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Deltares

Webinars for Futureproofing with Adaptation Strategies and Financing

Addressing Uncertainty in Coastal Resilience Building

17 October 2023, 12:00 CEST



Webinar Knowledge Kit

Knowledge Kit Content

- Background
- **Presentation:** Banjul Port– Climate Modelling and Risk Assessment
- **Presentation:** Transforming Adaptation – Harnessing the Power of GCF for Climate Financing for the Pacific
- **Presentation:** Rethink the Delta – Netherlands 2100 and moving forward
- Related Links
- Stay Connected

Background

Chair:

Dr. Shahnour Hasan, Senior advisor & Researcher Department of Resilience and Planning, Deltares.

Speakers & Topics:

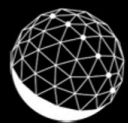
- Professor Joseph Foukona, University of Hawaii – Solomon Islands Case Study
- Mr. Cristian Florindo, Lobelia Earth – Banjul Climate Modelling
- Dr. Bapon Fakhrudin, Water Sector Lead, Green Climate Fund – Coastal Adaptation: Financing and Managing Risk in a Changing Climate
- Mr. Remon Pot, Head of Department Safe and Resilient Infrastructure, Deltares – Netherlands 2100 and moving forward

Watch the recording [here](#).

- As the impacts of climate change continue to intensify, coastal flooding risk will increase, affecting the lives of hundreds of millions of people and putting infrastructure valued between US\$7.9 - 12.7 trillion. Globally, 40% of the population live within 100 km of the coast, and 11% live in low-lying coastal areas, where the impacts of sea level rise could be felt as soon as 2050. Accelerating adaptation efforts is essential to protect people, landscapes, economies, and even the very existence of some islands and deltaic coasts.
- 'Futureproofing: Water and Climate Adaptation' was a webinar series focused on adaptation strategy, practices, and financing for coastal areas, including islands and deltas. The webinar 'Addressing Uncertainty in Coastal Resilience Building', showcased coastal adaptation projects to frame how future-oriented planning and risk reduction can support communities and economic resilience. The series was designed to support the ambition of the International Panel on Deltas and Coastal Areas - to build capacity for effective adaptation planning, governance, and finance.
- Learn more and join the Water Adaptation Community: <https://communities.adaptationportal.gca.org/>
- Learn more about the International Panel on Deltas and Coastal Areas: <https://deltasandcoasts.net/>

Port Expansions in Banjul and Cotonou

Climate Adaptation and Resilience



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AFRICA ADAPTATION ACCELERATION PROGRAM

Lobelia.

Royal
HaskoningDHV
Enhancing Society Together

 CITYSCAPE ASSOCIATES
(A Division of The M.S. Geog Group Ltd.)

Scope

1. Rapid Climate risk assessment

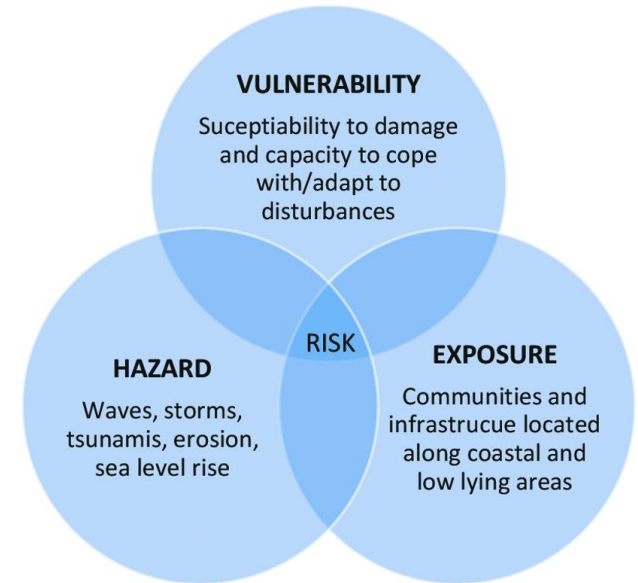
Describing how climate conditions in Cotonou are projected to change over the next 100 years in terms of intensity, frequency and uncertainty of climate hazards.

2. Vulnerability stress test

Investigating how these changing climatic conditions may impact port assets and operations.

3. Climate adaptation and resilience investment rationale

which summarises overall findings on climate risk and quantified impacts and presents the benefits of adaptation in reducing physical climate risk.



Extreme Temperatures



Extreme Precipitation



Drought



Sea Level



Extreme Wind



Extreme Waves

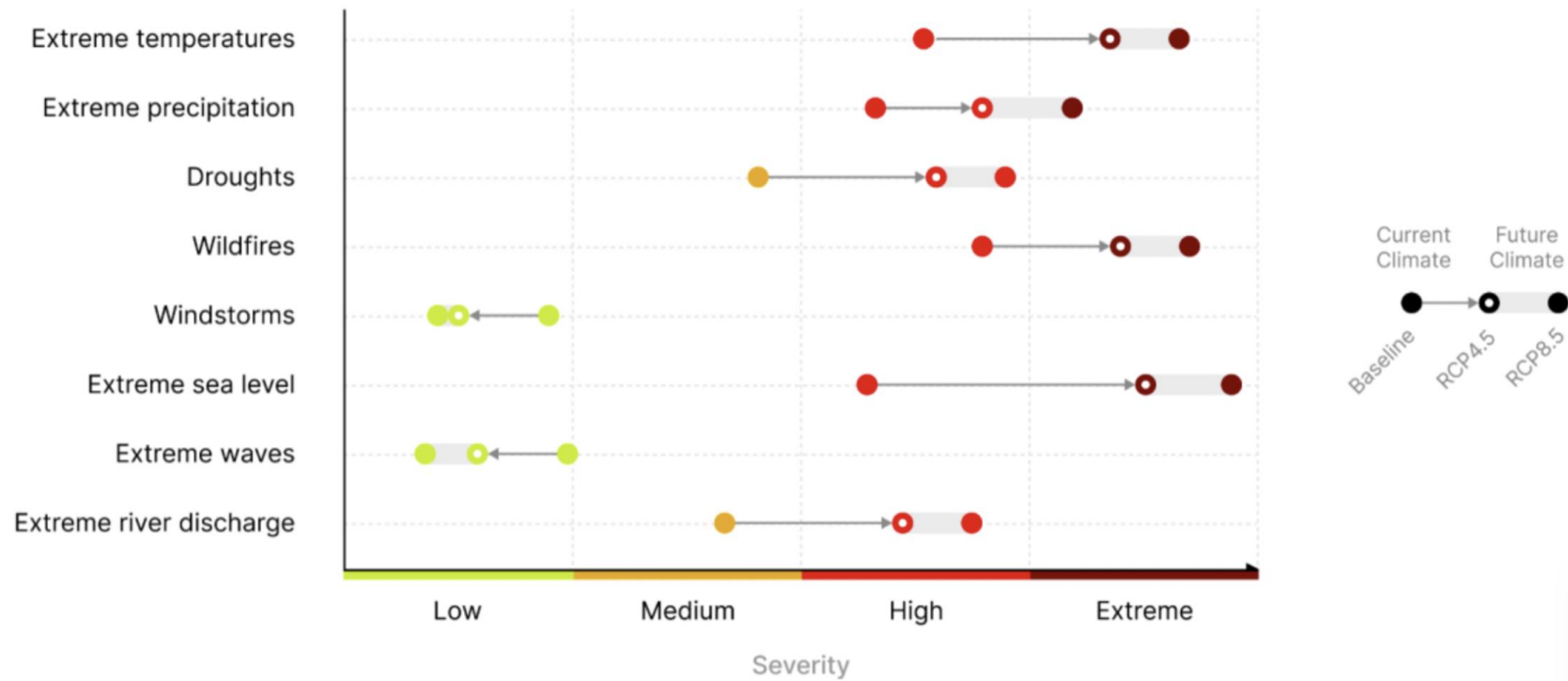


River Discharge



Results: All hazards

Matrix of high-level hazard scenarios in Banjul



Port Asset Categories

- Marine infrastructure
- Roads
- Buildings
- Terminal area
- Ferry terminal
- Marine operations
- Land sided operations

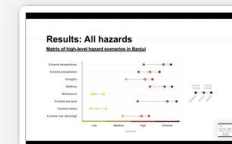
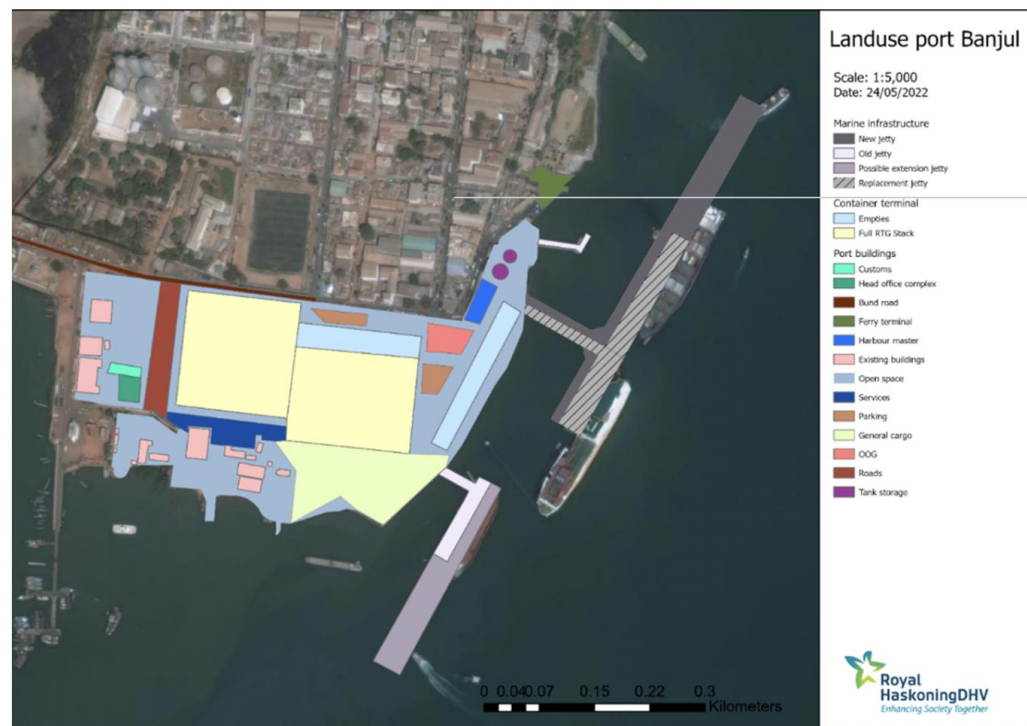





Figure 7: Port layout in current situation (left) and future situation (right) with planned development components

Key insights

- Determine key **climate hazards with local data/expertise**
 - Sea level rise
 - Temperature
 - Precipitation
- Assess **vulnerabilities** of the port and prioritize main **risks**
 - Port operations
- Investigate **adaptation measures** to mitigate risk
 - Physical/infrastructure  Social  Institutional 
 - Benefit-cost ratios

High resolution climate science data is essential for risk assessments at the asset level

Quantify financial and socio-economic benefits that investment in adaptation can bring



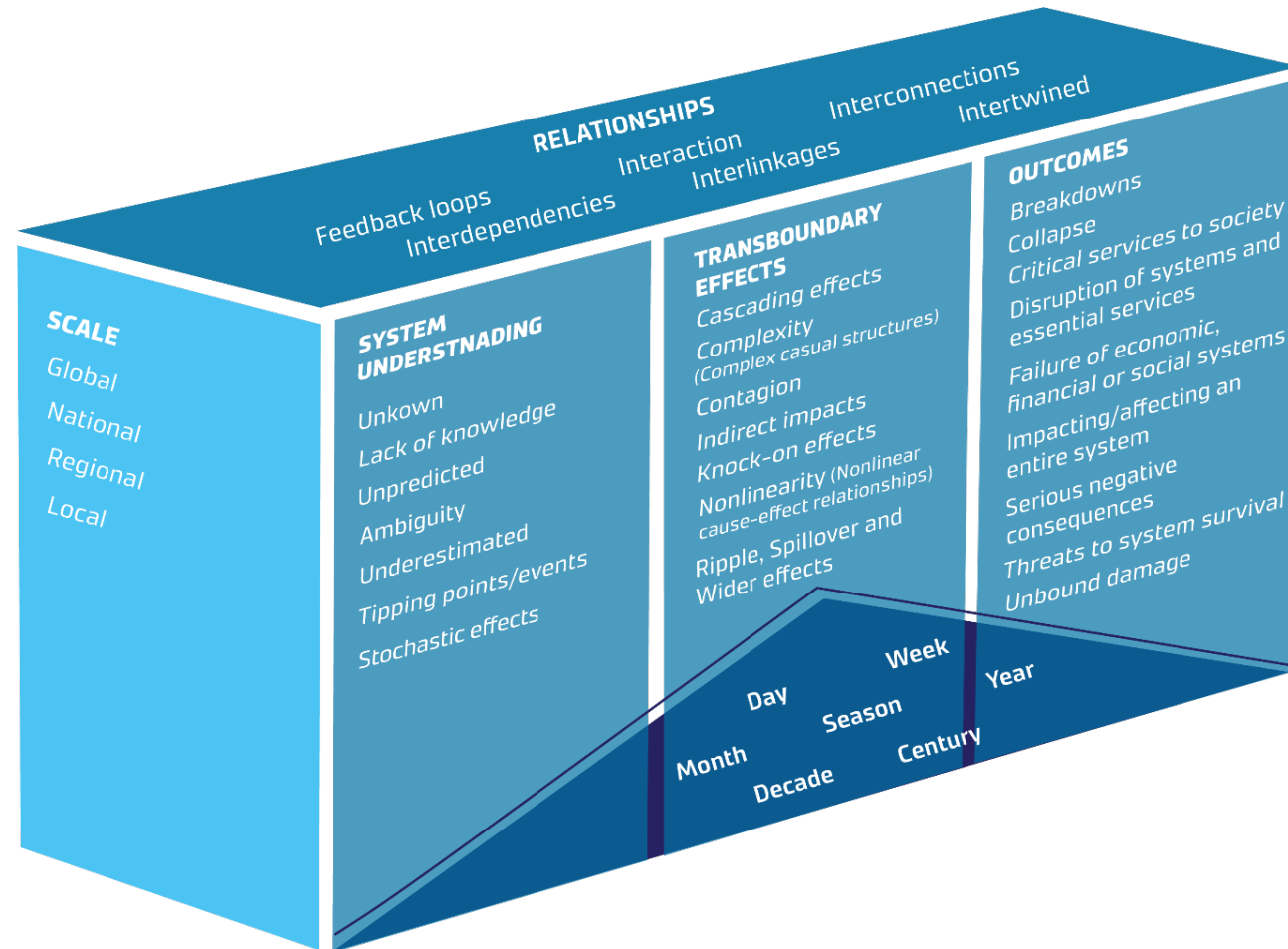


Transforming Adaptation: Harnessing the Power of GCF for Climate Financing for the Pacific

Bapon Fakhruddin, PhD

Water Sector Lead, GCF

Attributes of systematic, interconnected, and cascading risk



Where we focus



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Reduced Emissions from:



Energy generation
and access



Transport



Buildings, cities,
industries and
appliances



Forests and
land use



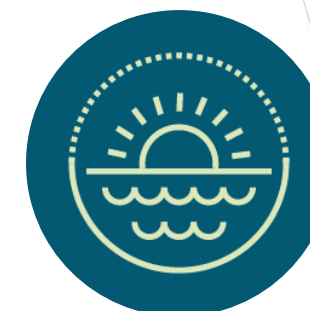
Livelihoods of people
and communities



Health, food and
water security



Infrastructure and
the built environment



Ecosystems and
ecosystem services



How we work

Country Readiness: \$1 M / country / year
National Adaptation Plan: One-Off \$3 M / country
Project Preparation Fund:

- \$1.5 million / Proposal



GREEN CLIMATE FUND

COUNTRY-DRIVEN

- Readiness programme supports country planning
- GCF programming is aligned with country priorities



A RANGE OF FINANCING INSTRUMENTS

- leverage blended finance
- Piloting support for new financial structures

RISK-TAKING, PATIENT CAPITAL

- accept higher risks to support early-stage project development & innovations to catalyse climate finance



AN OPEN, PARTNERSHIP ORGANISATION

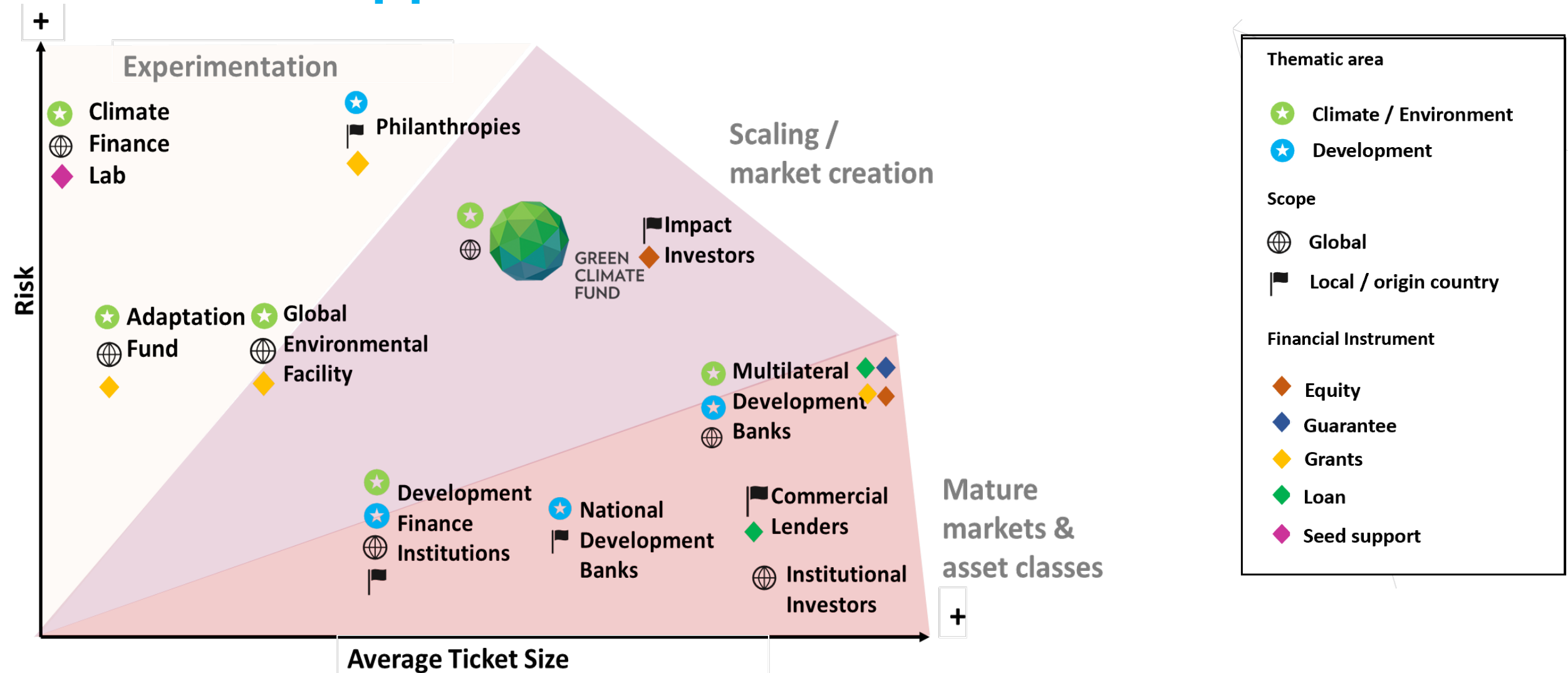
- over 200 Accredited Entities and delivery partners



BALANCED ALLOCATION

- targeting 50:50 allocation between mitigation & adaptation

GCF is positioned for scaling & market creation: A unique nexus of **scale** and **risk-appetite**



Overview of programming directions



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LONG-TERM STRATEGIC VISION (Section 2)

CONTRIBUTION TO 2030 GOALS (Section 3.1)

Meet or exceed
portfolio level
mitigation &
adaptation
results –
> 1.5 GT CO₂-e/
570 million
beneficiaries

2024-2027 PROGRAMMING PRIORITIES (Section 3.2)

Priority 1:
Readiness and
Preparatory
support:
Enhanced focus
on climate
programming
and direct access

Priority 2:
Mitigation and
Adaptation:
Supporting
paradigm-shift
across sectors

Priority 3:
Adaptation:
Addressing
urgent &
immediate
resilience needs
for particularly
vulnerable

Priority 4:
Private Sector:
Promoting
innovation and
catalysing green
finance

50:50 mitigation:adaptation | Floor 50% adaptation to particularly
vulnerable countries, aim to meet or exceed GCF-1 | Increase PSF share (35%)

2024-2027 TARGETED RESULTS (Section 3.3)

11 targeted
results covering
capacity, DAEs,
sectors, MSMEs,
LFIs

MODALITIES, ACTIONS, PARTNERSHIPS TO DELIVER PROGRAMMING (Section 4)

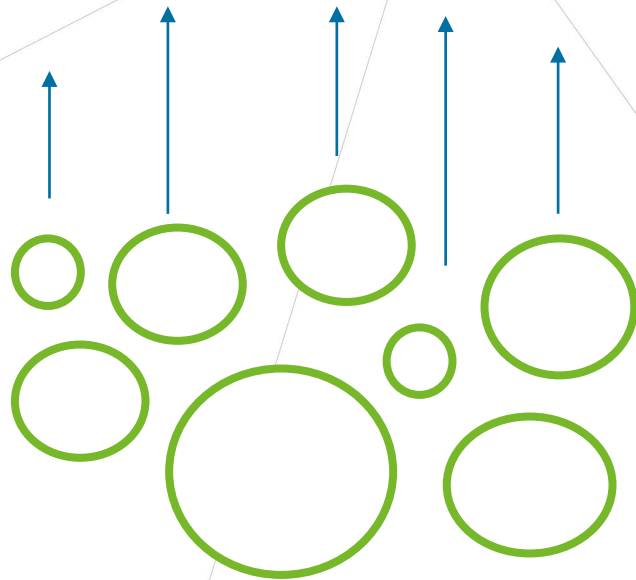
SHIFTING THE MODEL FOR NDC/NAP/LTS IMPLEMENTATION



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Status quo / "incremental" approach

NDC / NAP / LTS



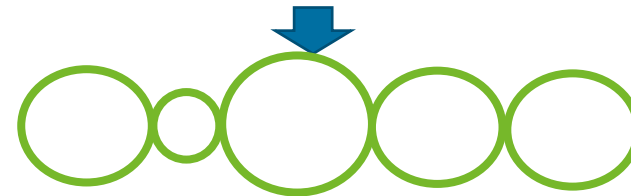
AEs/countries identify discrete project ideas, usually within one sector/area, fitted into the NDC narrative. Climate risk assessments, feasibility studies and project structuring done on a case-by-case basis, with frequent review iterations required.

Desired / "systemic" approach

NDC / NAP / LTS

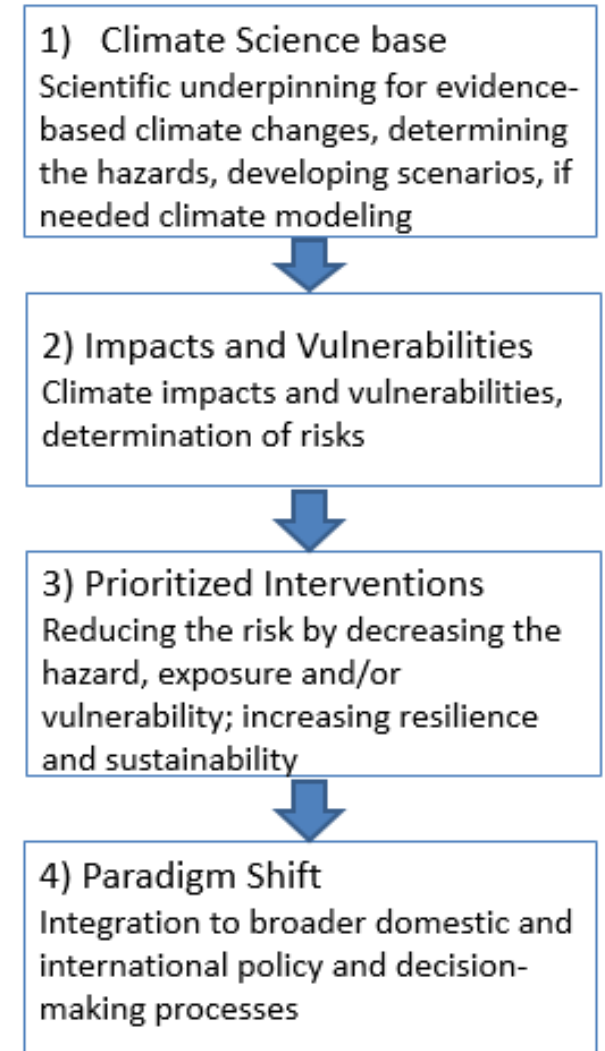
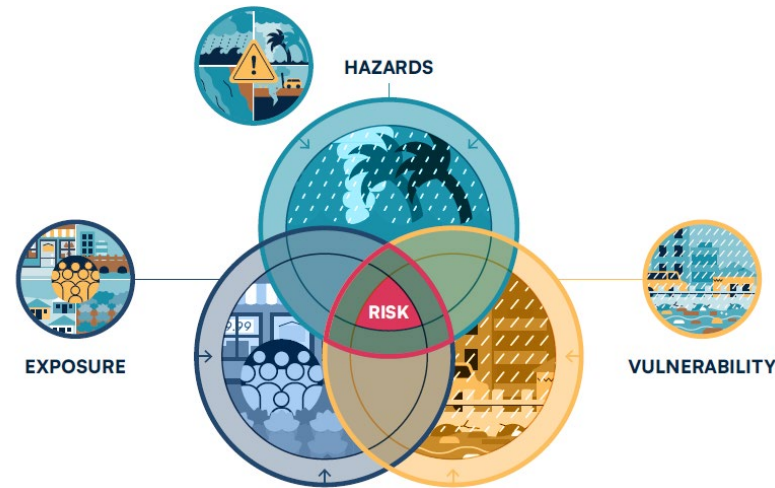
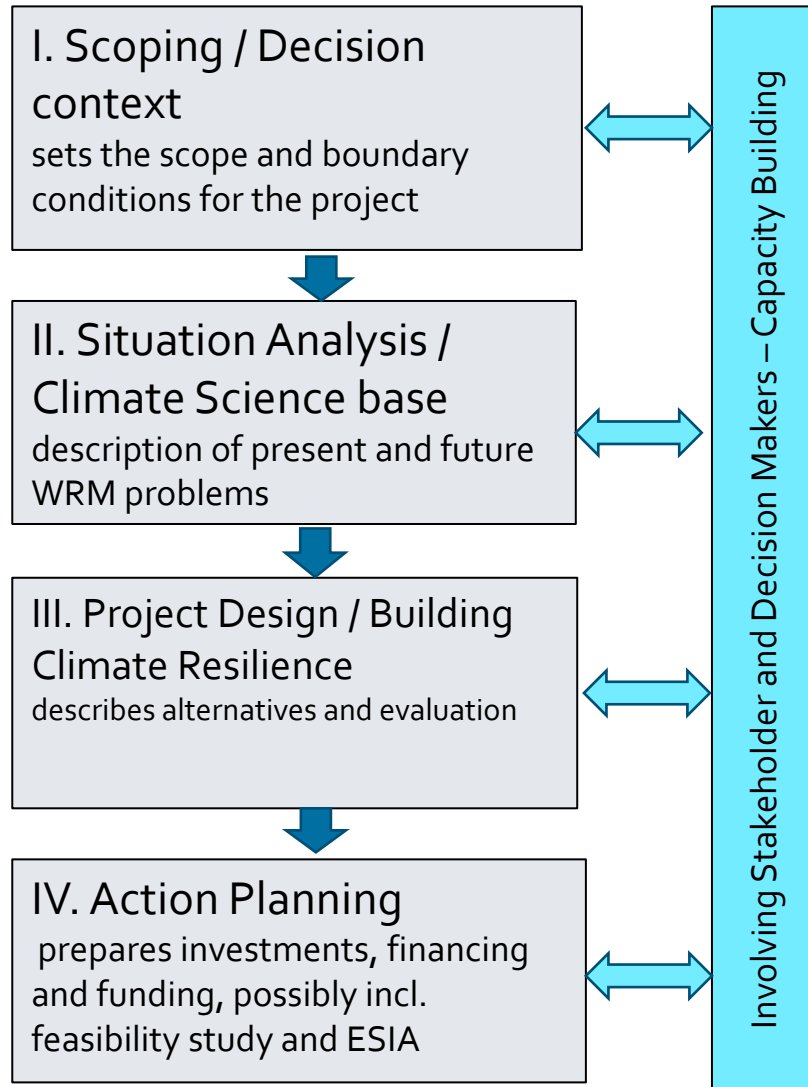
Systemic climate analysis / feasibility assessment – to ID most critical responses

Analysis of financial sources & structuring to optimize bankable projects & use of GCF resources



NDCs guide priority intervention areas. Climate assessments and feasibility studies done at a systems level, looking at trade-offs/synergies across sectors. Leads to analysis of financial sources & structuring of an optimized programme of investments

Structured approach for project design



— GCF is committed to enhancing access



Predictability



Clear resource planning, processes, timeframes



Speed



High rates of approval, implementation, disbursement



Simplicity



Multi-lingualism, PSAA, SAP & performance monitoring



Complementarity



Improved alignment with other funds & AEs, data sharing



Volume



Annual programming targets, measuring catalyzed finance



Partnerships & Direct Access




On-ground engagement, AE network, access strategy



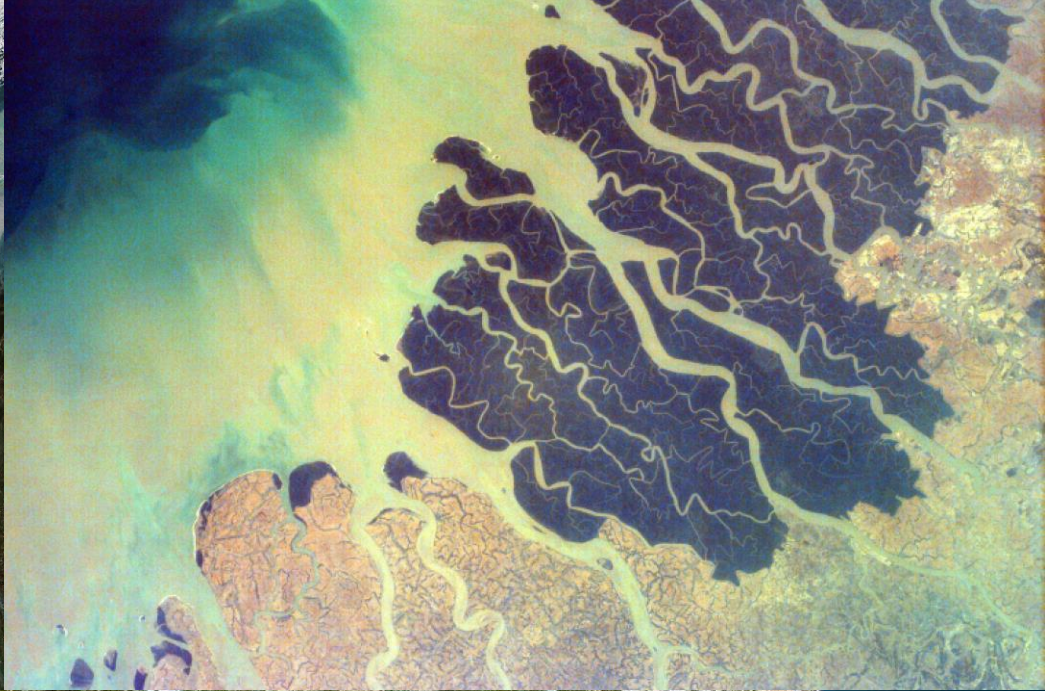
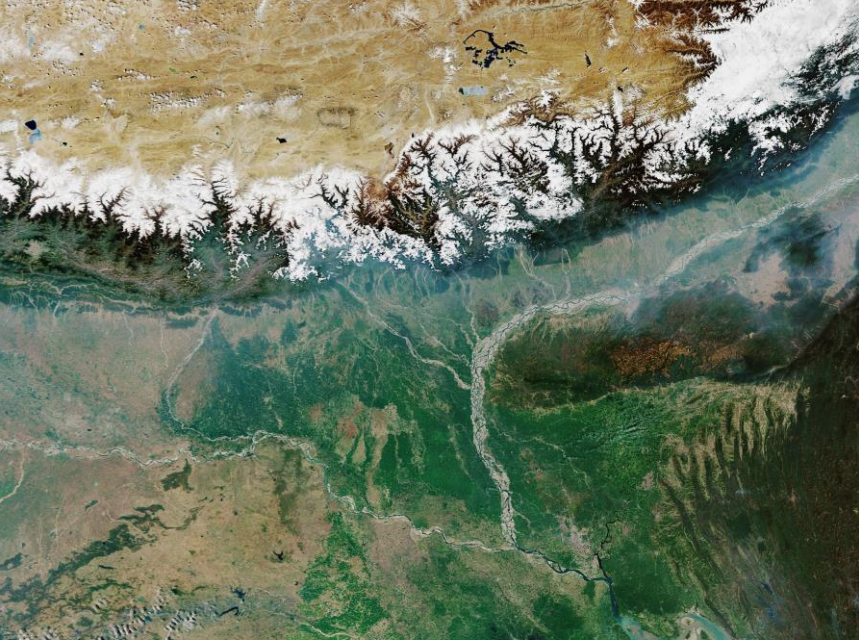
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Raising
ambition.
Empowering
action.

An aerial photograph of a river delta, showing a complex network of channels and distributaries. The water is a deep blue, and the land is a mix of brown and green. A large green circle is overlaid on the left side of the image, partially obscuring the delta's channels. Inside this circle, there is a white text quote and a blue line drawing of a river delta.

“The Netherlands and other deltas in the world remain livable, even with 2-3 meters of sea level rise, land subsidence, long term drought and extreme climate events.”

ReThink the Delta



What?

Our intention:



Build the delta community of the future (a knowledge and acquaintance network)

Develop a large R&D program (+100 mln euros), taking into account the existential threat of extreme sea level rise, subsidence, drought and extreme precipitation and develop solutions.



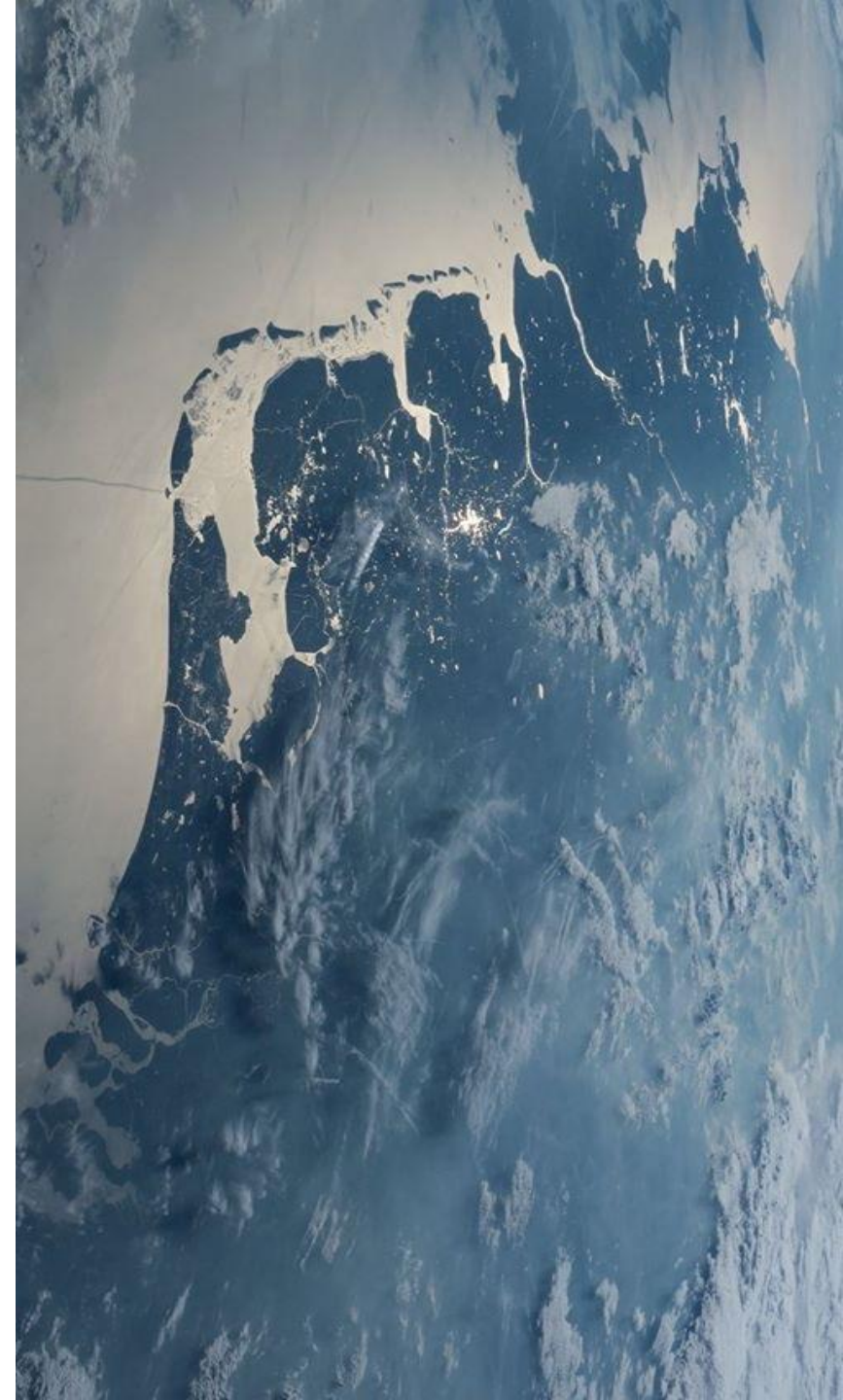
Calculate, draw, design, test, research and develop new (digital) delta technology together:

- connecting long term (100 years) to action over the next 10-20 years
- working together in co-creation
- With public and private stakeholders



To learn and exchange views with other deltas.

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How?

Physical

- several meters of sea level rise incl. high impact, low likelihood scenarios
- other climate extremes extreme rainfall, high and low river discharge, drought
- land subsidence
- population growth; energy transition, housing and new urban developments and biodiversity loss

Process

- Public/private partnership
- In co-creation
- Open community

Geography

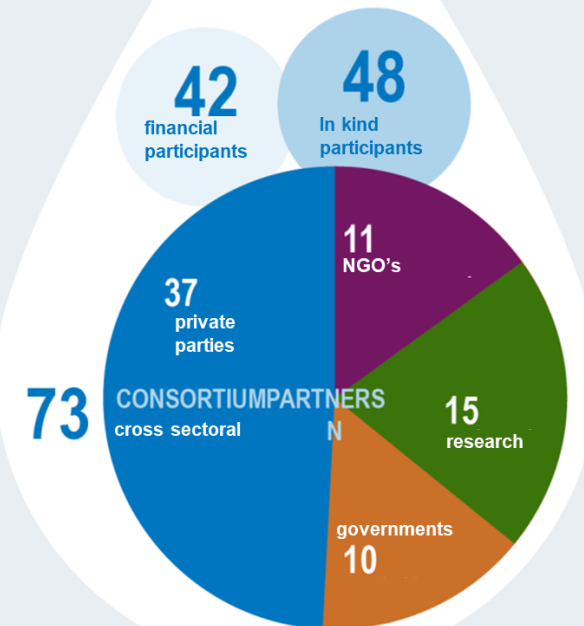
- Rhine Meuse Catchment
- Dutch coastal system, estuaries and inland water ways
- Rotterdam Ruhr Corridor
- Different scales

International

- Learn from climate Resilient development of coastal zones and deltaic cities and bring state of the art know-how
- Use cases in 10 cities around the world

RETHINK THE DELTA

> 450
ecosystem



Partners and users

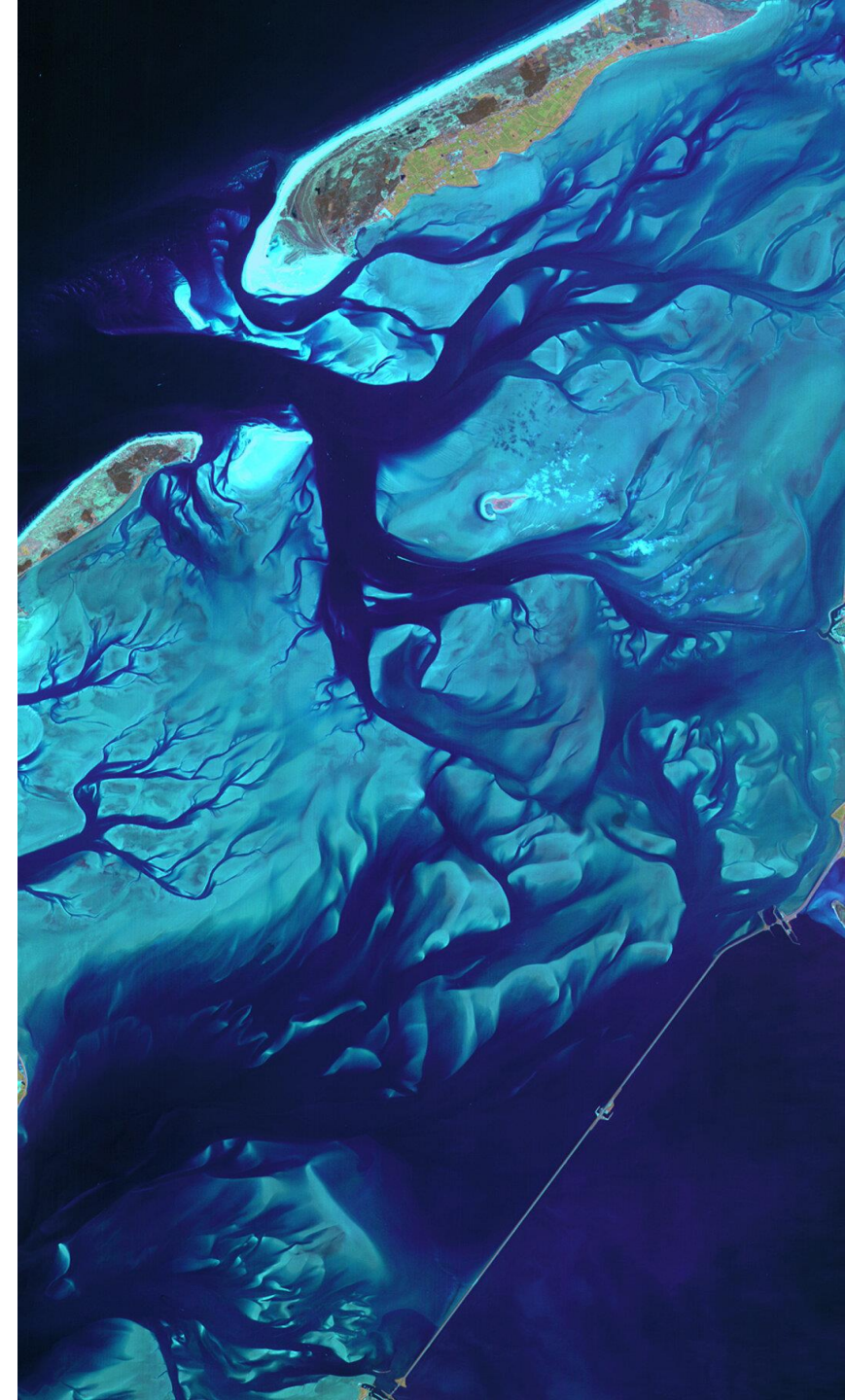
Partners



Users



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Related Links

- [The Geography of Future Water Challenges - Bending the Trend - PLB Netherland Environmental Assessment Agency Report](#)
- [Webinar Recording](#)

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<p>https://communities.adaptationportal.gca.org/</p>	<p>https://gca.org/gca-events/</p>	<p>https://www.linkedin.com/groups/14262070/</p>	<p>https://gca.us7.list-manage.com/subscribe?u=6dfa0ea942c9f12e85f30d962&id=70f1cb250c</p>



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