Water and Climate Coordination:

Supporting the NDCs under the Paris Agreement

Webinar I: Interactions between water and different sectors

Cap-Net · UNDP · Global Water Partnership · AGWA · SIWI · Water Governance Facility

Some “Housekeeping Rules”

- Make sure to **MUTE** yourself throughout the webinar (only speakers will speak).
- If you have comments or questions, use the **chat** function (see bottom of the page, click on the icon with a bubble)
- We’ll try to answer as many questions as we can, but we may **not have time to reply to all questions**
- The webinar is being **recorded**, and we will upload to our Facebook and YouTube channel after the webinar.
- If you have problems **connecting the audio**, please check the “how to” guidelines on the Cap-Net website.

Webinar Programme

1. Introduction to Webinar and practicalities - Moderator: **Danielle Gaillard-Picher, GWP**
2. Introduction to intersectoral interactions - **Marianne Kjellén, UNDP**
3. Water in Climate Tracking - **Dizzanne Billy, Climate Tracker**
4. Enhanced NDC Trends and Analysis – Water – **David Hebart-Coleman, SIWI**
5. Message from the Water Action Track – **Dorin Andros, Ministry of Agriculture, Regional Development and environment, Moldova**
6. Checklist and Examples - **Ingrid Timboe, AGWA**
7. Case Studies: Sharing of experiences
    1. Rwanda's Experience on Enhancing the NDCs - **Marc Manyifika, Ministry of Environment of the Republic of Rwanda, Director General in charge of Land, Water and Forestry.**
    2. Colombia's Experience on Enhancing the NDCs - **Oscar Galvis, Coordinator of the Mines and Energy sector within the Colombian Strategy of Low carbon, Adaptation and Resilient Development**
8. Q&A: Moderated session, **Håkan Tropp, SIWI**
9. Closing and next steps, **Danielle Gaillard-Picher, GWP**

When poll is active, respond at **PollEv.com/gwp**

1: Where are you from? Tap on the map.

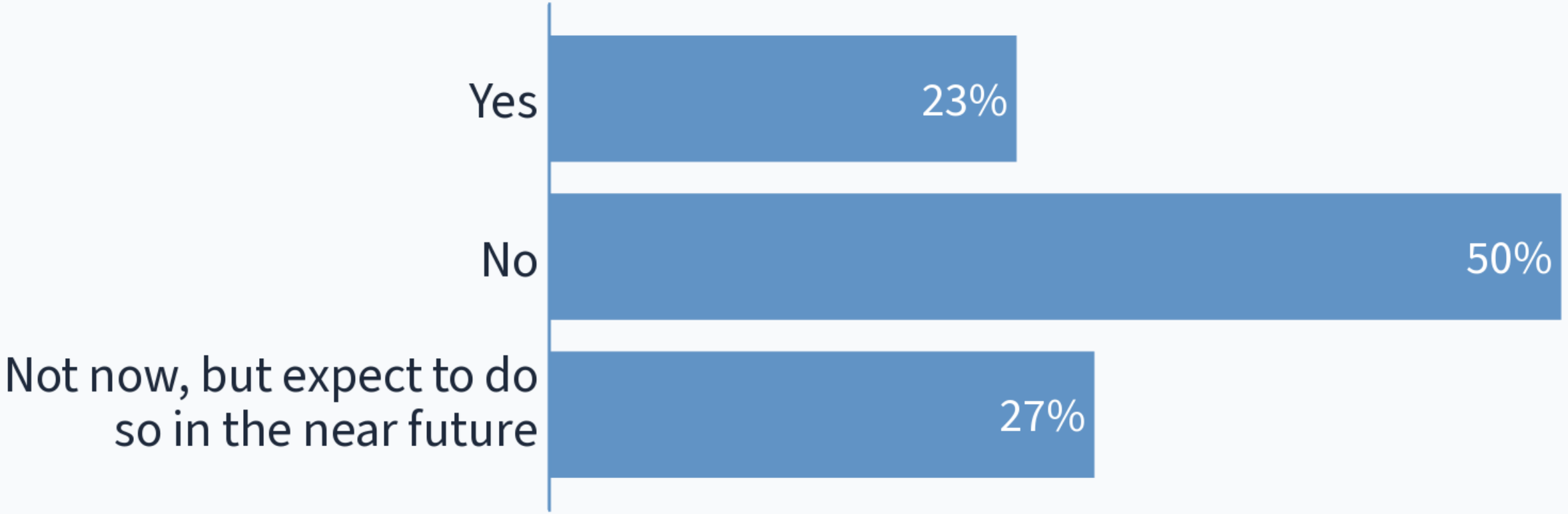
Total Results: 26

Answers to this poll are anonymous

When poll is active, respond at **PollEv.com/gwp**

Text **GWP** to **076 943 91 62** once to join

2: Are you actively engaged with preparing an updated or enhanced NDC?

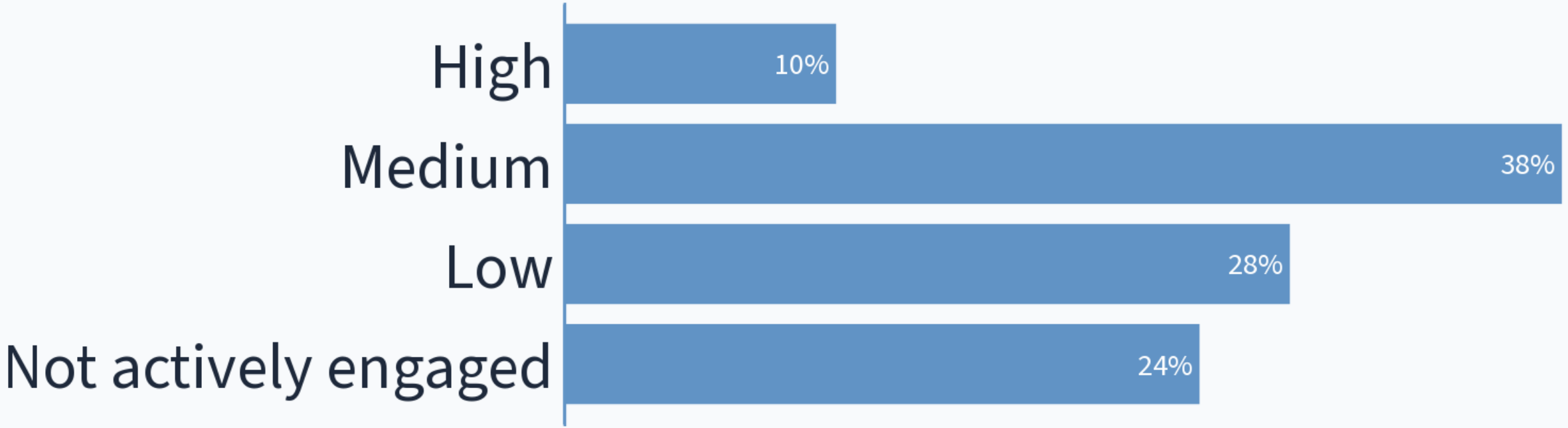


Total Results: 26

When poll is active, respond at **PollEv.com/gwp**

Text **GWP** to **076 943 91 62** once to join

3: What is your level of knowledge of the Country NDC (whether first or present) that you are actively engaged with?

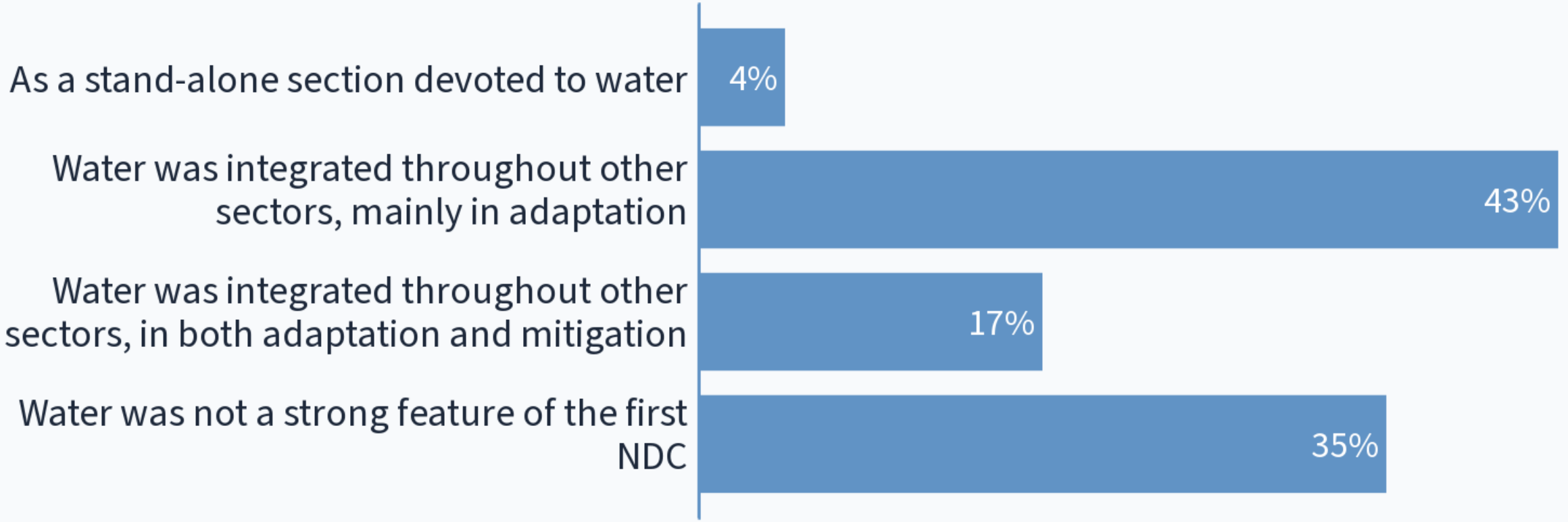


Total Results: 29

When poll is active, respond at **PollEv.com/gwp**

Text **GWP** to **076 943 91 62** once to join

4: In general terms, how was water included in the Country's first NDC?



Total Results: 23

When poll is active, respond at **PollEv.com/gwp**

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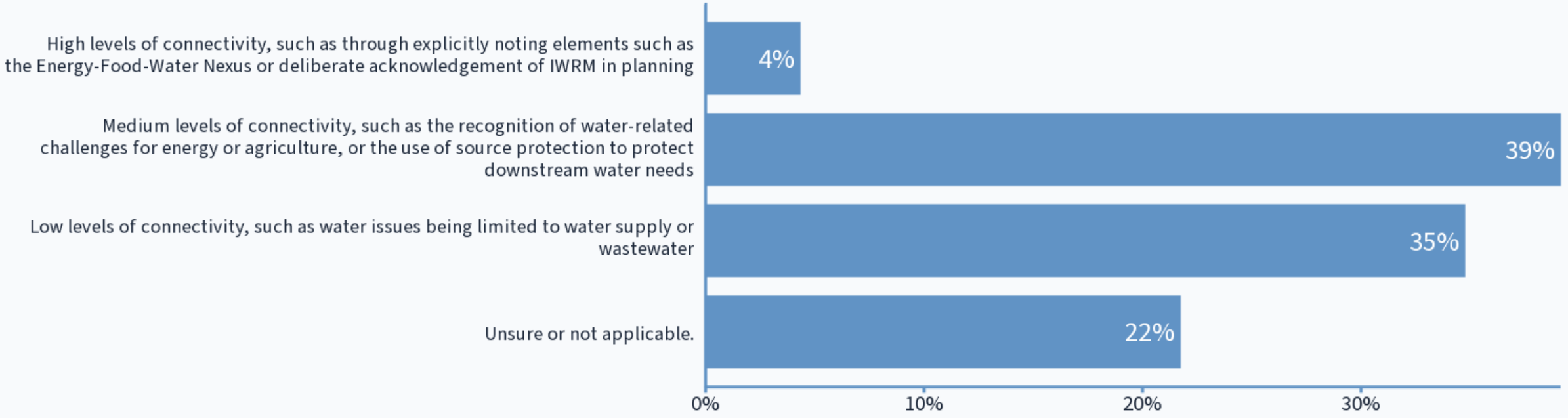
5: How well do you think the different sectors were connected in the Country's first NDC, especially in regards to sectors reliant on water?



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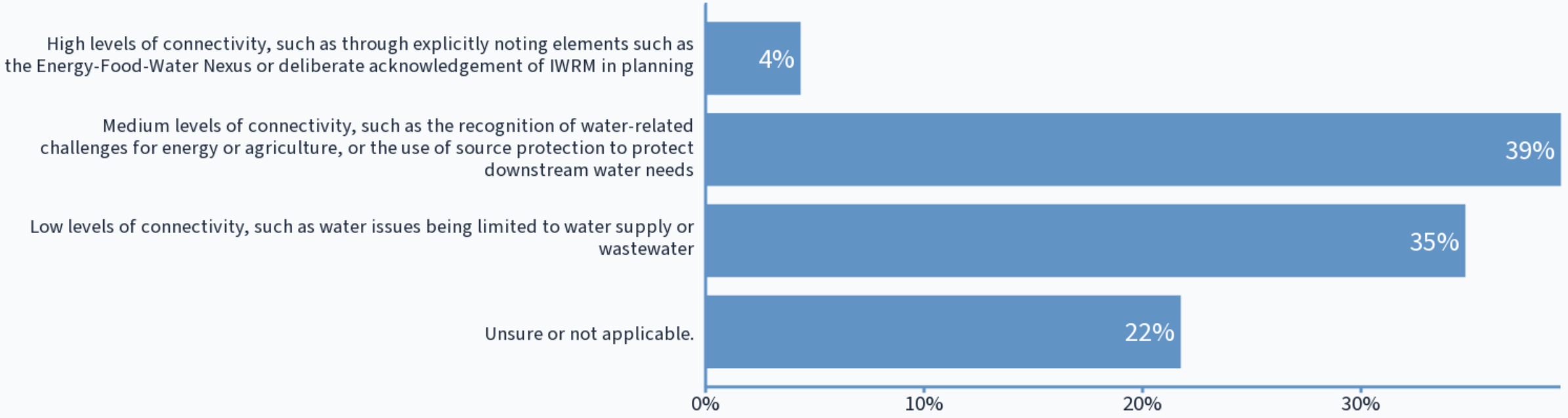


Total Results: 23

Marianne Kjellén
UNDP

"Introduction to intersectoral interactions"

Why Water & Climate?

UN WORLD WATER DEVELOPMENT REPORT 2020: WATER AND CLIMATE CHANGE:

Water is the medium through which nature and human societies experience most of the impacts of climate change.

Sustainable water management is an essential part of the solution to climate change.

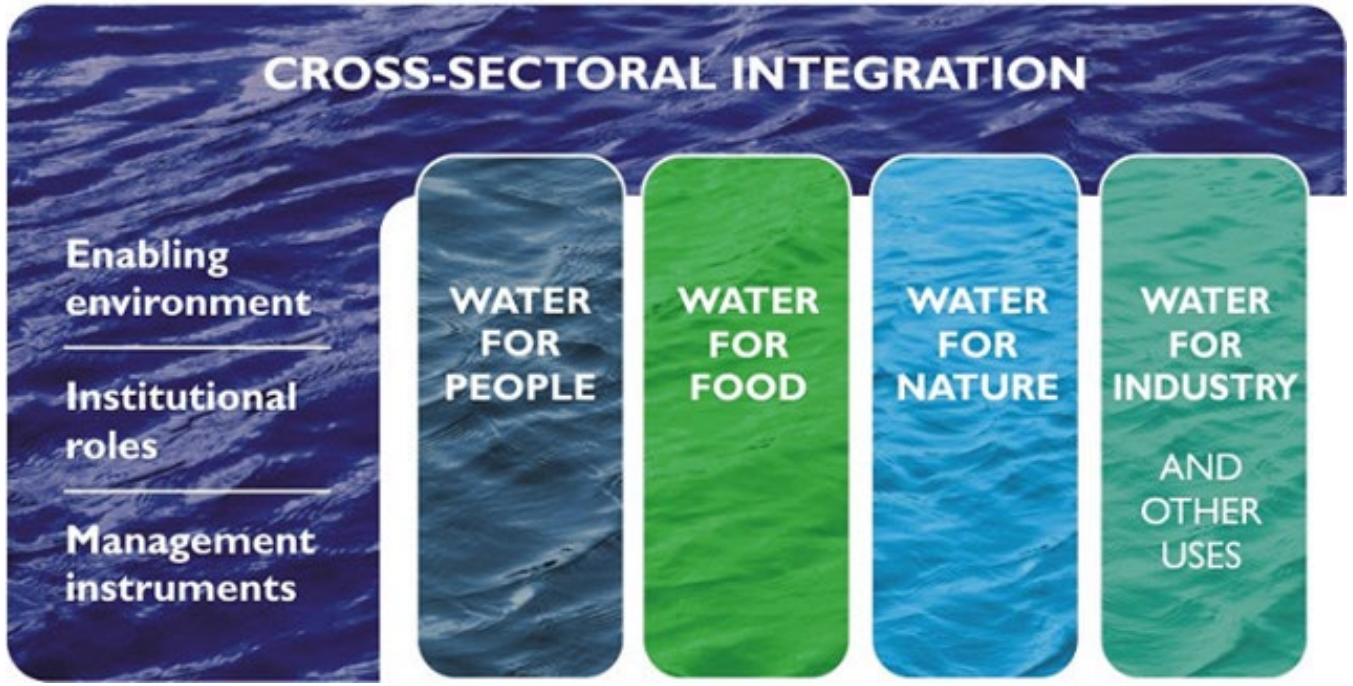
“the relationship between climate change mitigation measures and water is a reciprocal one.”

UN-WATER POLICY BRIEF: CLIMATE CHANGE AND WATER, CITING IPPC TECHNICAL PAPER IV: CLIMATE CHANGE AND WATER (BATES ET AL 2008)

Why Explore Interactions between Sectors?

- Water is a cross-cutting issue – underpinning economic and social development

- Water management is critical for successful implementation of both climate change adaptation and mitigation measures



Enhancing NDCs

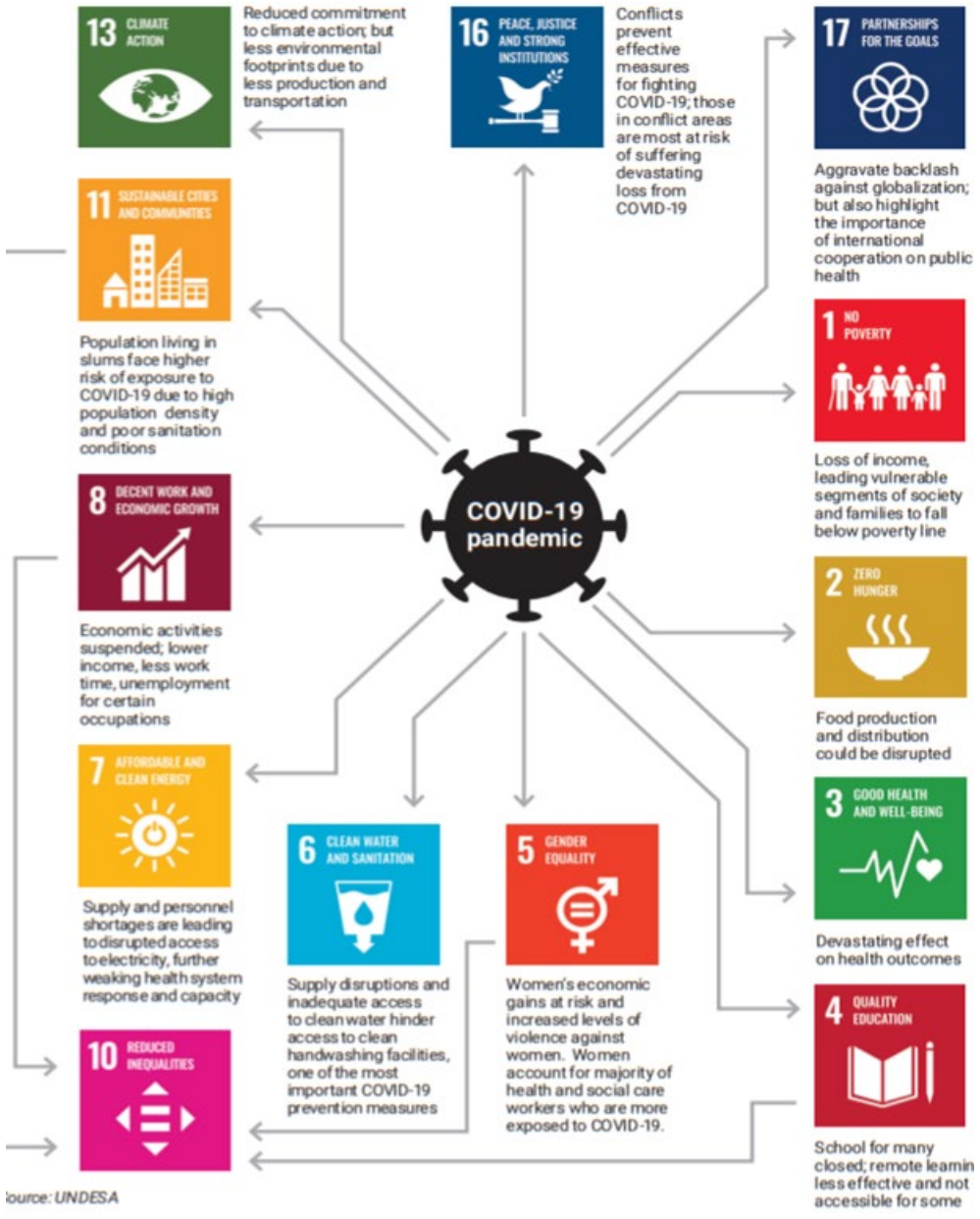
The Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement.

They express countries' efforts and ambitions to mitigate and adapt to the effects of climate change.

CLIMATE PROMISE

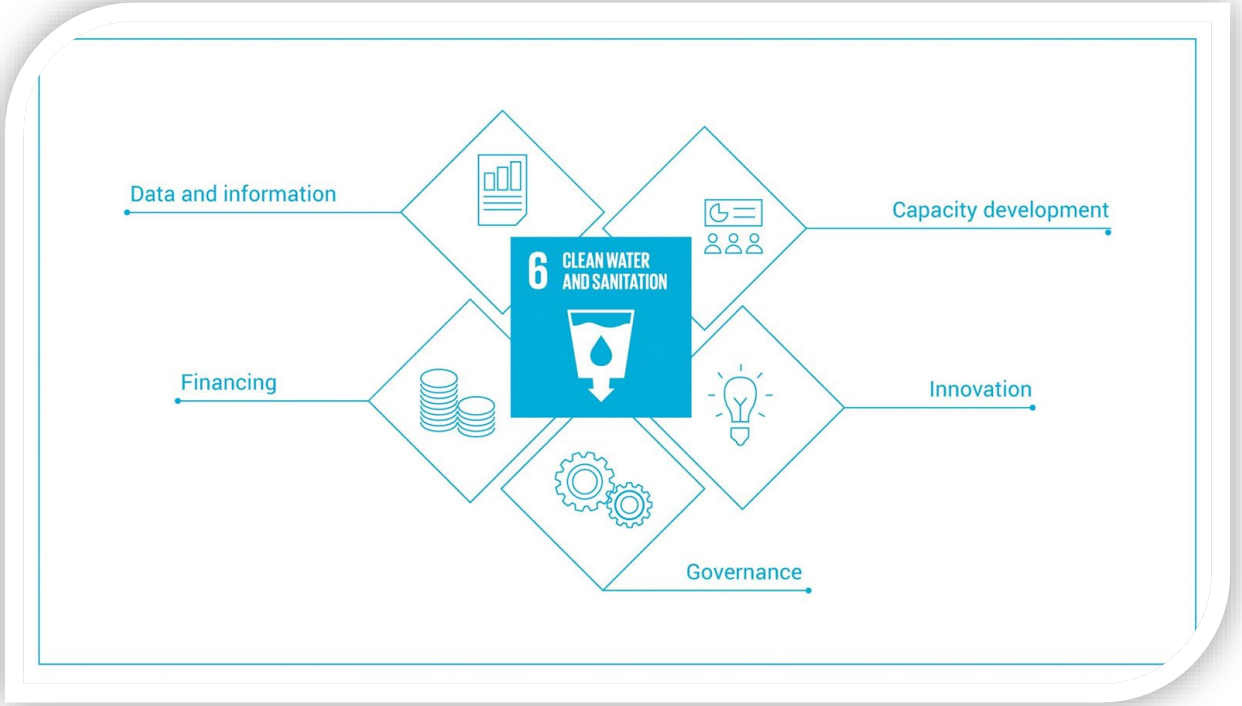
UNDP

A SAFE AND SUSTAINABLE FUTURE THROUGH BOLD CLIMATE ACTION



Covid-19 recovery needs to be considered – and will affect all our efforts – across the board!

Multilateral thinking & coordinated efforts



The choices made today,
if made well, can transform our societies and our planet for the better

Dizzanne Billy
Climate Tracker
“Water in Climate Tracking”

CLIMATE TRACKER .ORG

Water in Climate Tracking


Welcome to Climate Tracker

What do we do?

Provide training and fellowships for young journalists around the world to tell better climate stories locally.

Conduct action-oriented media research to better understand the biggest challenges, trends, and obstacles to powerful climate reporting around the world.

What do we do?

Fund young journalists to report on the world's most pressing issues and cover the world's biggest moments, UN negotiations and conferences

Support global collaborations between young climate journalists, newsrooms and NGOs around the world.

The Climate Change and Water Nexus

Today, a change in climate is felt primarily through a change in water.

Millions are at risk.

Climate change is happening now. We must act, and water is part of the solution.

Adapting to the water effects of climate change will protect children's health and save their lives. Using water more efficiently and transitioning to solar powered water systems will reduce greenhouse gases and further protect children's futures.

The world needs to get water smart. Everyone has a role to play, and we cannot afford to wait.

Water and Climate Change in the Caribbean

Storytelling is a vital part of the climate change movement.

Journalists shape and share the information the public consumes.

This is why it is important for journalists to be trained in the technical information and work alongside the scientists in communicating the water challenges effectively.

The challenges

- Lack of coverage on water issues
- Lack of training for journalists on water and climate change
- Lack of integration between technical knowledge and communicators in the Caribbean

David Hebart-Coleman
SIWI

"Enhanced NDC Trends and Analysis – Water"

Disclaimer

- Observations based upon the currently available NDC's.
- Trends will change as more NDC's are published over 2021.
- Deeper analysis will be made available in late 2021, including Commitments types and governance mechanisms.
- NDC's published in French, Spanish and other languages have not been subject to formal translation.

Initial Data

- 82 NDC's deposited at UNFCCC as new iterations
- 38 of these come from Annex I countries
- 44 come from Non-Annex 1 Countries, including 8 from LDC's.
- Annex I Countries are primarily concerned with mitigation commitments.
- Most non-Annex I Countries include a mix of adaptation and mitigation components,
- Some countries leave adaptation components to other climate change planning processes.

Overall Content – First Impressions

- COVID has had substantial impact on preparation and development of NDC's
- Most will be delivered 2021
- More resources have gone into the second round of NDC's
- Resulted in most NDC's have become more complex and detailed
- Mitigation remains the highest priority for enhancement with new sectors added

Water-Related Content – Overall NDC Impressions

- The presence of water and water related activities have increased
- Most NDC's increased recognition between 1st iteration and 2nd iteration
- Some countries went from no recognition through to limited recognition
- Some changed substantially, such as Panama, Chile, and Costa Rica.
- Several countries that had substantive provisions in the first NDC continued to do so in the 2nd iteration, but included more targets, activities, and information, such as Moldova.
- Some countries explicitly direct efforts around water to NAP's

Topic Trends

- Water scarcity is increasingly recognized.
- Many countries include watershed protection or source protection
- Nature Based Solutions regularly included
- Improved recognition of interactions
- Limited recognition of water sector mitigation potential
- Potential shift from water management to landscape management

Examples of water related shifts - Latin America & Caribbean

Country	1st NDC	2nd Iteration (Enhanced NDC or 2nd NDC)
Argentina	Limited	Watershed planning, regional targets, central role of water, water interactions
Colombia	Some water connections	Water Ecosystems, Watershed protection, Water Governance
Dominican Republic	Drinking water & IWRM	Co-benefits from water, invest in water security, Nexus, source protection
Cuba		Reforestation as part of source water rehabilitation, water reserves, strategic role of water
Mexico	Limited	Restoration/protection of water ecosystems, comprehensive WRM, Gender & Water, Water depletion
Panama	Limited	Water base of economy, water security guarantees, regional impacts on water resources

MOLDOVA´S RECORDED MESSAGE

Ingrid Timboe
AGWA
“Checklist and Examples”

Checklist Approach

- Each section consists of a brief rationale for raising or including the topic, followed by exploratory questions
- Focus is on important interactions with water
- Overall priority of topics, as well as the priority accorded to different questions within a section, will differ between states dependent on their specific need

Key Message #1

Water underpins – and connects – all aspects of climate change adaptation and mitigation activities.

- Water is a critical building block of the carbon-based economy – AND the post-carbon economy
- Most water is used outside the "water sector" (i.e., for agriculture, industry, or energy production). If this water is not explicitly accounted for in our climate plans, we risk not being able to achieve our shared goals, as well as further exacerbating water insecurity
- Resilient water management has multiple co-benefits for mitigation & adaptation, as well as society and the environment broadly

Key Message #2

Water is a limited resource that is becoming more variable in many places. As such, the status quo approach to water management is not sustainable.

- Water exists as part of a continuous cycle: it came from somewhere, it is going somewhere else
- Thus, when looking at water and its role in achieving climate goals, we must consider the entire hydro system from source to sea
- We need to balance trade-offs between users, which means we need to know where and how water is moving within the system

Key Message #3

The rapid expansion of GHG emissions mitigation activities may be water-limited.

- For example:
  - New or intensified hydropower production on rivers with shifting flow patterns
  - Availability of water for biofuel feed stock, tree planting, and green hydrogen

Key Message #4

Implementation of climate commitments should consider sectoral interactions and be planned in a coordinated manner

- Many commitments found in the first round of NDCs were segregated by sector, and did not recognize interactions leaving them vulnerable to resource constraints
- Given that water crosses many sectors, and is critical for many climate commitments, water security should be prioritized and integrated into climate plans
- Examples:
  - Investment in source water protection for the purposes of retaining water resources for downstream irrigation or urban use;
  - Investment in non-revenue water reduction to reduce energy needs

Checklist section on energy and industry

- ✓ Water for energy production
- ✓ Water for thermoelectric cooling
- ✓ Energy needs of water production, treatment, and transfer
- ✓ Industrial processes

Water for Energy Production

- Energy constraints are water constraints: as global demand for energy increases, more water will be needed to meet demand
- Rising temperatures and increasingly variable precipitation patters affect the water needs of energy production (both fossil fuels & renewables)
- Most clean energy technologies, including CCS, are also water-dependent

ARE YOU CONSIDERING?

The long-term impact and viability of new technologies, given increasing water risks? Have you given sufficient thought to the water needs of all energy generation methods/ options prior to siting, planning and investing in new technologies or retrofitting existing infrastructure?

Energy Needs of Water Production, Treatment and Transfer

- Electricity use by the water sector is mainly for the removal, conveyance and treatment of water and wastewater. Increasing reliance on transporting and pumping ground or surface water will likely require larger amounts of energy
- Many water technologies such as desalination (both membrane-based and reverse osmosis) are energy intensive, potentially compromising mitigation goals
- The need for new or improved water infrastructure is nearly universal and climate change is impacting the functionality of current (and planned) infrastructure

ARE YOU CONSIDERING?

How the pumping and distribution technologies of water impacts national climate change mitigation efforts?

Examples from the 2020 NDCs: Costa Rica

- NDC 2020 is informed by links with other national and international agendas, including:
  - Sustainable Development Goals,
  - Kigali Amendment to the Montreal Protocol,
  - Sendai Framework for Risk Reduction Disaster 2015-2030,
  - Convention on Biological Diversity,
  - United Nations Convention to Combat Desertification and,
  - the rights of Indigenous Peoples and Afro-descendants
- Example target: Costa Rica will protect and conserve 100% of the coastal wetlands included in the National Inventory of Wetlands (for the period 2016-2018) by the year 2025, and the area of estuarine wetlands at least 10% by 2030.

Image source: IUCN, 2016

Examples from the 2020 NDCs: Costa Rica

CONTRIBUCIÓN

6.2.
Al 2030, se alcanzará al menos el 50% de cobertura de alcantarillado sanitario en las áreas de alta densidad poblacional, incorporando criterios de resiliencia al cambio climático.

Impacto sobre el bienestar

CONTRIBUCIÓN

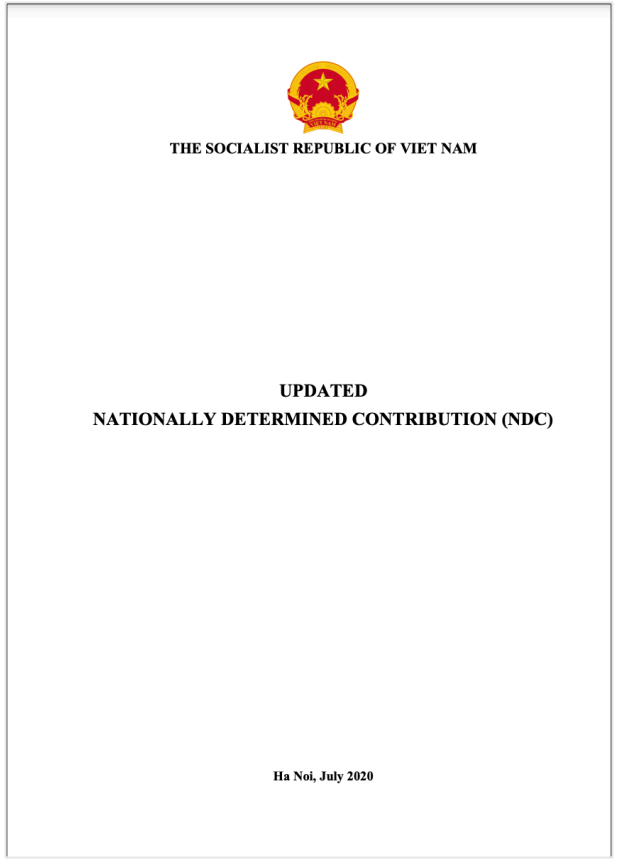
9.5.
El país protegerá y conservará el 100% de los humedales costeros incluidos y reportados en el Inventario Nacional de Humedales (en el período 2016-2018) para el año 2025 y aumentará el área de humedales estuarinos registrados en al menos 10% para el año 2030, para así proteger y conservar estos ecosistemas.

Impacto sobre el bienestar

Source: Government of Costa Rica, 2020

Examples from the 2020 NDCs: Viet Nam

- Developing and implementing the **national water resources master plan and integrated river basin master plans** that take climate change into account; developing & implementing water security measures in the context of climate change.
- The domestic legal document system on climate change response is not synchronized and needs to be reviewed, revised, and updated to match the current context…. **Coordination** among ministries, sectors and localities in solving inter-sectoral, inter-regional issues related to climate change response should also be strengthened.
- Achievement of 95%-100% of the population with **access to clean and hygienic water**; 100% of the population with access to health care services.


THE SOCIALIST REPUBLIC OF VIET NAM

UPDATED
NATIONALLY DETERMINED CONTRIBUTION (NDC)

Ha Noi, July 2020

Rwanda's Experience

Ir. Marc MANYIFIKA
DG LWF/MoE

Outline

Contextual Background Of the Intended NDC 2015

- Vision 2020
- GGCRS 2011
- Water Policy 2011
- Water Master Plan (2012) 2015

What Happened in between the INDC 2015 and UNDC 2020?

- Water related challenges
- New insights/Improved knowledge

Context of the Updated NDC 2020

- Vision 2050
- New knowledge

Contextual Background of the Intended NDC 2015

Vision 2020

Pillars	Cross cutting issues
• Good governance and a capable State; • Human resources dvpmt (education, health, etc.); • Private sector dvpmt; • Productive and market-oriented agriculture; • Regional and international integration; • Infrastructure dvpmt (land use management, urban dvpmt, transport, communication ICT, energy, **WATER**, waste management), etc.	• Gender equality; • Science, Technology and ICT; • **Natural Resources, Environment and Climate Change.**

- Enough water reserves (substantial rainfall, abundance of lakes, streams and water courses) for both consumption and agricultural purposes;
- Inter basin transfer of high altitude water in the Western part by gravity to the Southern and South-Eastern regions facing water shortages;
- Invest in protection and efficient management of water resources to ensure universal access to clean water.

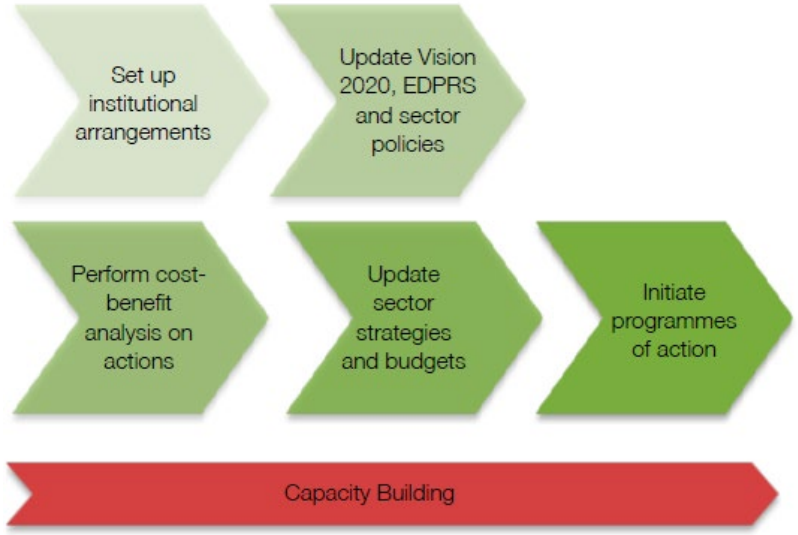
- Climate change consequences including flooding, disasters such as landslides costing lives and resources, and droughts adversely affecting agricultural output;
- Put in place strategies to mitigate the impact of climate change by focusing on developing eco-friendly policies and strategies in all sectors of the economy and by promoting green growth.

National Water Resources Policy 2011

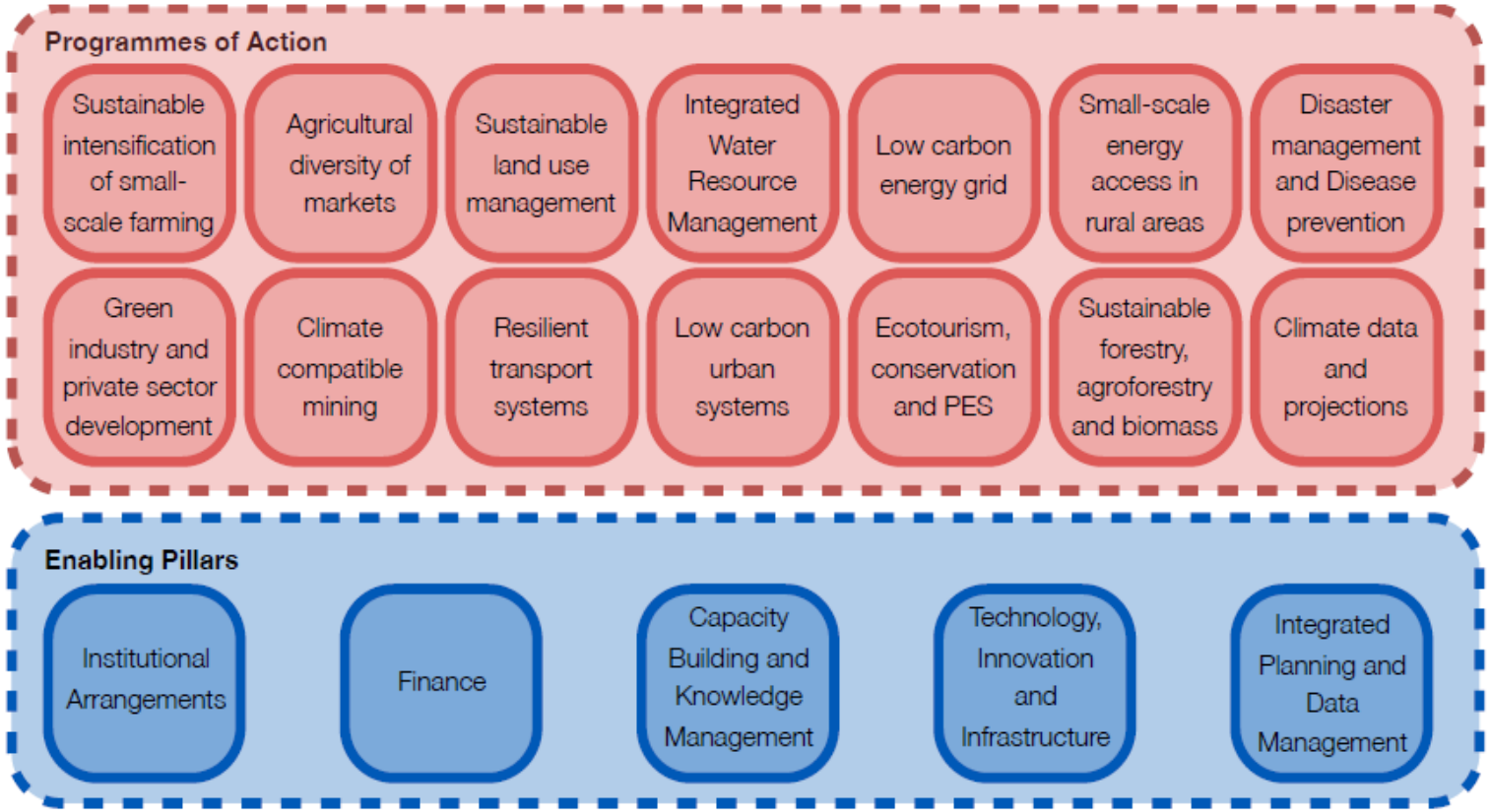
8 Policy Statements focusing mostly on:

- Water resources and demands assessment;
- Legal and Institutional dvlpmt;
- Capacity Building;
- Information and knowledge dvlpmt.

Roadmap to implementation

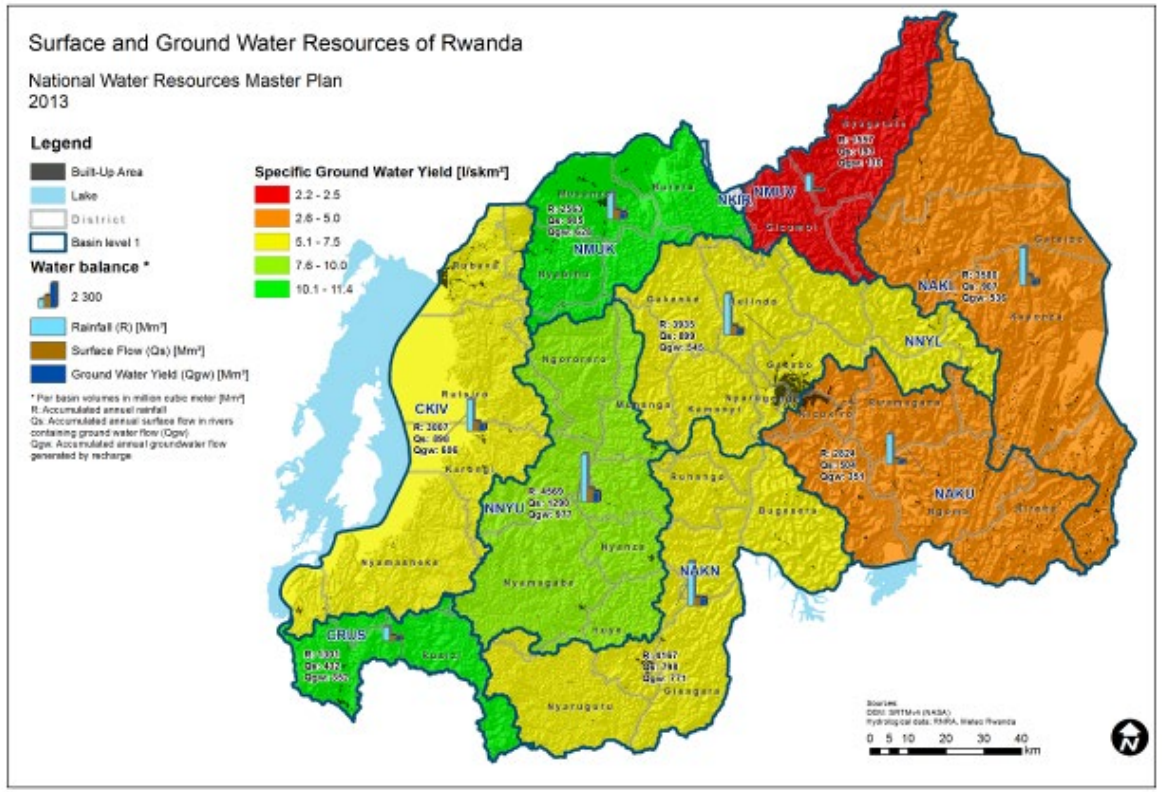


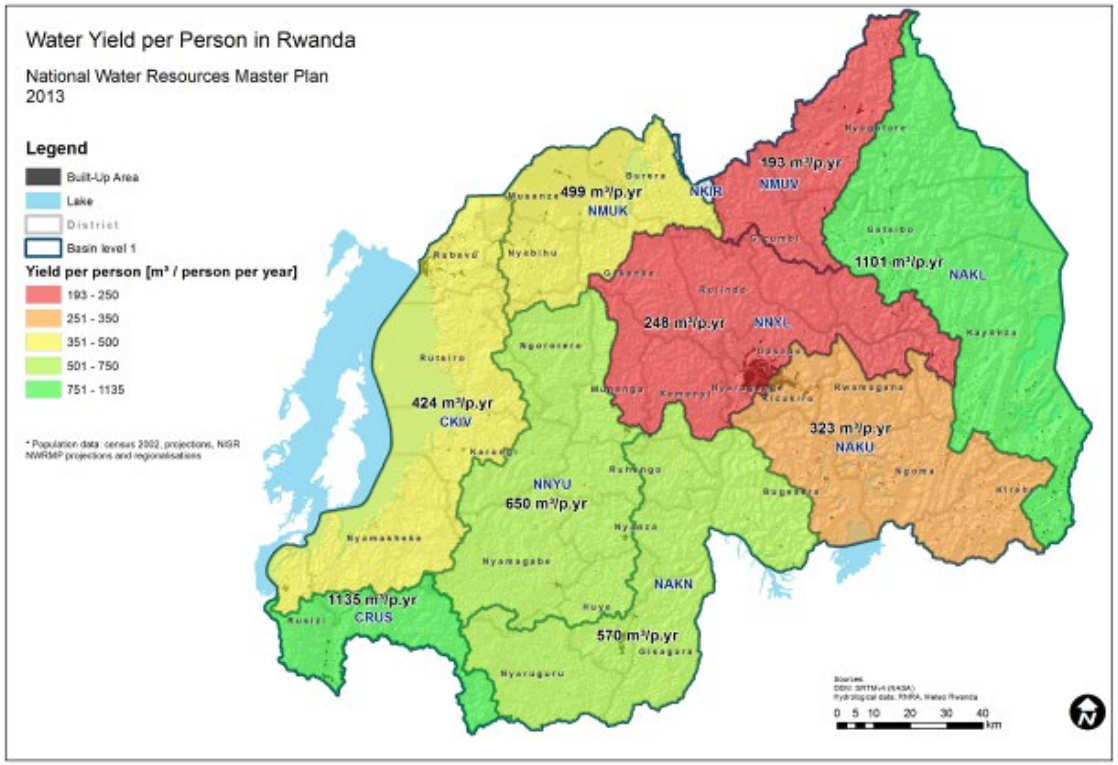
Green Growth and Climate Resilience Strategy 2011



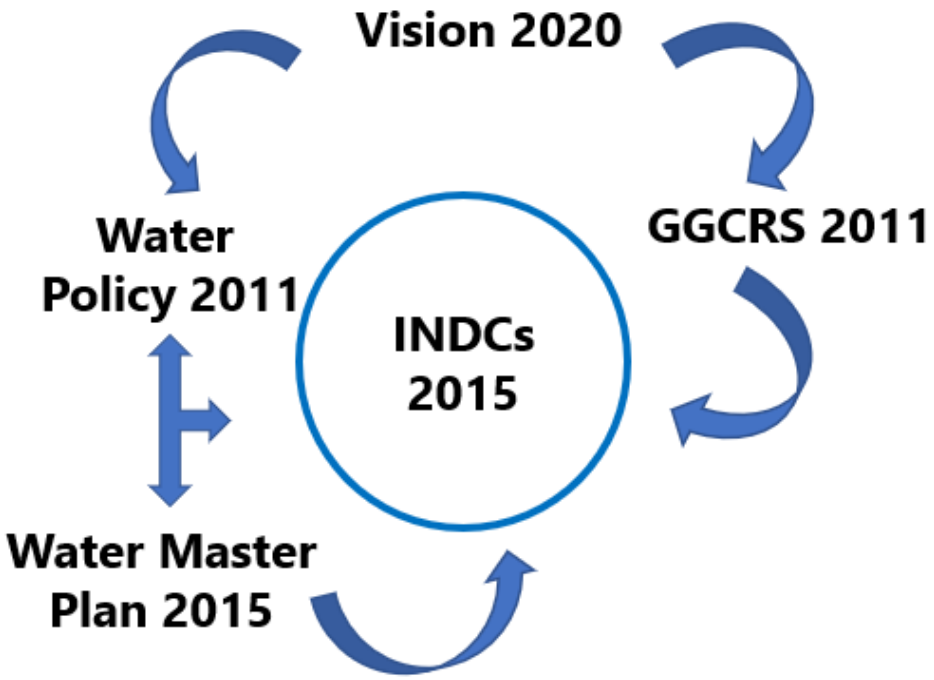
National Water Resources Master Plan (2012) 2015

- Total demand as a fraction of renewable resources is approximately 4%;
- Renewable water resources availability per capita per annum is approx. 670 m3/cap./year





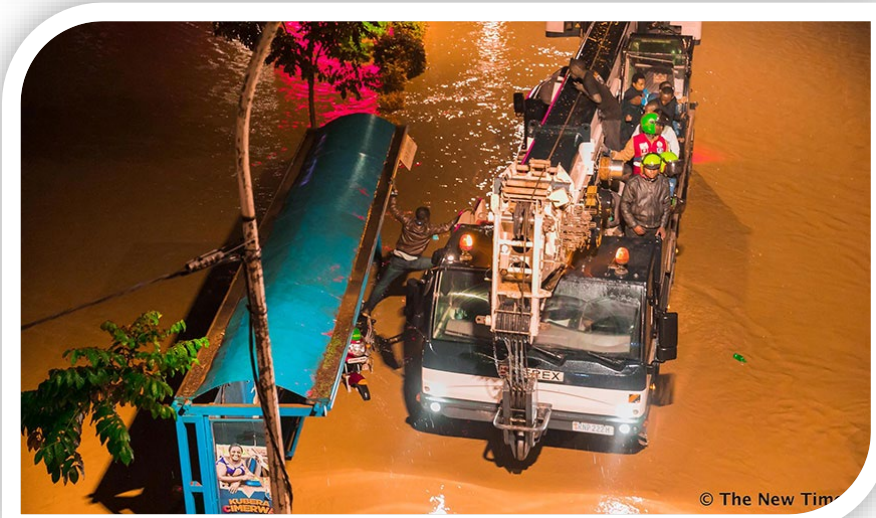
Intended NDCs 2015



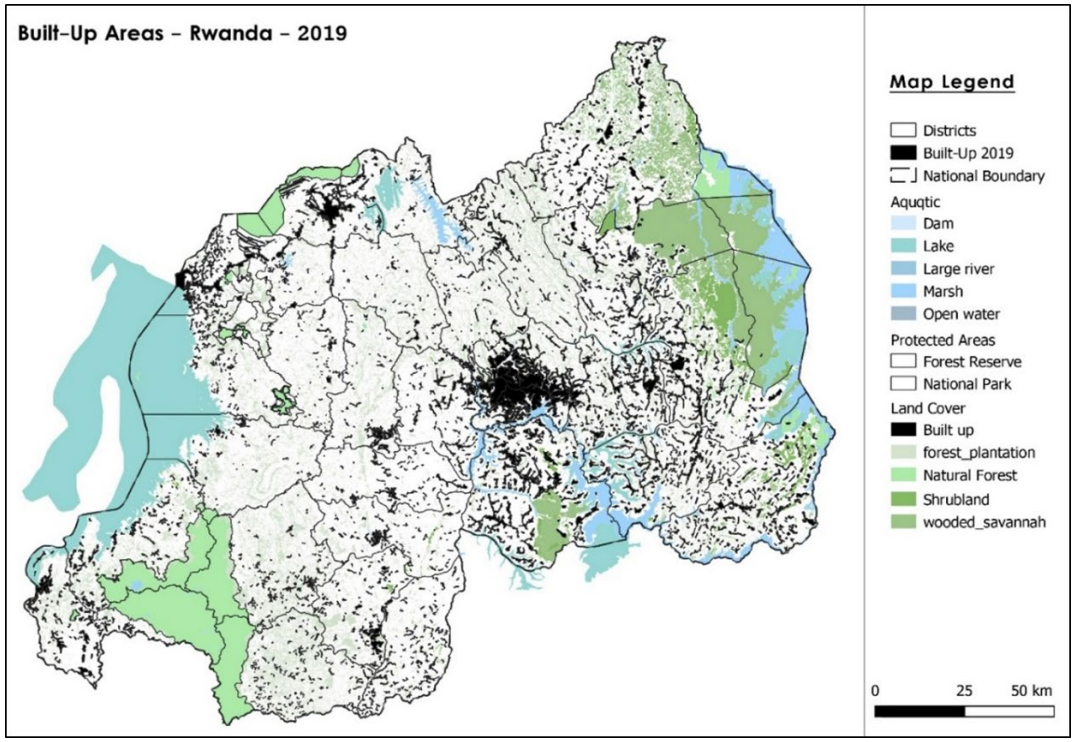
- The INDCs 2015 is based on the GGCRS 2011 with its enabling pillars;
- **Vision for adaptation** was focused on achieving energy security and Low Carbon Energy Supply, sustainable land use and water resources management for food security, urban development, preservation of biodiversity, social protection, improved health and disaster risk reduction;
- 3 adaptation actions in the water sector:
  - Establishment of institutional/management framework at decentralized level based on catchment delineation;
  - Development of water related information management framework (data collection, information and knowledge);
  - Development of a national security plan based on water storage and efficient use of water (irrigation and other use).
- Cross cutting actions included development of an early warning system including flood and drought forecasting;
- **Vision for mitigation** was focused on avoiding deforestation while on the road to energy security and low carbon energy supply and did not set mitigation actions in the water sector.

What Happened in between the INDC 2015 and UNDC 2020?

Challenges faced



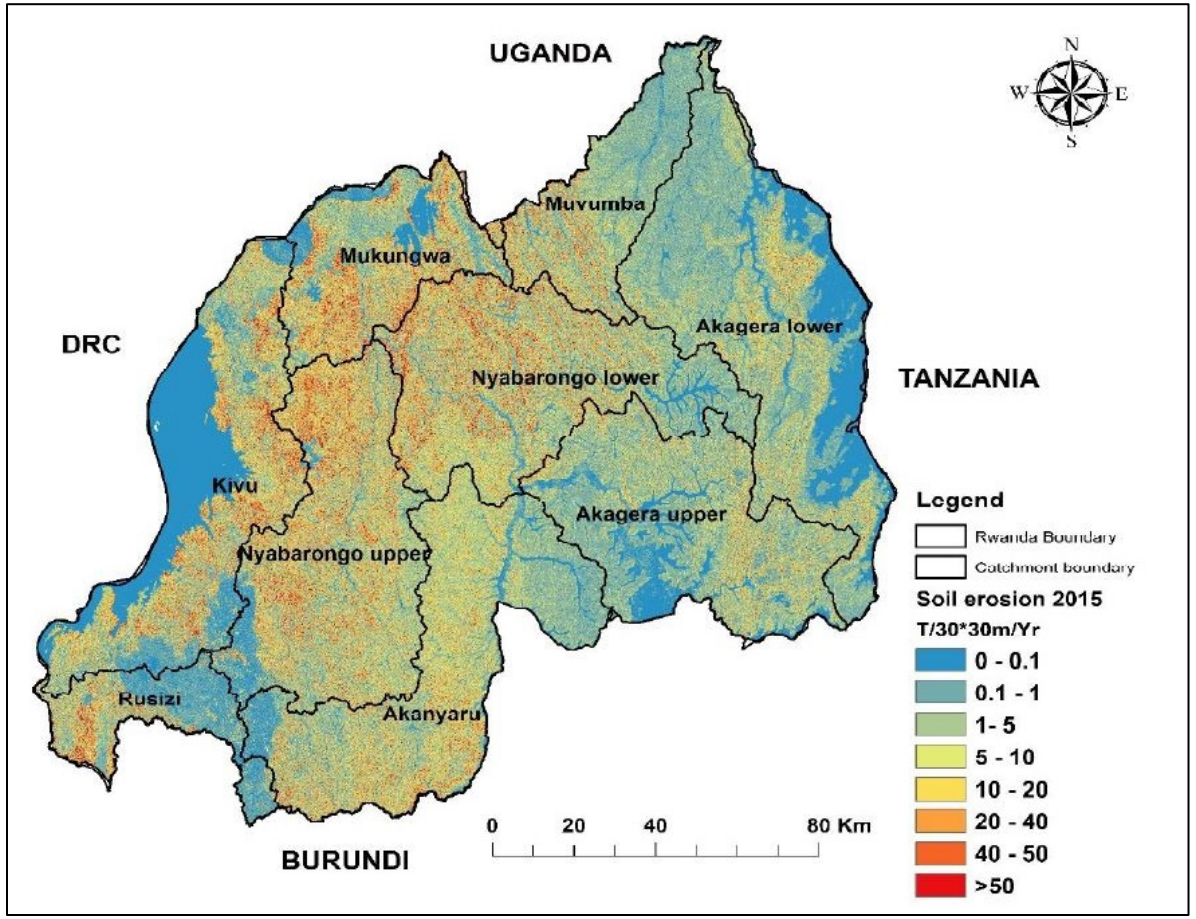
Challenges faced



Scattered settlements leading to:

- Increasing runoff,
- Deforestation,
- Poor agriculture practices.

Estimated fertile soil eroded in 2015

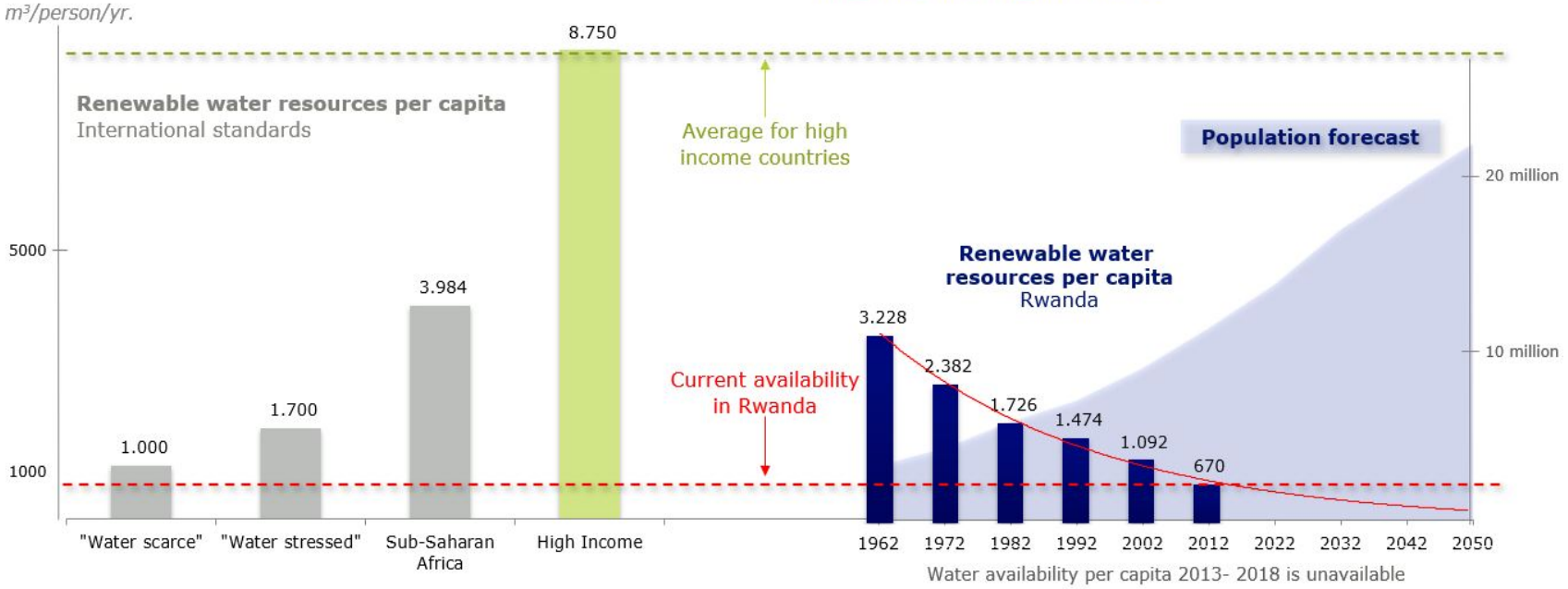


New Insights

Rwanda's high growth, high income ambitions are threatened by low and decreasing renewable water resources per capita

International standards far exceed Rwanda's renewable water resources per capita

Vision 2050 at risk: Renewable water resources per capita decreasing rapidly with population and GDP growth, falling far below international benchmarks

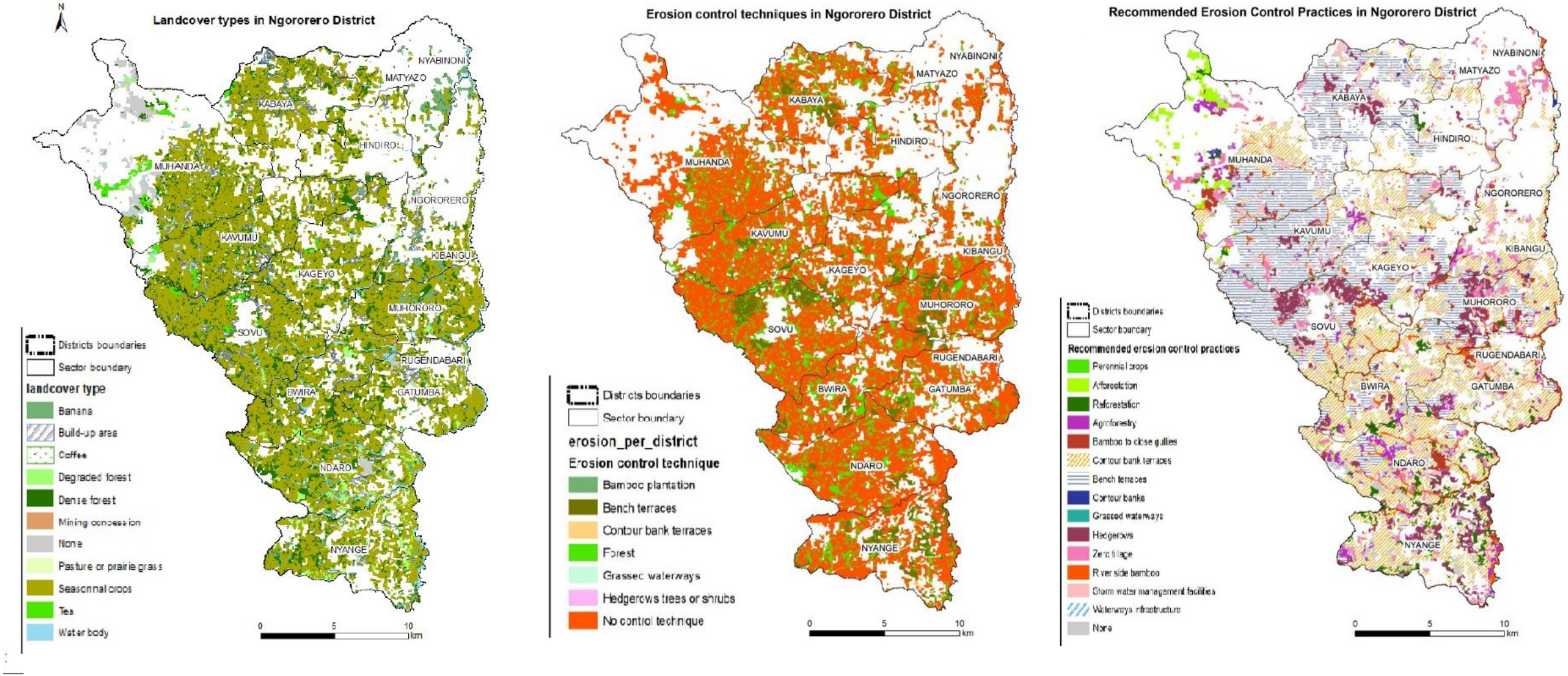


What we have learned:

- Poor land use affecting water resources quality and so availability;
- Climate change increasing the frequency of extreme weather events (flood and drought);
- Land cover change impacting heavily the hydrological behavior of our systems (increased runoff for e.g.);
- Need for strategic integration of nature based and structural measures for flood control (wetland restoration, storage and water opportunity harnessing).

New Insights

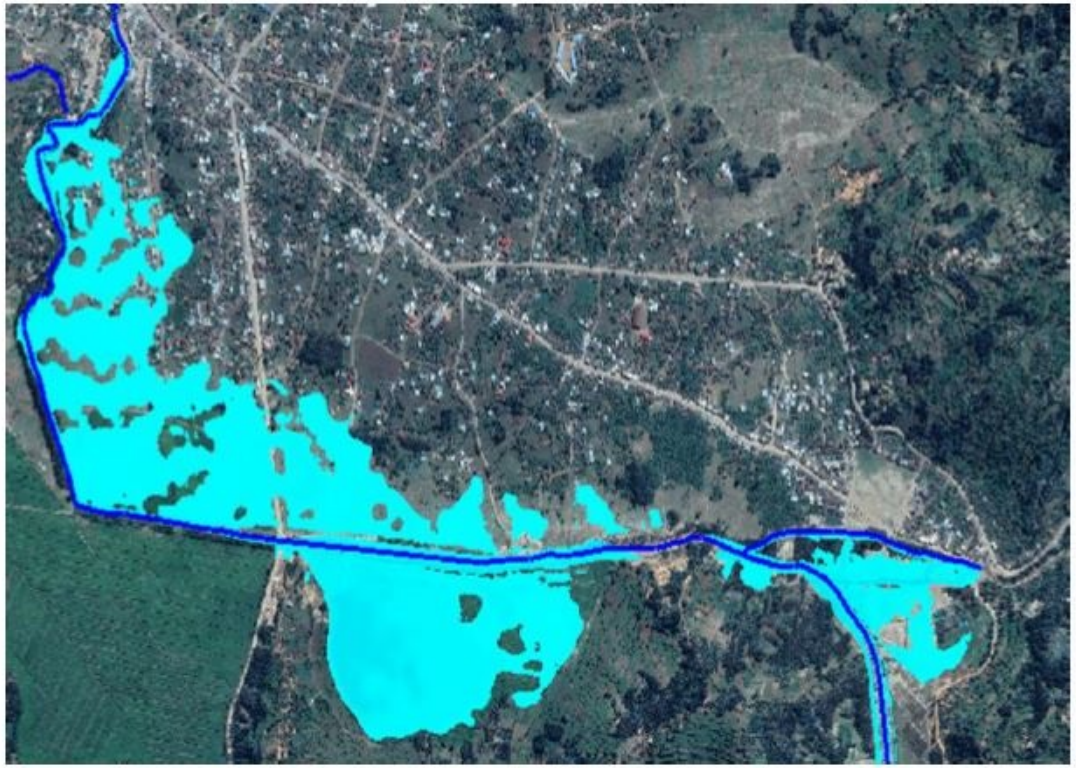
Detailed soil erosion control analysis providing clearly what to do, where and how



Example of Ngororero District, in the Western Province

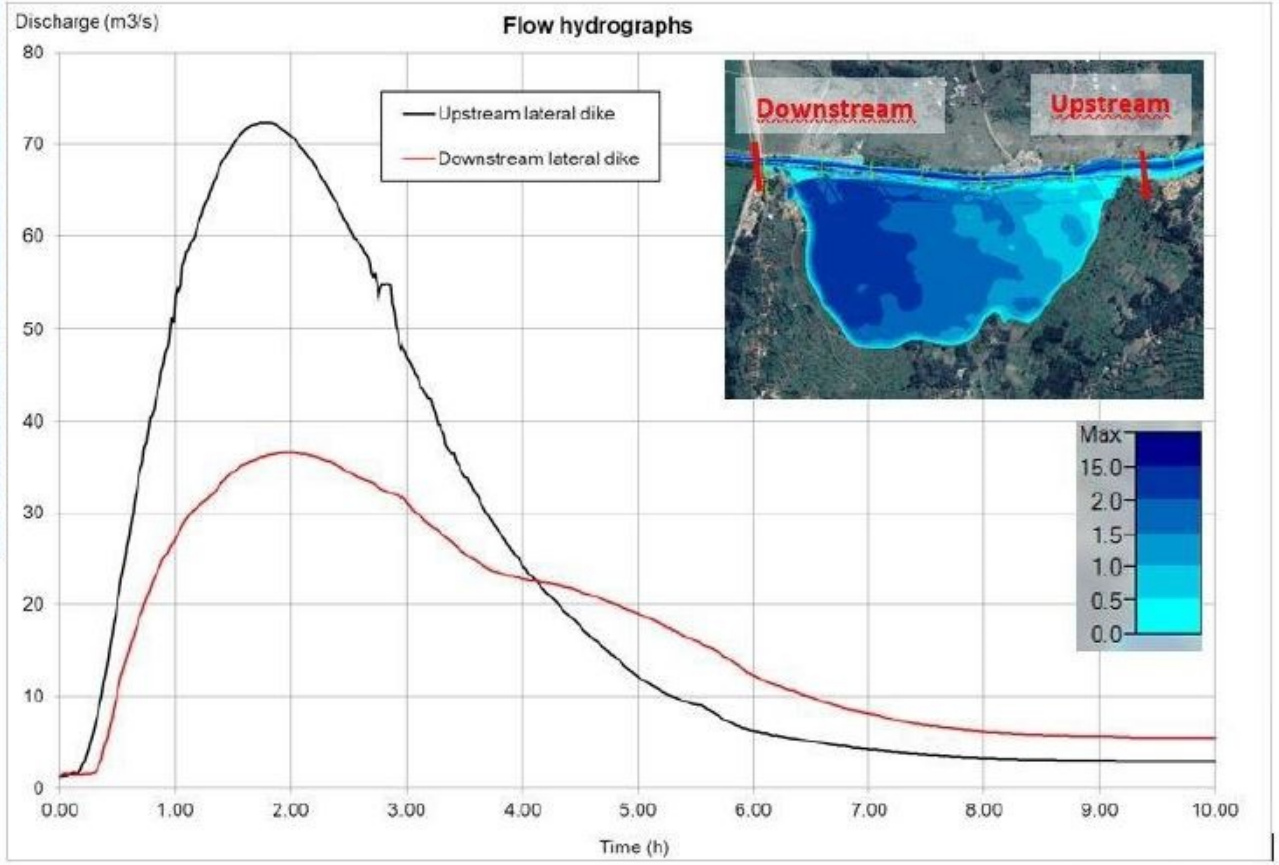
New Insights

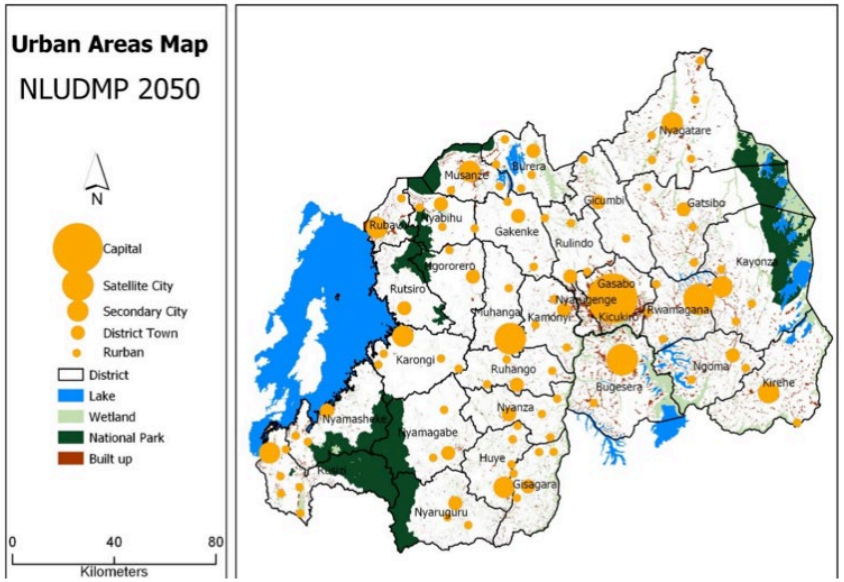
Detailed hydrological and hydraulic modeling of flood hotspots. Sebeya River for example

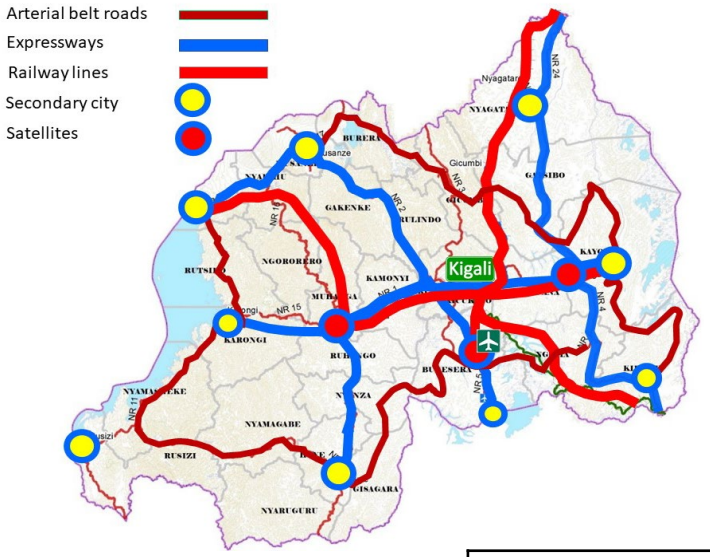


Flood extent

Assessment of mitigation measures



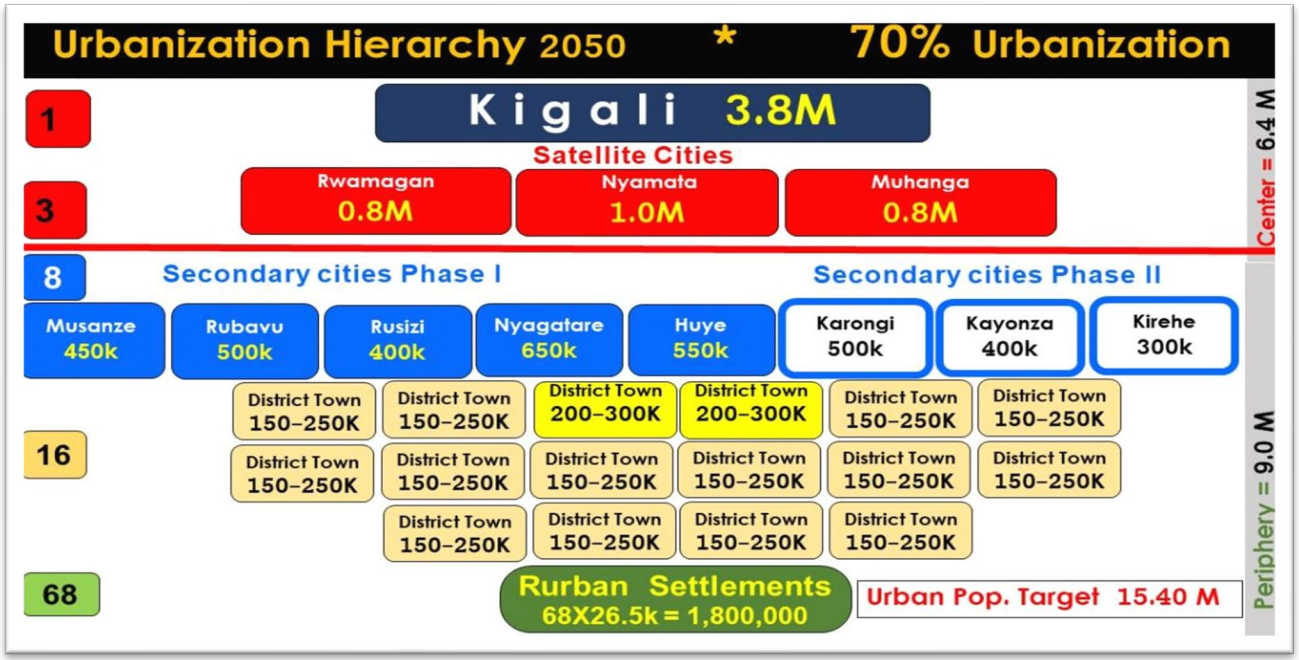




New Insights

Detailed land use planning based on the **Normative Planning approach** and **Interactive approach**

Land Use Balance Sheet



Land Uses	2019 Area sq.km	2050 Area sq.km
Agriculture	10,949	12,433
Forests	7,242	7,320
Built up and Infrastructure	2,888	3,980
Water bodies and buffer zones	1,637	1,637
Wetlands and buffer zones	**2,068**	**968**
• Protected wetlands	480	480
• Conditional use wetlands	1,283	183
• Buffer zones	305	305

Context of the Updated NDC 2020

Vision 2050

The vision 2050 set water resources targets in terms of Renewable water resources availability per capita per annum based on international standards for middle income and high income country in 2035 and 2050 respectively (water productivity, water resources infrastructure dvlpmt, etc.).

Extract from the Vision 2050 indicators

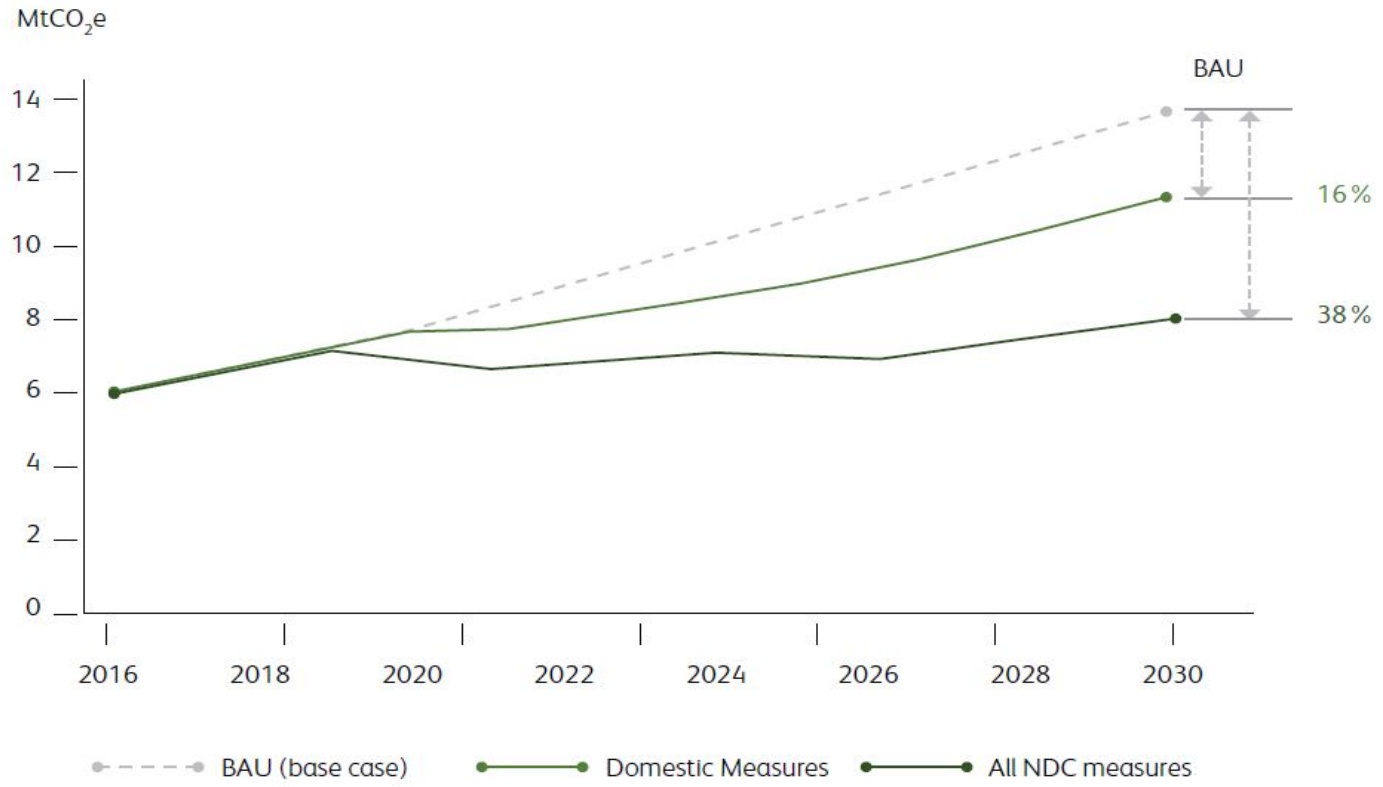
Objective	No.	Indicator	Baseline (2020)	Target (in 2035)	Target (in 2050)
Urbanization as a driver of growth	30	Proportion of urban population living in slums, informal settlements or inadequate housing (%)	62.6 (2016/17)	44	20
	31	Land used according to the National Land Use and Development Master Plan (NLUDMP 2020-2050) (Km^2)	Agriculture: 10,949km^2 Built-up areas and infrastructure: 2,888 km^2 Forests: 7,242 km^2 Water bodies and their buffer zones: 1,637 km^2 Wetlands and their buffer zones: 2,068 km^2	Agriculture: 11,691km^2 Built-up areas and infrastructure: 3,434km^2 Forests: 7,483 km^2 Water and protected wetlands: 2,200 km^2	Agriculture: 12,433km^2 Built-up areas and infrastructure: 3,980km^2 Forests: 7,725 km^2 Water and protected wetlands: 2,200 km^2
	32	Renewable water resource availability per capita per annum (m^3/capita/annum)	670 (2015)	1,000	1,700

Updated NDCs

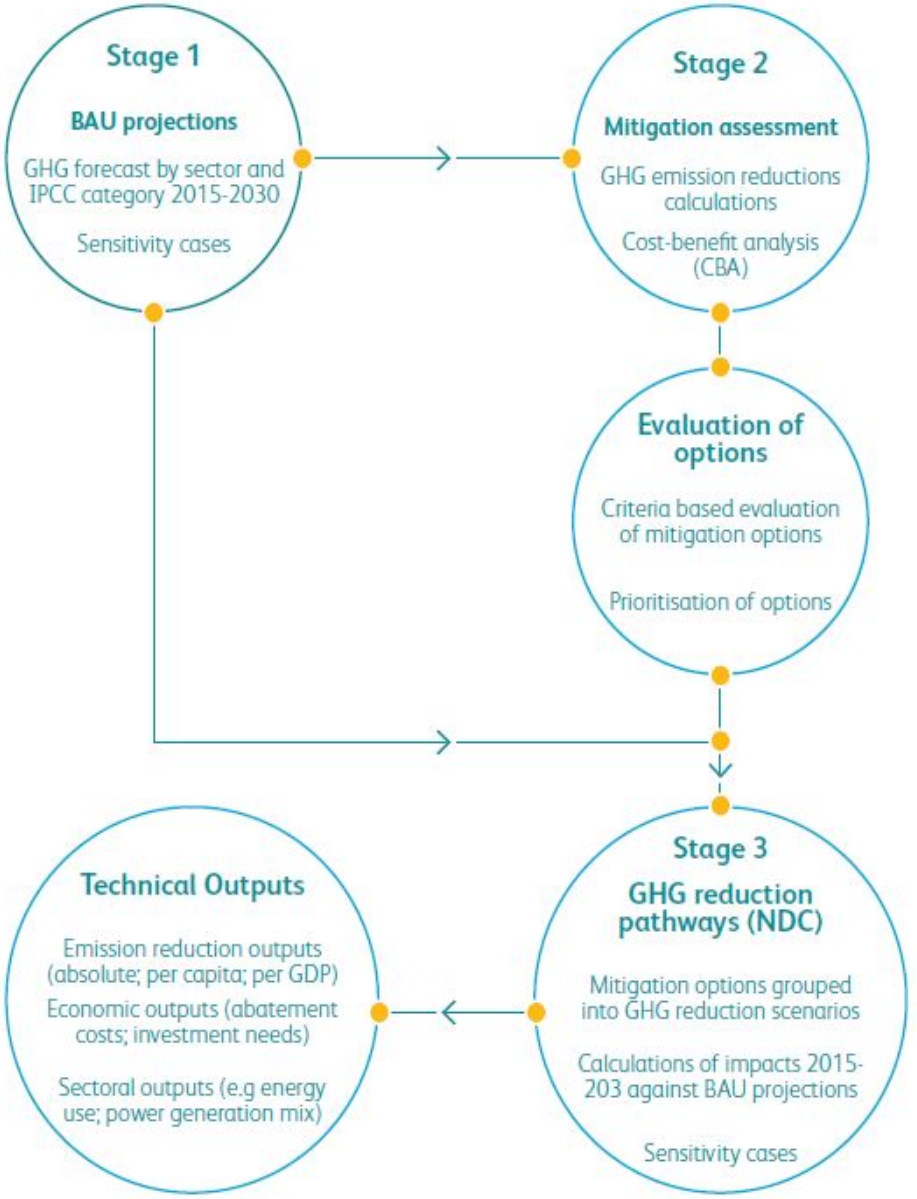
The revised NDC is:

- Updating and strengthening the first NDC for both the mitigation and adaptation contributions;
- Informed by improved data collection, in-depth technical analysis and extensive stakeholder engagement;

Mitigation Measures are based on detailed sector- and project-based modelling undertaken to estimate the country's mitigation potential and develop quantified conditional and unconditional contributions up to 2030.



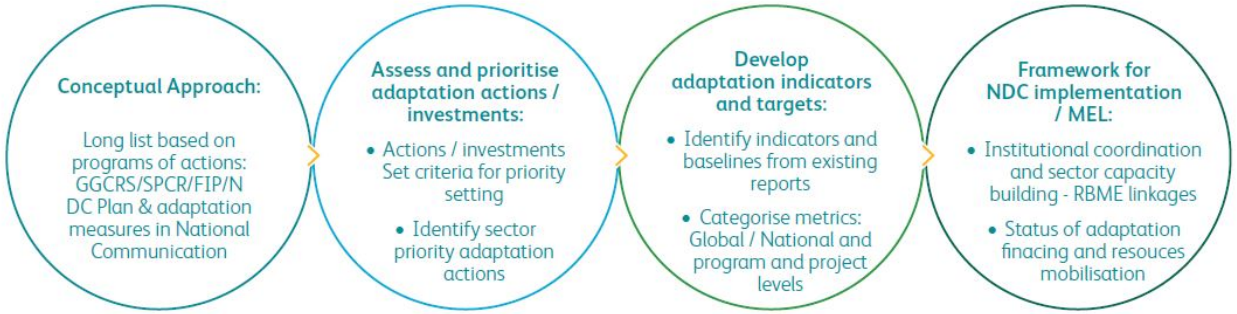
Analysis of mitigation potential



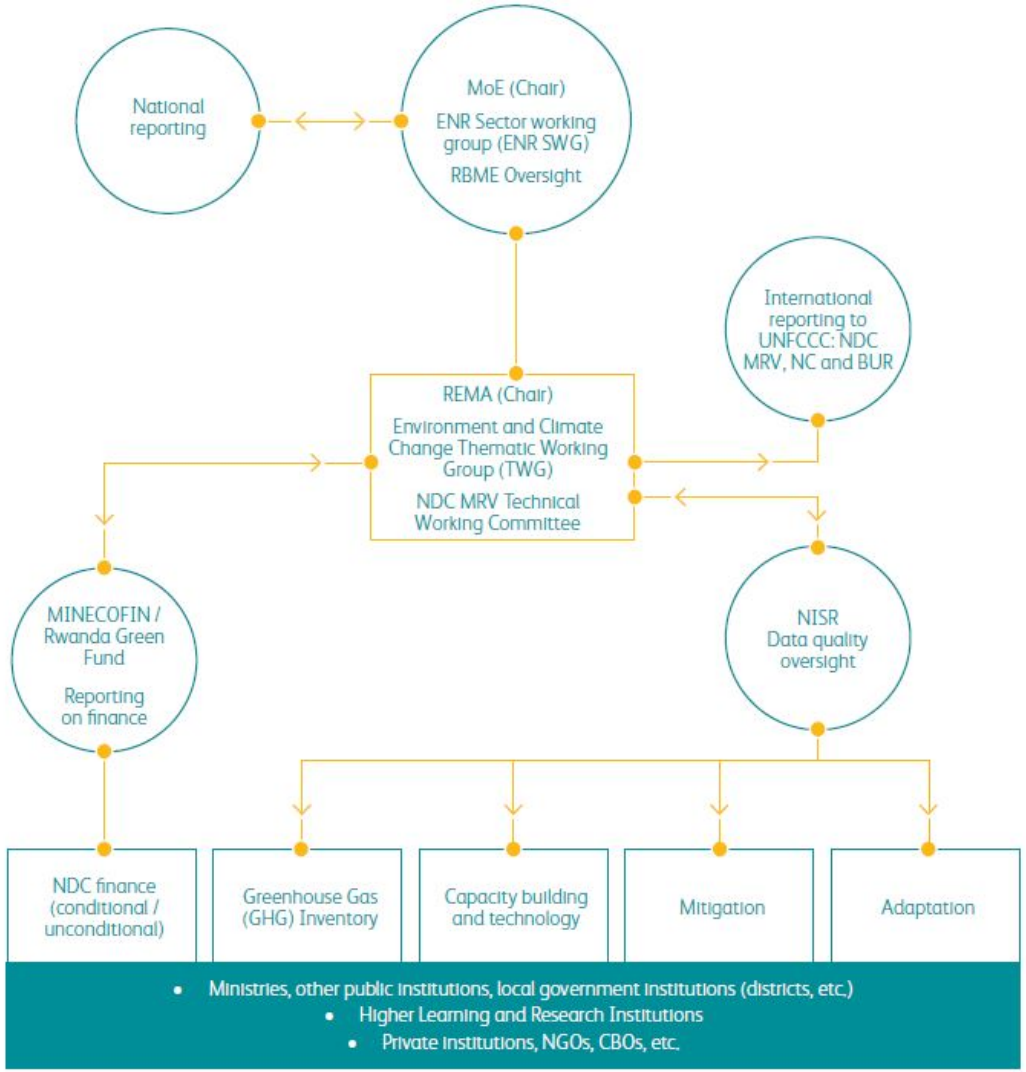
Updated NDCs

- **Adaptation measures** were based on producing quantified targets for adaptation/resilience, with a clear prioritization of intervention (based on the NDC Partnership Plan) and a robust monitoring and evaluation (M&E) framework;
- The overall implementation of the NDCs will rely on the Measurement, Reporting and Verification (**MRV**) system (currently at validation stage), enabling the country to monitor the effectiveness of its mitigation and adaptation measures and facilitating its access to climate finance.

Analysis and scope for adaptation work



Institutional arrangements for tracking Rwanda's NDC MRV implementation



Updated NDCs: Mitigation

Measures	Timeline			Line ministry (Implementing entities)	Funding estimates 2015-2030	Adaptation benefits	Alignment with SDGs
	2015-2020	2020-2025	2025-2030				
Unconditional measures							
Crops and managed soils							
Soil and water conservation (crop rotation) Continous crop rotation of up to 600,000 Ha, leading to prevention of soil erosion and reduction of CO2 and N2O emissions and carbon sequestration in soils.		✓	✓	MINAGRI, MOE (RAB, RFA, RWRB)	235 million USD	Increased food security through enhanced soil fertility, increased crop stability and reduced soil erosion. Cleaner water provision, through reduced nutrient and soil runoff.	
Soil and water conservation (terracing) Installation of 165,000 Ha land protection terracing structures in sloped arable areas to present soil erosion, leading to reduction of CO2 and N2O emissions and carbon sequestration in soils.		✓	✓	MINAGRI (RAB)	924 million USD	Increased food security through enhanced soil fertility, increased crop stability and reduced soil erosion. Cleaner water provision, through reduced nutrient and soil runoff.	
Soil and water conservation (multicropping) Multicropping of coffee and bananas of up to 40,000 Ha, leading to prevention of soil erosion and reduction of CO2 and N2O emissions and carbon sequestration in soils.		✓	✓	MINAGRI (RAB, NAEB)	173 million USD	Increased food security through enhanced soil fertility, increased crop stability and reduced soil erosion. Cleaner water provision, through reduced nutrient and soil runoff.	
Conservation tillage: Reduction in vertical movement of soil, leaving more crop residue on the soil surface, thereby reducing soil erosion, reduction of CO2 and N2O emissions and carbon sequestration in soils.		✓	✓	MINAGRI (RAB)	128 million USD	Increased food security through enhanced soil fertility, increased crop stability and reduced soil erosion. Cleaner water provision, through reduced nutrient and soil runoff.	

Updated NDCs: Adaptation

SN	Intervention	Indicator	Line Ministry (implementing entities)	Timeline 2020-2025	Timeline 2025-2030	Category of indicator	Funding estimate	Mitigation benefits	Alignment with SDGs
Water									
1	Develop a National Water Security through water conservation practices, wetlands restoration, water storage and efficient water use	Water storage per capita	MoE/MINAGRI (RWRB/ REMA/ RAB, Private sector)	✓	✓	A	164.3 million USD	Improved quantity and quality of water resources which sustain new and existing hydropower plants	
		Renewable water resource availability per capita per annum (m^3 / capita/a)	MoE / MININFRA (RWRB/REMA/ WASAC, Private sector)	✓	✓	B			
2	Develop water resource models, water quality testing, and improved hydro-related information systems	Percentage of catchments with water balance and allocation models	MoE (RWRB/ Private sector)	✓	✓	B	10 million USD		
3	Develop and implement a catchment management plan for all Level 1 catchments	Number of operational hydrological stations	MOE (RWRB/ Private sector)	✓		B	360 million USD		
		Percentage of water bodies with good ambient water quality	MoE (RWRB/ Private sector)	✓	✓	B			
Agriculture									
7	Develop sustainable land management practices (soil erosion control; landscape management)	Area of Land under erosion control measures and used optimally	MINAGRI (RAB, NAEB, RLUMA, Districts, Private sector, Civil society)	✓	✓	B	346.1 million USD	Reduced GHG emissions from improved land use changes	
		Percentage of arable land (to the land area)		✓	✓	A			
8	Expand irrigation and improve water management	Number of hectares under irrigation within IWRM framework	MINAGRI/ MoE (RAB, NAEB, RLUMA, RWRB, Districts, Private sector, Civil society)	✓	✓	A	2,261 million USD	Efficient irrigation reduces nitrogen losses including emissions from nitrous oxide	

Updated NDCs: Adaptation

Land and Forestry									
10	Development of Agroforestry and Sustainable Agriculture (control soil erosion and improved soil fertility)	Change in land area covered by agroforestry	MINAGRI / MoE / MINALOC, (RAB, REMA, RLUMA, RFA, Private sector, Civil society)	✓	✓	A	92 million USD	Improved GHG sink capacity/ reduced emissions	
13	Integrated approach to planning and monitoring for sustainable land management	National land use development master plan (NLUDMP) that includes comprehensive measures and procedures for sustainable land use practices	MoE / MINAGRI / MININFRA / MINALOC (RLUMA, RAB, RHA, REMA, RFA, Districts, Private sector, Civil society)	✓		B	60 million USD	Reduced GHG emissions from efficient land use and transport plus increased surface area for carbon sink	
		Detailed spatial plans for all districts		✓	✓	B			
		% of compliance of land use development plans (LUDP) to the NLUDMP		✓	✓	B			
	Human Settlements								
17	Storm water management	Percentage of urban population in areas covered by master plans with storm water considerations		✓	✓	B	400 million USD	Sustenance of new and existing hydropower plants	

Updated NDCs: Adaptation

	Mining								
20	Climate compatible mining	Percentage of companies deploying climate compatible mining	MoE/ MINICOM (RMB, Private Sector, Civil society)	✓	✓	B	59.3 million USD	Reduced GHG emissions from energy efficiency measures	
	Cross-cutting								
21	Disaster risk monitoring	Population covered by Disaster risk reduction (DRR) programs	MINEMA / MoE (Meteo Rwanda, REMA, RWRB, MINALOC, MINININFRA, NISR)	✓		B	20 million USD	Reduced GHG emissions from community-based DRR programs such as improved farming techniques	
		Number of effective city contingency plans developed		✓	✓	B			
22	Establish an integrated early warning system, and disaster response plans	Percentage of extreme weather events for which advance warning was provided at least 30 minutes in advance		✓	✓	A	10 million USD		

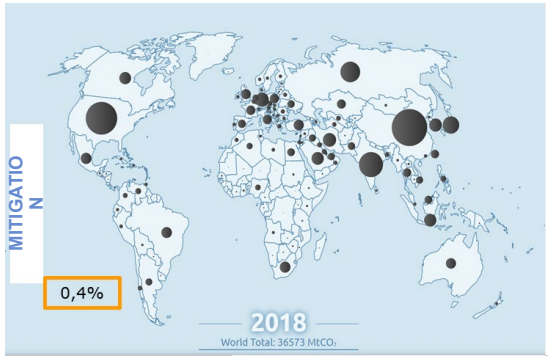
Colombia's Experience

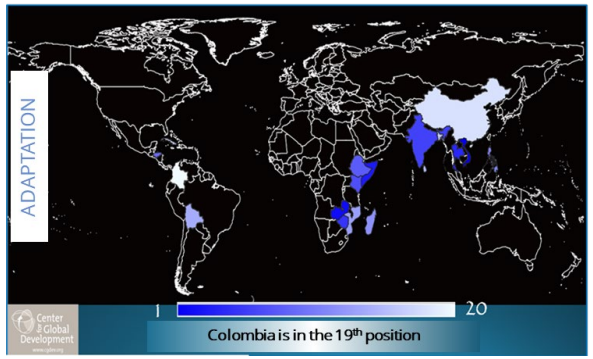
Ing. Oscar Galvis

Coordinator of the Mines and Energy sector within the Colombian Strategy of Low carbon, Adaptation and Resilient Development

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

Asymmetric condition under the Climate Change perspective





The national and local governments have understood the importance and relevance of Climate Change Management as a foundation for the Sustainable and economic growing.

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

01

National Adaptation Plan

PNACC

02

Low-Carbon Colombia

- Supporting the NDC implementation plan.

COLOMBIA BAJA EN CARBONO ADAPTADA Y RESILIENTE

03

National Disaster Risk Management Plan

Plan Nacional de Gestión del Riesgo de Desastres

Una estrategia de desarrollo

04

National Climate Finance Strategy

05

Climate Change Sectoral Plans

- Mines and energy sector by 2018
- Water and basic sanitation by 2020

PIGCCme

Plan Integral de Gestión del Cambio Climático / Sector Minero Energético

06

Climate Change Territorial Plans

24 Climate Change Territorial Plans developed

Cap-Net · UNDP · Global Water Partnership · AGWA · SIWI · WATER GOVERNANCE FACILITY

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

SISCLIMA
(Climate Change National System)

NDC 2020

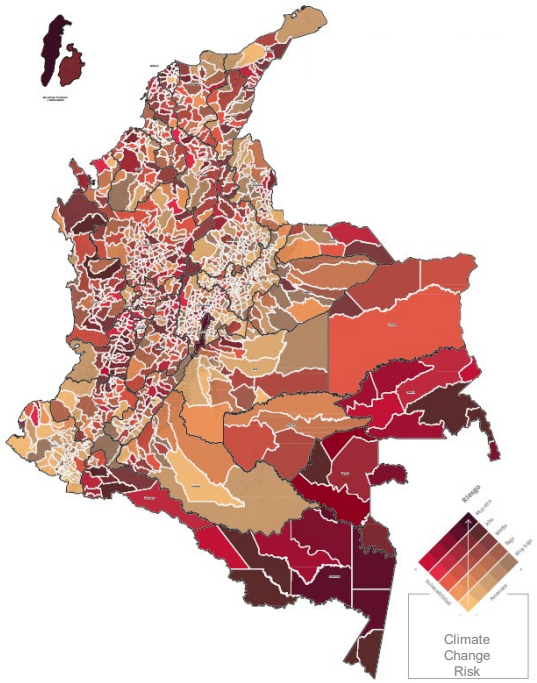
- Human Rights ✓
- Intergenerational equity ✓
- Just transition of the workforce ✓
- Gender equity and empowerment of women ✓
- Ecosystems integrity ✓
- Biodiversity protection ✓
- Food security ✓
- Eradicating poverty ✓
- Production and sustainable consumption ✓

✓ *Direct relationship with water management*

✓ *Benefits of / to water management*

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

National Communication on Climate Change (2015 – 2017)



Food security	34.6%
Water resources	4.9%
Biodiversity	10.0%
Health	6.4%
Human Habitat	26.2%
Infrastructure	17.9%

SENSITIVITY: Food security and infraestructure have the highest contribution to the whole national vulnerability to Climate change

ADAPTIVE CAPACITY: Except by the biodiversity and health, all the defined dimensions have a low adaptive capacity

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

Upgraded NDC 2020

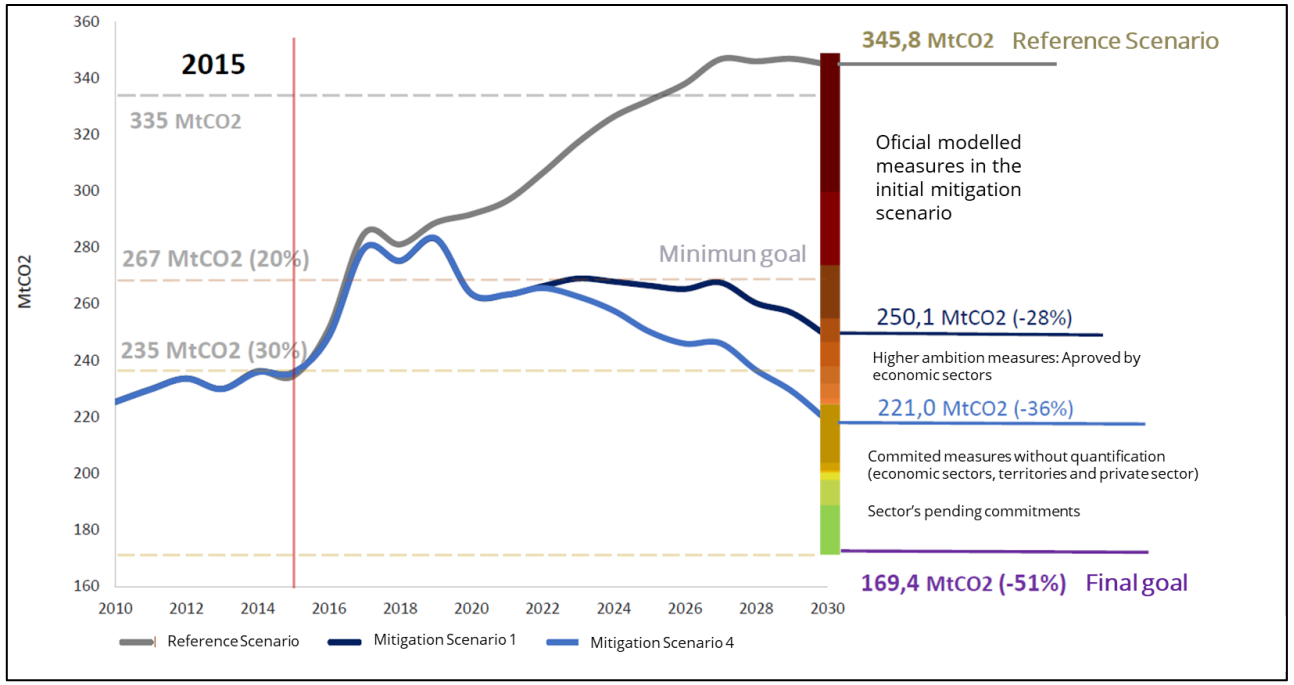
- Up to date information
- Improved quantification methodology
- Specific actions and identified responsible
- First Adaptation Communication
- New topics included

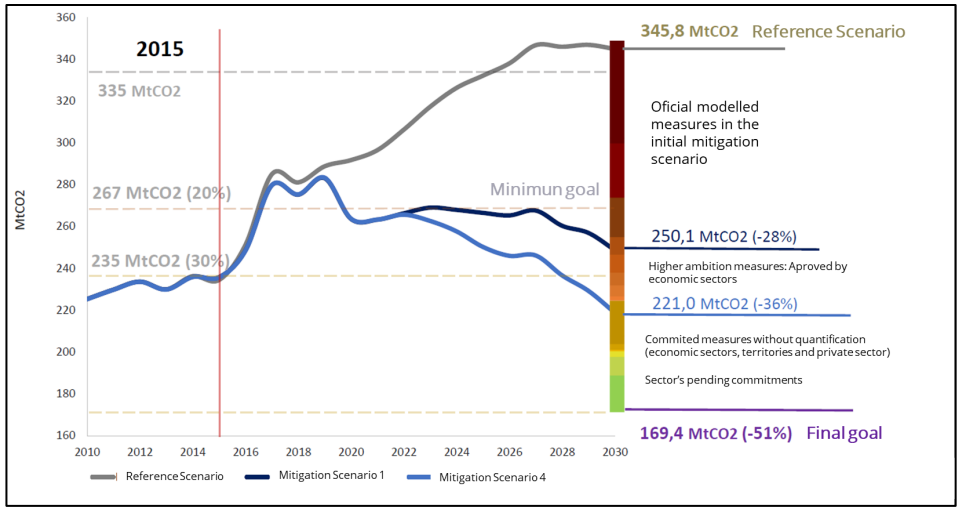
COLOMBIA BAJA EN CARBONO ADAPTADA Y RESILIENTE

Climate Change Adaptation Goals

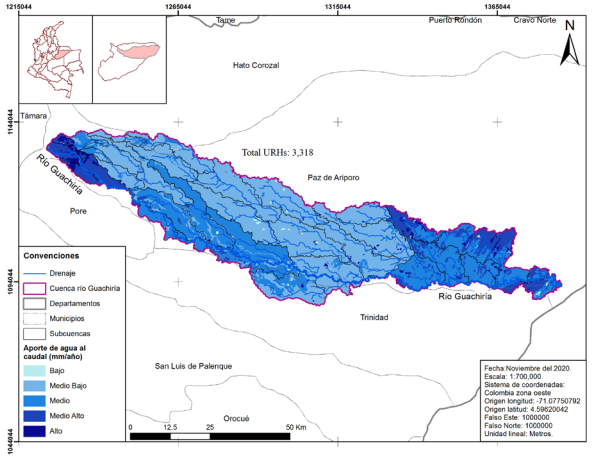
Housing sector	4 WM related goals
Health sector	2 WM related goals
Mines and Energy sector	2 WM related goals
Industry sector	
Transportation sector	2 WM related goals
Agriculture sector	3 WM related goals
Environment sector	8 WM related goals

WATER MANAGEMENT: Support and new strategy of the Colombian NDC





WATER MANAGEMENT: Support and new strategy of the Colombian NDC



Mines and Energy sector approach – EbA

Ecosystemic services – Water regulation as risk meassurement

1. Conservation areas as Natural Reserves managed by the community

2. Integrated water management

3. Sustainable and productive landscape management

Water regulation = Adaptation Output variable

WATER MANAGEMENT: Support and new strategy of the Colombian NDC

How water management is included Deforestation?

135 Management Plans of watersheds will contain climate change and climate variability guidelines

In 2030, Colombia will count with a systematic process to manage forest fires riks

Greenhouse gas emission reduction equivalent to reduce the deforestation rate to 50.000 has/year in 2030

100% of Colombian moorlands will be delimited and with conservation, management and adaptation actions implemented

COLOMBIA BAJA EN CARBONO ADAPTADA Y RESILIENTE

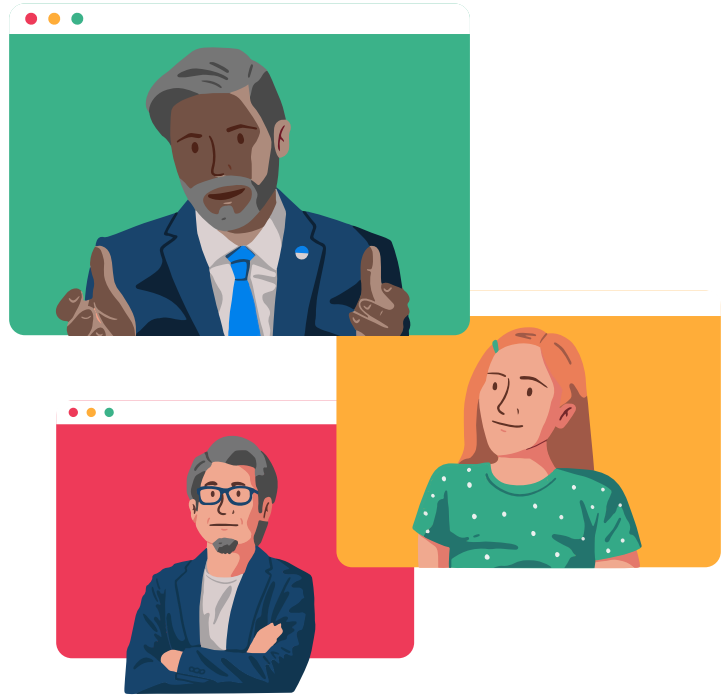
WATER MANAGEMENT: Support and new strategy of the Colombian NDC

Challenges

- How to create a synergy between the governmental developments and the territorial needs, regarding to water management? Water Governance
- Interdisciplinary approach based on ecosystemic services
- Illegal activities
- Bottom-up and real time data
- Climate change financial gap

Webinar 2: Promoting Implementation

When: 25 February, 2021 13:00 hrs Central European Time – 11 AM in Universal Time UTC



What: From Commitments to Implementation

In our second webinar the conversation aims to share experiences in preparing documents that include climate change related activities, as well as their lessons from addressing commitments found in the first round of NDC's.

I want to connect: cap-net.org/waterandclimate

Thank you

Open Sans 16