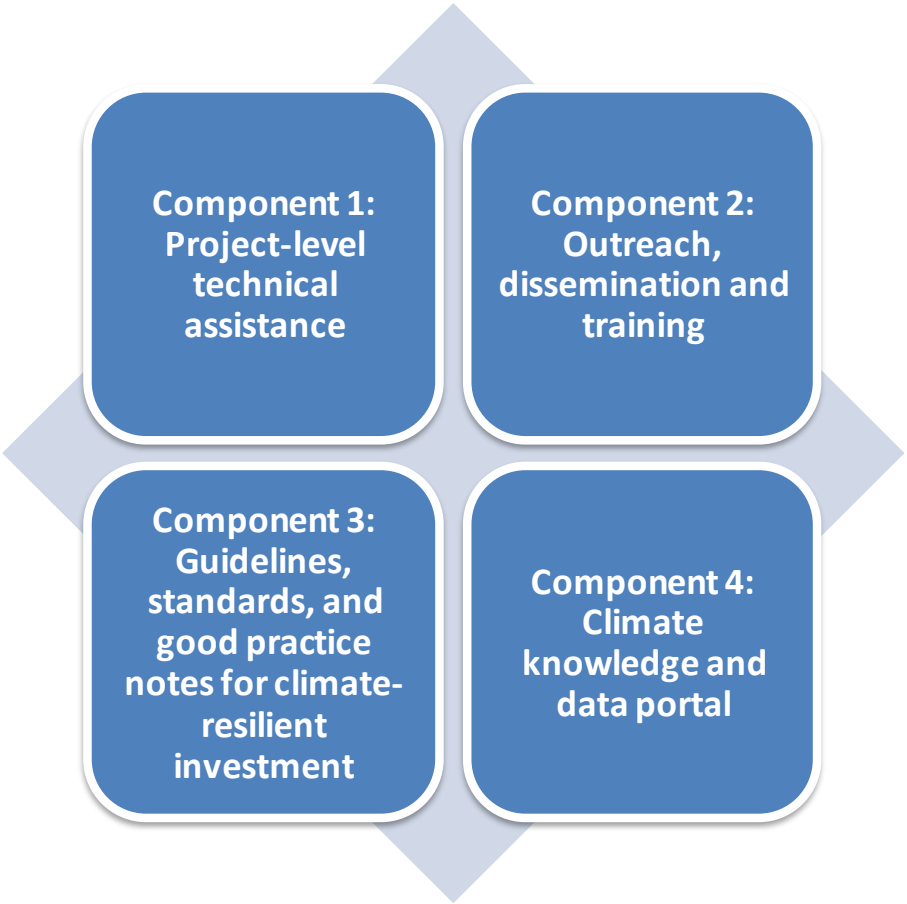
Nr	Area	Implementation lead
1	Project level technical assistance	World Bank / AfDB
2	Training, dissemination, advocacy and outreach	UNECA/AUC
3	Guidelines, standards and good practice notes	World Bank / AfDB
4	Climate Knowledge Portal	UNECA

Implementation structure



Implementation Actors Framework

There are four components to AFRI-RES



Component 1

- Project-Level Technical Assistance

15 projects across 7 sectors were selected to receive USD$ 1.1 million


Agriculture


Water


Energy

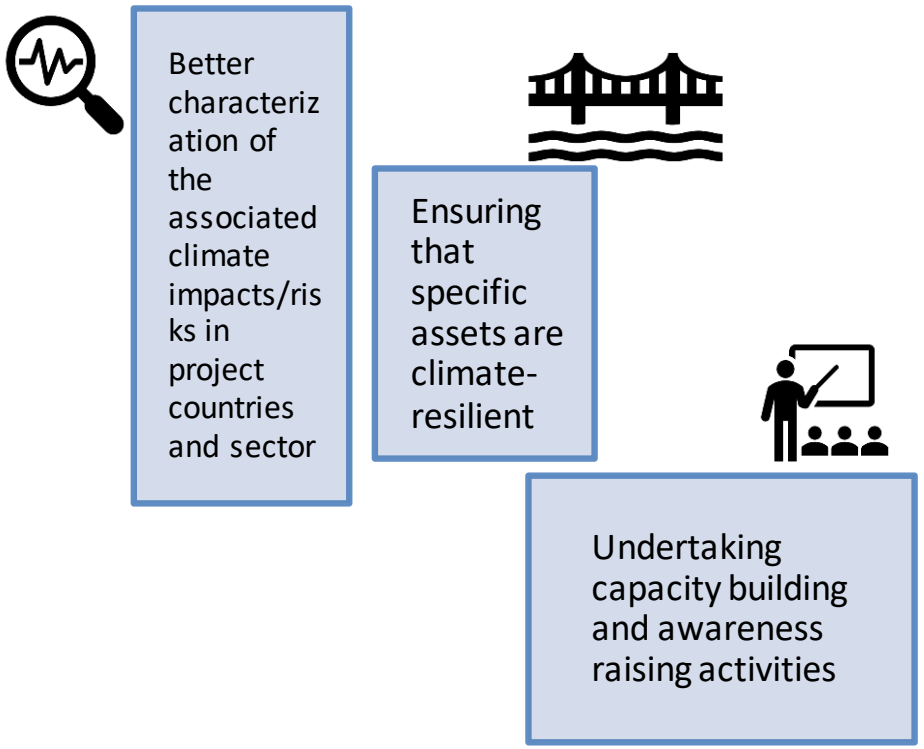

Cities


Transportation


Social Protection


Environment

The projects are using AFRI-RES funding in 3 principle areas of support



Project teams have seen the benefits of the added attention to climate resilience

Nigeria Livestock Project

Lake Victoria Basin Project

Sample products:

- Climate studies
- Technical experts
- Trainings
- Consultation workshops
- Risk assessments
- Optimization of feasibility studies

Tanzania RISE Project

CPT 1 outputs are informing the work under CPT 3

COMPONENT 3

Guidelines, Standards, and Good Practice Notes

- *Resilience Attributes*
- *Hydropower Guidelines*

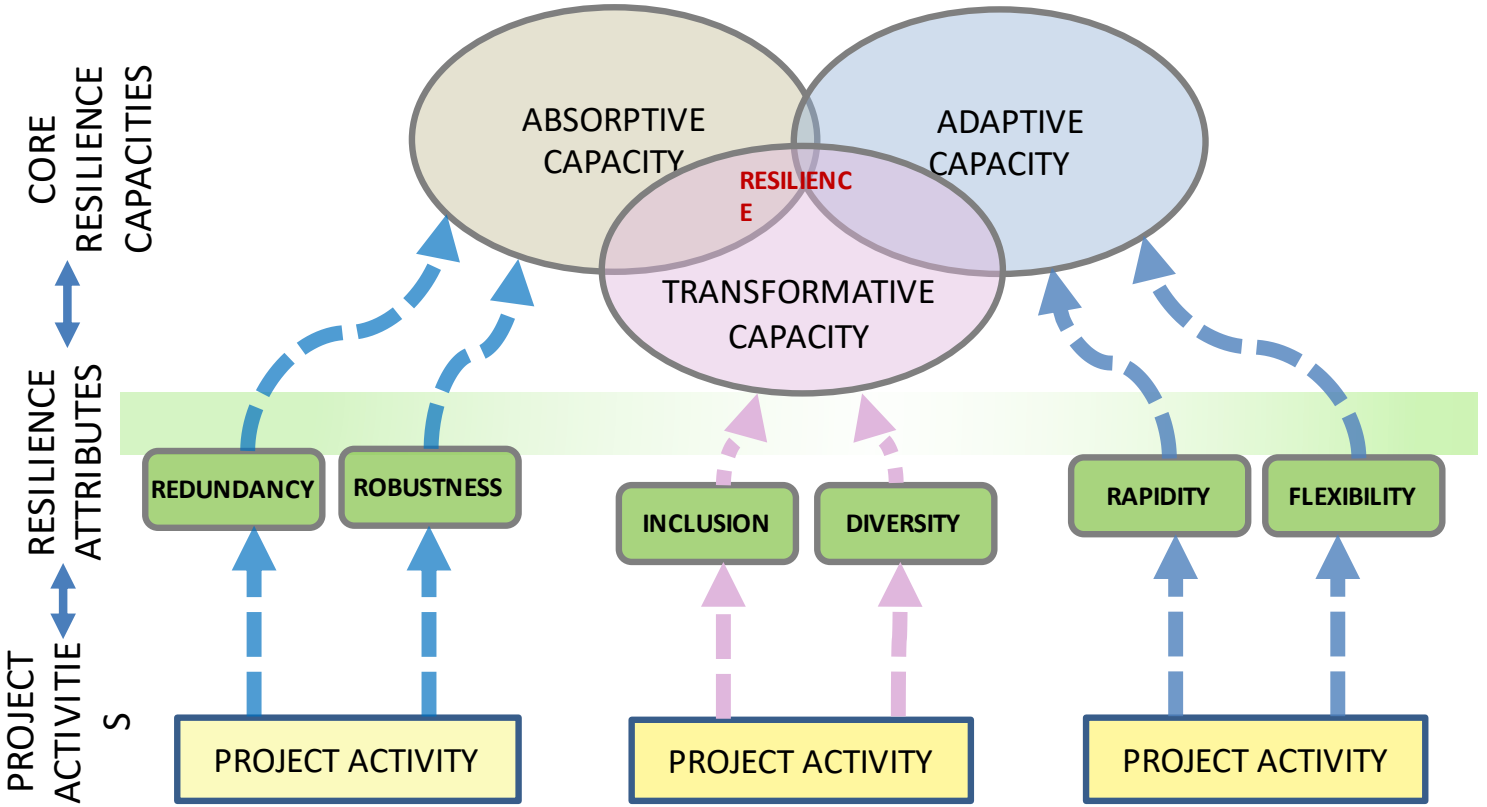
AFRI-RES is identifying good practices and developing guidelines to inform decision-making on incorporating climate risk into project planning and design

Objective: To provide upstream guidance to teams on **embedding resilience attributes** into the **design and management of projects**, and on **tracking progress** over the life of the project *(and provides enhanced contribution to corporate climate commitments)*

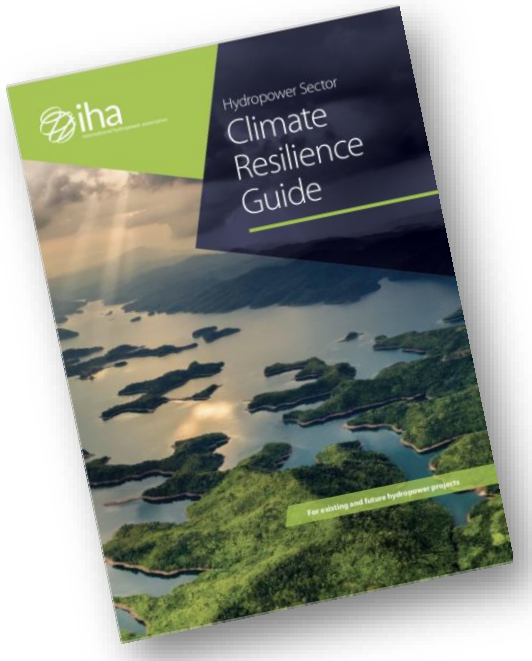
- A **Guidance Note** focused on how to use the resilience attributes as part of **project design and implementation**, outlining practical steps/key considerations to embed attributes as part of resilience pathways, and
- **Sector-focused** resilience attribute **checklists**.

- A **Good Practice Note** focused on attribute-related lessons drawn from the **analysis of the ACBP portfolio**, specific examples/experiences from AFRI-RES, and
- **3 sector-focused case studies** to be produced collaboratively with **task teams**.

Linkages: Resilience Capacities, Attributes and Project Activities



Examples of attributes prioritized by an intervention, based on its specific context, objectives and scope



AFRI-RES has supported the development of the Climate Change Risk Assessment for the Mpatamanga Hydropower Project in Malawi

COMPONENT 2

Outreach, Dissemination and Training

Training and learning package rollout on tools for integration of climate resilience in hydropower development

Training for decision makers and practitioners on understanding and use of tools and methods for climate resilient investments

Training and awareness on climate finance and risk transfer instruments for enhanced resilient investments in key sectors

Training on integration of climate resilience into PIDA projects and climate resilience strategy for PIDA Phase 2

Training on energy planning under changing climate and institutional strengthening

COMPONENT 4

Climate Knowledge and Data Portal

AFRICA CLIMATE RESOURCE AND INFORMATION SERVICES (ACRIS) PLATFORM

Communities of practice

Establish **Partnership Framework** for data and information sharing for the AFRI-RES portal

Partnerships and forums to review and validate climate data and models for Africa

Provides one-stop access to data providers, partners and data as well as open-source software and climate-related modelling tools for enhanced planning for climate resilience

Further Information

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THANK YOU