



IPReM

Greater Caribbean 2023

IDENTIFICATION | PROTECTION | RESTORATION | MANAGEMENT

JUNE 28th-30th, PANAMA

*Science and technology for sustainable beaches
in a climate change scenario*



Climate Action Plan



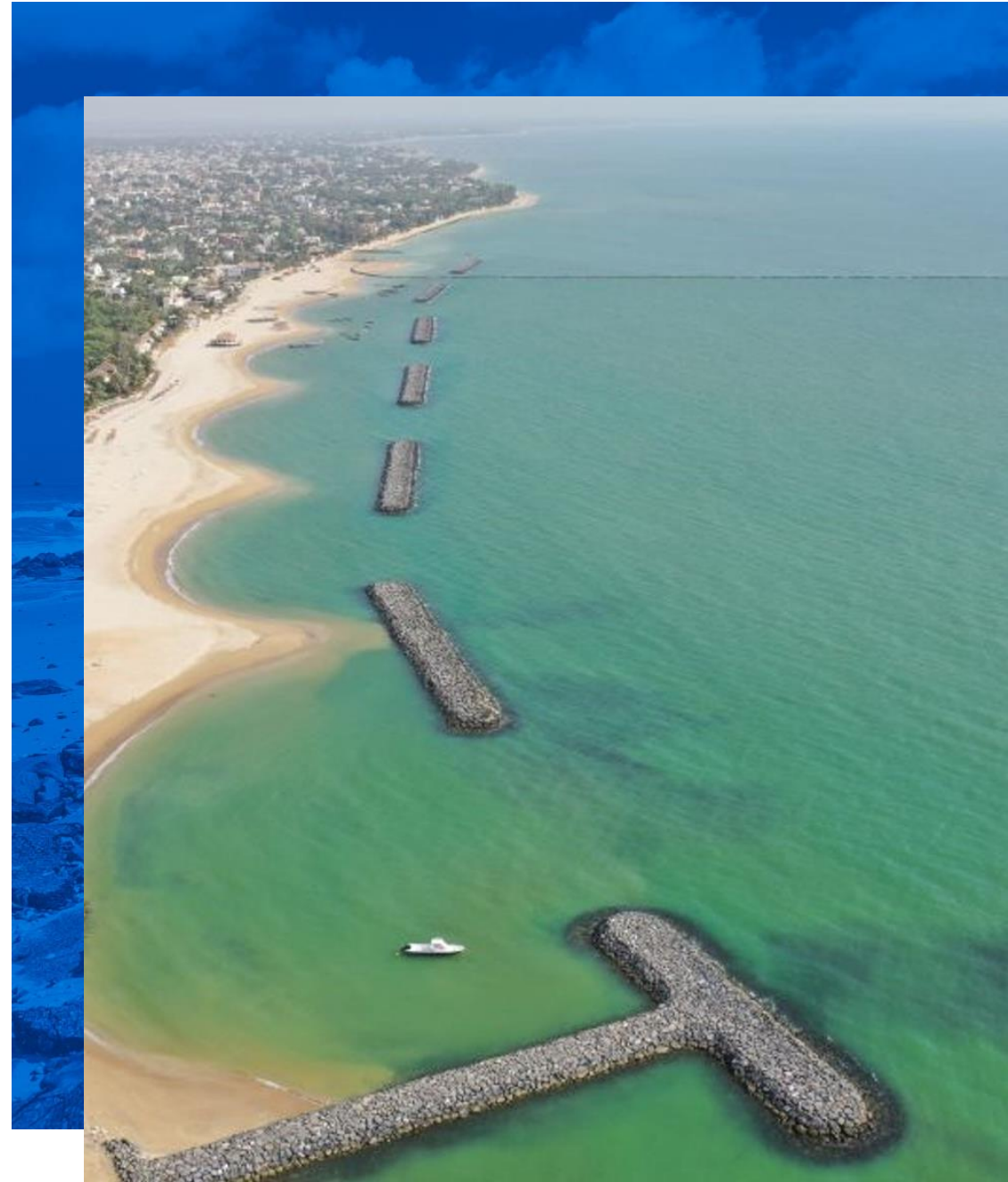
IMPLEMENTING NATURE-BASED SOLUTIONS IN COASTAL PROTECTION

At Van Oord we want to be pro-active and help to develop coastal protection and increase the use of NBS to create a better world for future generations



Reinout Viersma

Programme Manager Climate Adaptation Van Oord



CLIMATE ACTION PLAN FOR IMPLEMENTING NATURE-BASED SOLUTIONS IN COASTAL PROTECTION

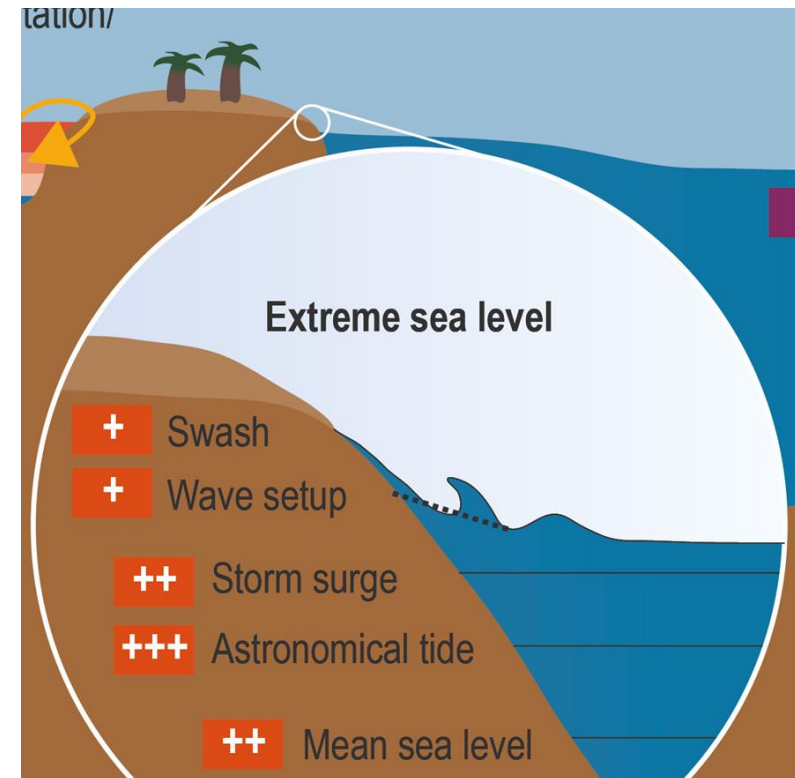
- Climate Risk Overview
- Nature-based Solutions for Coastal Protection
- Barriers for NBS & Coalition building



The climate is changing

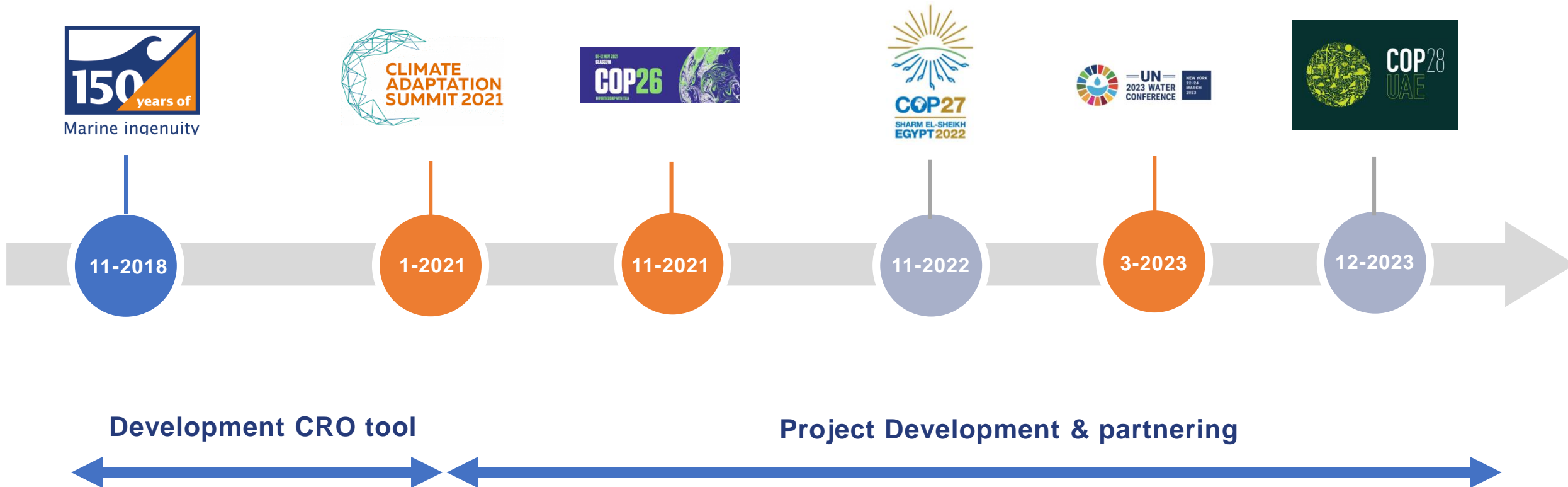


IPCC report scenario's



Sea level rise and more severe storm surges

At our 150 anniversary we decided to create a tool mapping the risk of all the coastlines in the world: The Climate Risk Overview (CRO)



Climate Adaptation Action Plan

1



Climate Risk Overview

2



Climate Adaptation Solutions

3



Climate Adaptation Action Coalitions



Climate Risk Overview

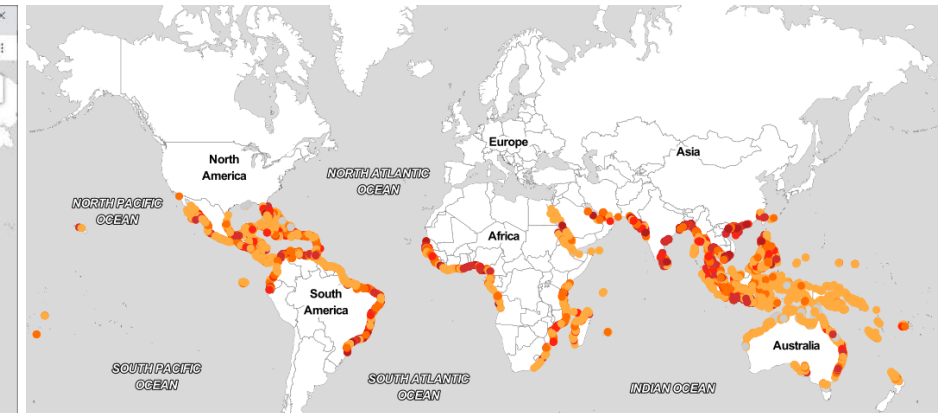
Powered by Van Oord

CRO identifies the risk of climate change at coastlines

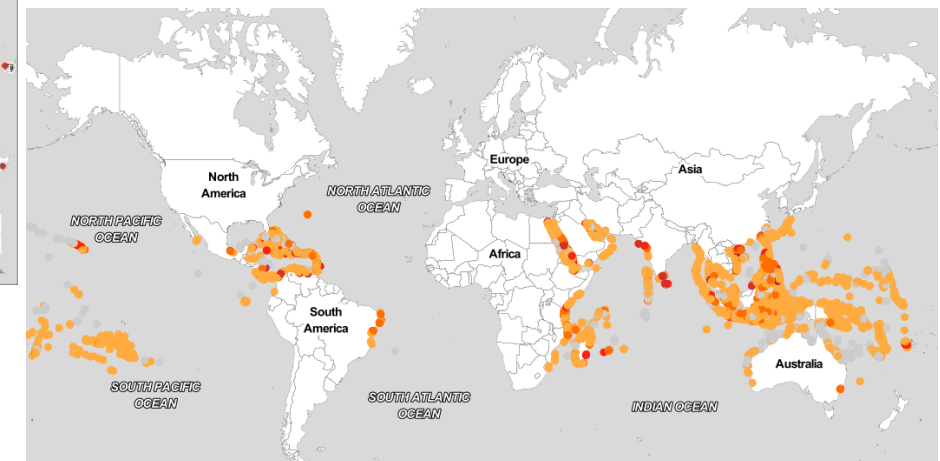
Locations exposed to Sea levels & Wave action



Mangrove locations



Coral locations





Senegal - Africa



2018 Execution: 2.5 years

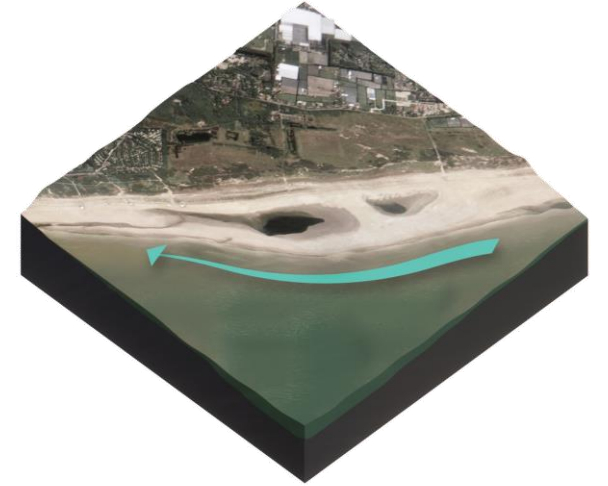
Coastline: **4 km**

World bank Financed

Benefits:

- Coastal protection
- Tourism / recreation / economy
- Safe Haven for fishery

Sand Engine NBS –east coast United Kingdom,



Building with Nature, 2020 ©
EcoShape & One Architecture

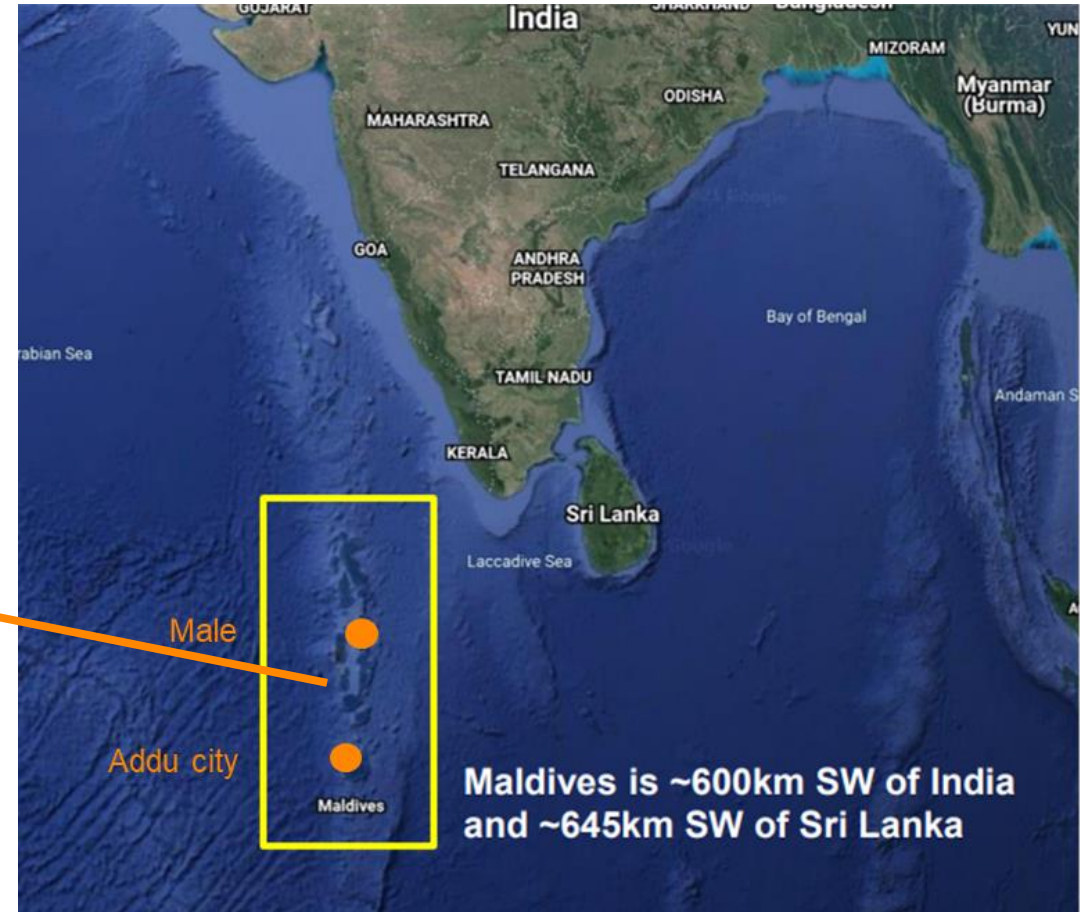
2019 Execution: <1 years
Coastline: **6 Km**
50% Private Funding (PPP)

Benefits:

- Coastal protection
- Nature & Recreation



Working in a sensitive areas with various Stakeholders



UN forecast	2020	2050
Capital Inhabitants	230K	475K

Addu City – Maldives Reclamation – revetment – beach - geotubes





Addu City – Maldives Seagrass relocation





Climate Adaptation Action Alliance



Knowledge Development



Local Authorities and Communities



Collaboration on all levels from financing to project implementation



How to fund Coastal resilience projects?

- No direct income from coastal protection
- Limited insurance cover behind coastline
- Disasters generate international aid / funds
- Short term priorities urgency National Budget



Obstacles to implement NBS?

- Design codes country specific does not contain NBS
- Procurement focus lowest price
- Concepts & Designs without contractor limits NBS options



COP27
SHARM EL-SHEIKH
EGYPT 2022



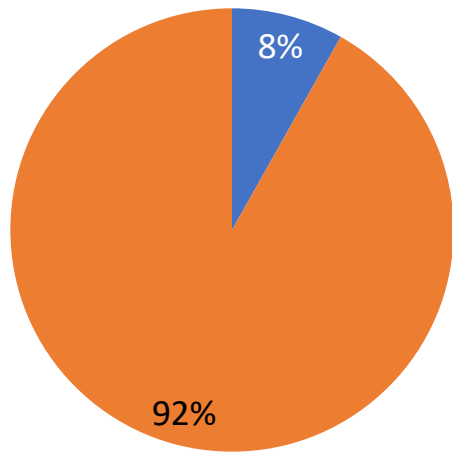
UN ambition (Paris agreement) 100 Billion USD Climate finance is not being realized, only limited investments in Coastal protection and rivers

2021



Climate Finance

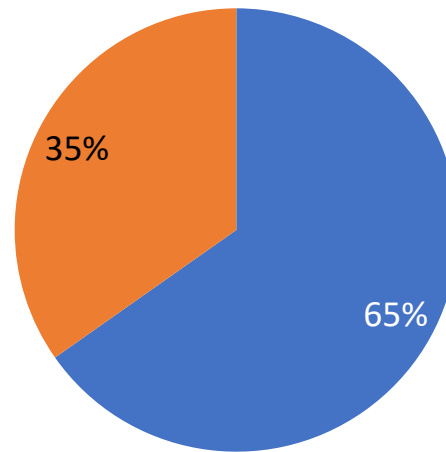
■ Grant
■ Loans etc



50B USD
(8% Grant)

Adaptation – Mitigation

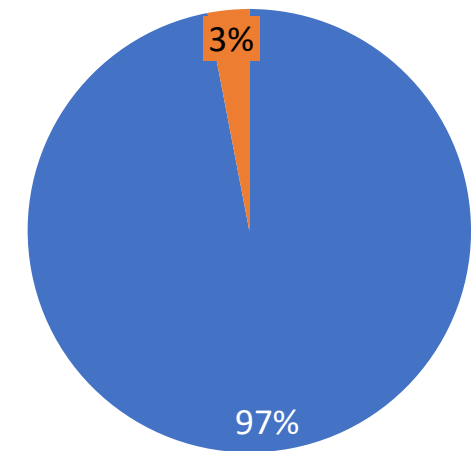
■ Mitigation
■ Adaptation



17B USD
(35% for adaptation)

Percentage Coastal / River

■ On land Adaptation
■ Coastal and river infrastructure



500M USD
(3% of adaptation)



S.E.A.

Sustainable Earth Actions



Questions?