

Accelerating climate change adaptation for disaster risk reduction and resilience in Asia and the Pacific

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Tokyo, Japan

53

MEMBER
STATES

9

ASSOCIATE
MEMBERS

40%

WORLD
LAND AREA

60%

WORLD
POPULATION

ESCAP at a Glance

One of the five regional commissions of the United Nations



Core Functions

Research & Analysis

On critical and emerging issues

Intergovernmental Consensus-building and Norm-setting

For regional cooperation on economic, social and environmental issues

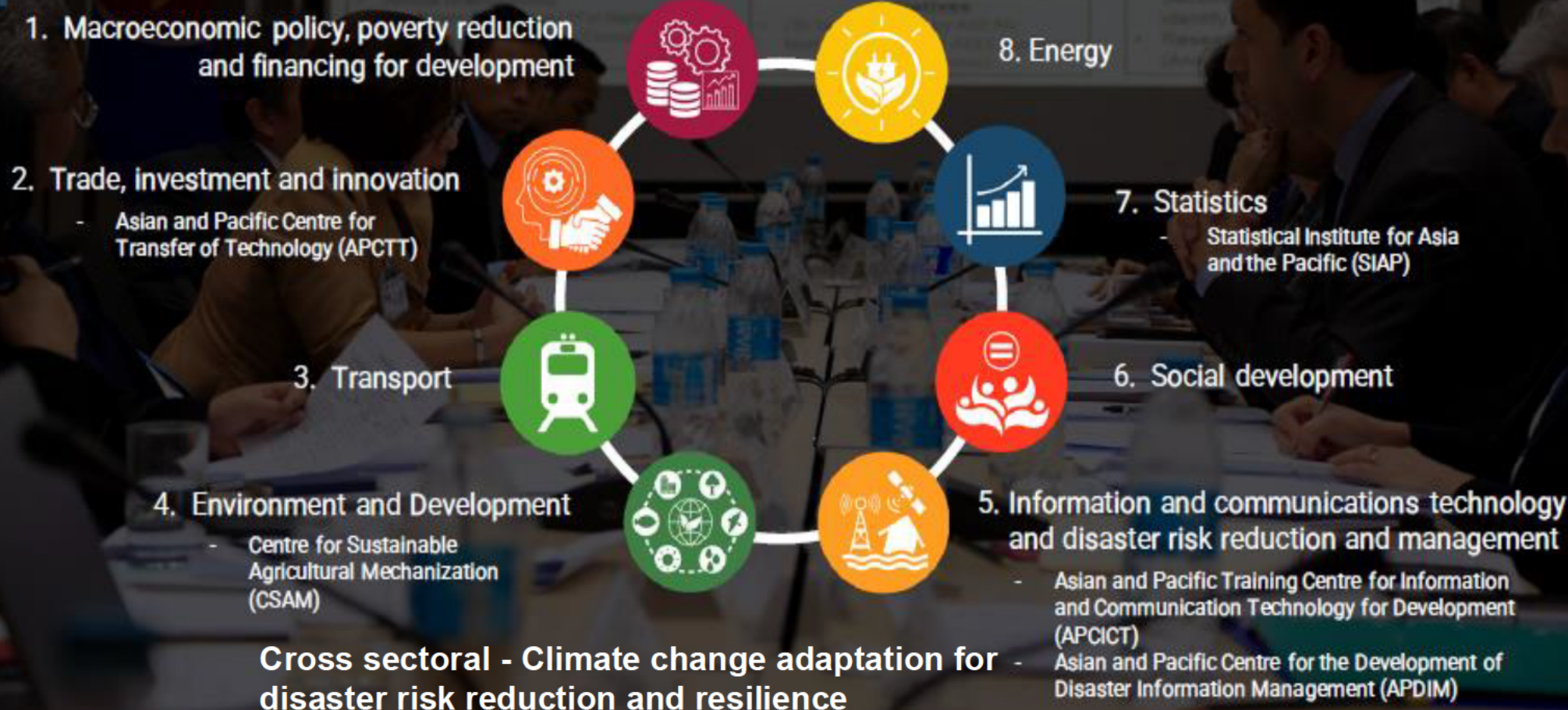
Capacity Development

To develop the technical, managerial and institutional capacities of member States based on identified needs



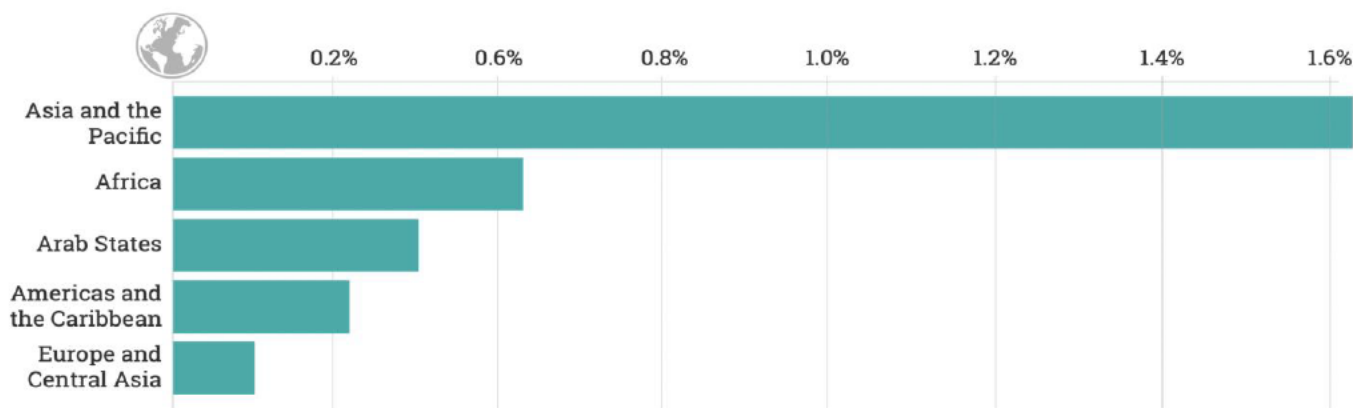
Our Thematic Work

8 sectors with 5 regional institutions



Why climate adaptation for DRR is so critical in Asia - Pacific?

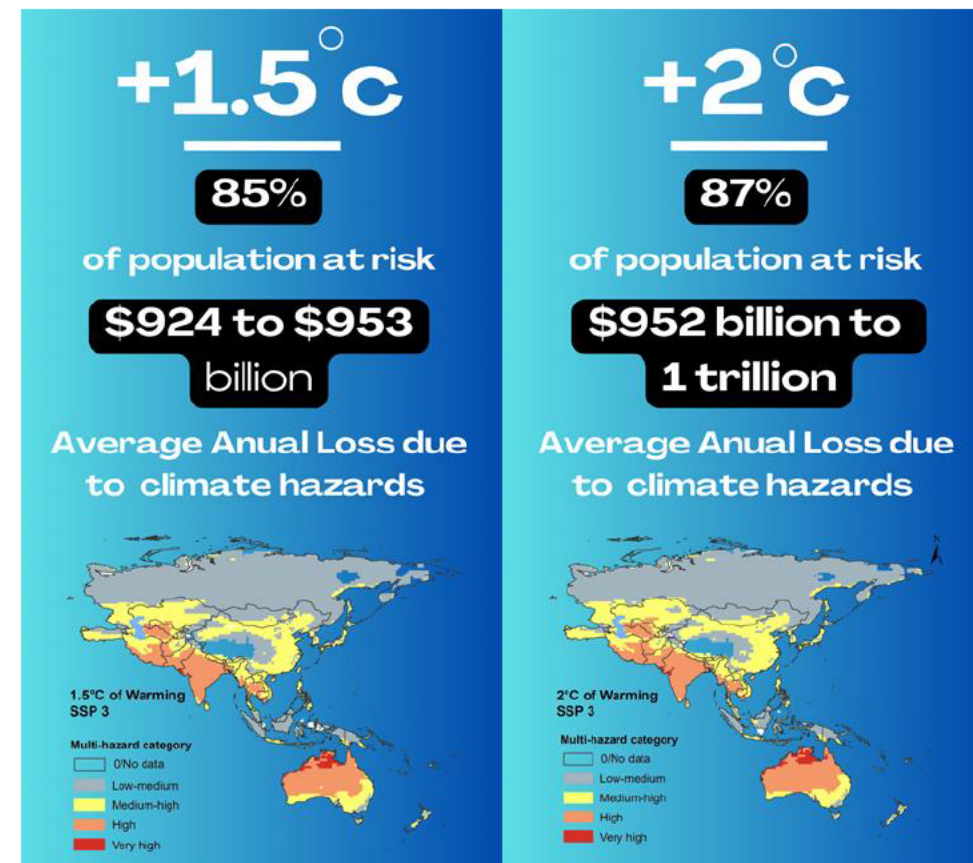
- Asia-Pacific remains the most disaster impacted region. Since 1970, two million people have lost their lives, equivalent to 105 lives being lost to disasters every day.
- The LDCs/SIDS accounts for mortality five times as compared to the rest of the Asia-Pacific
- The cost of inaction is on the rise, regression on SDG 13, Sendai targets off the tracks



The highest share of economic loss by region is borne within Asia-Pacific, where countries **lose on average 1.6% of GDP** to disasters

Source: GAR 2021

**A Riskscape@1.5 and 2.0 warming:
Intensifying and emerging hotspots**



Emerging and intensifying risk hotspots: Population exposed under 1.5 °C and 2 °C warming scenarios compared to baseline

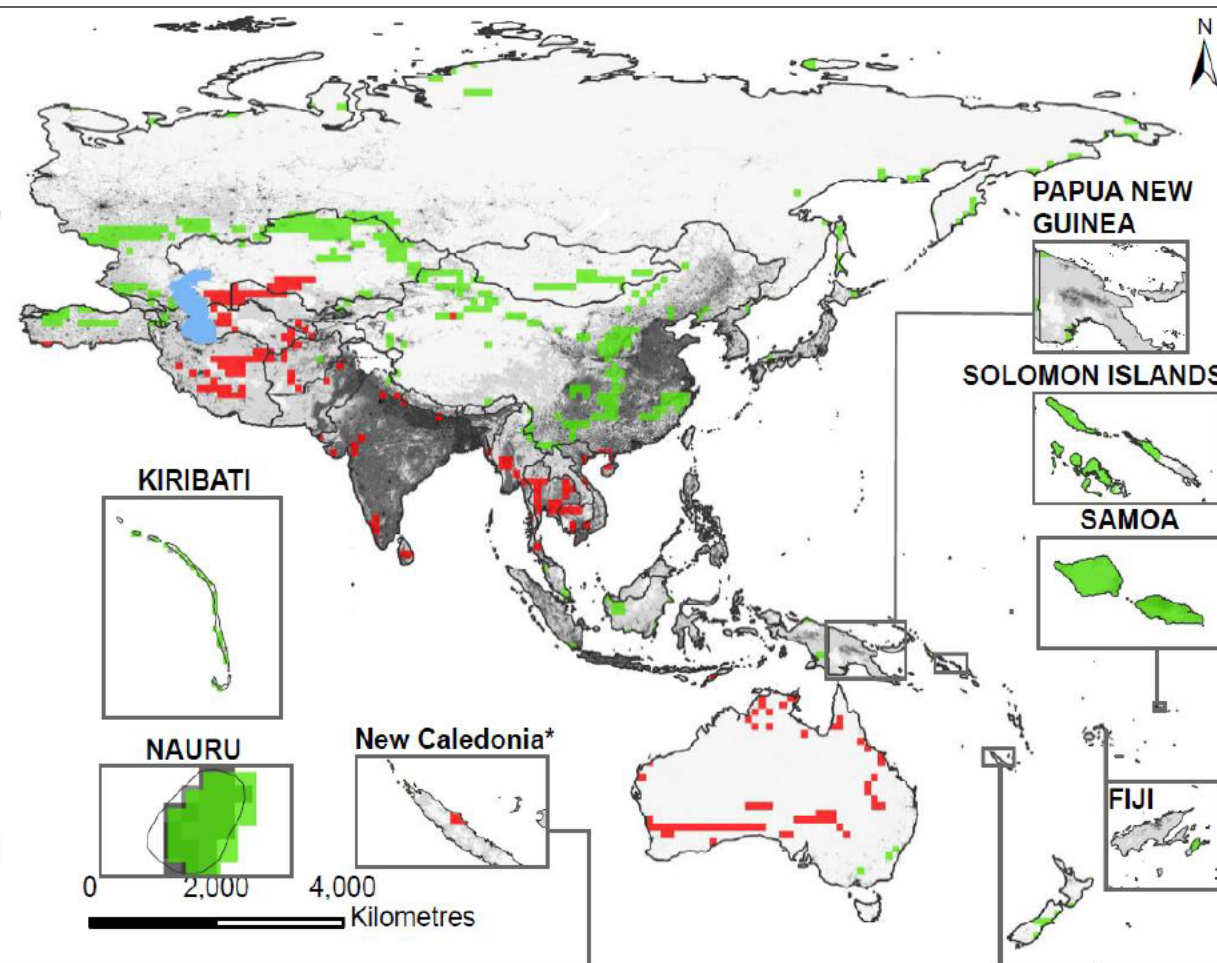
2°C of Warming
SSP 3

Areas with increasing
multi-hazard risk
compared to baseline

- Intensifying
- Emerging

Actual population

- 0/No data
- 1 - 20
- 21 - 50
- 51 - 100
- 101 - 500
- 501 - 2,000
- 2,001 - 1,325,545



Seizing the Moment

TARGETING TRANSFORMATIVE
DISASTER RISK RESILIENCE

Asia-Pacific Disaster Report 2023

What to do to protect at risk - people, sectors and systems

#1. Protect people at risk in multi-hazard risk hotspots, Focus on most vulnerable in intensifying and emerging risk hotspots

#4 Nature-based solutions (NbS) to sustainably manage, protect and restore the degraded environment and reduce disaster risk.



#2. Economic case of EW4ALL: 10-fold returns on investments, triples the benefits in vulnerable context

#3. Sector specific early warnings-Key to safeguard, Resilient infrastructure

Shifting policy paradigms



TRANSITIONING FROM
SECTORAL TO NEXUS THINKING



ROBUSTIFYING CLIMATE CHANGE
ADAPTATION STRATEGIES



TRANSLATING KNOWLEDGE
INTO ACTION

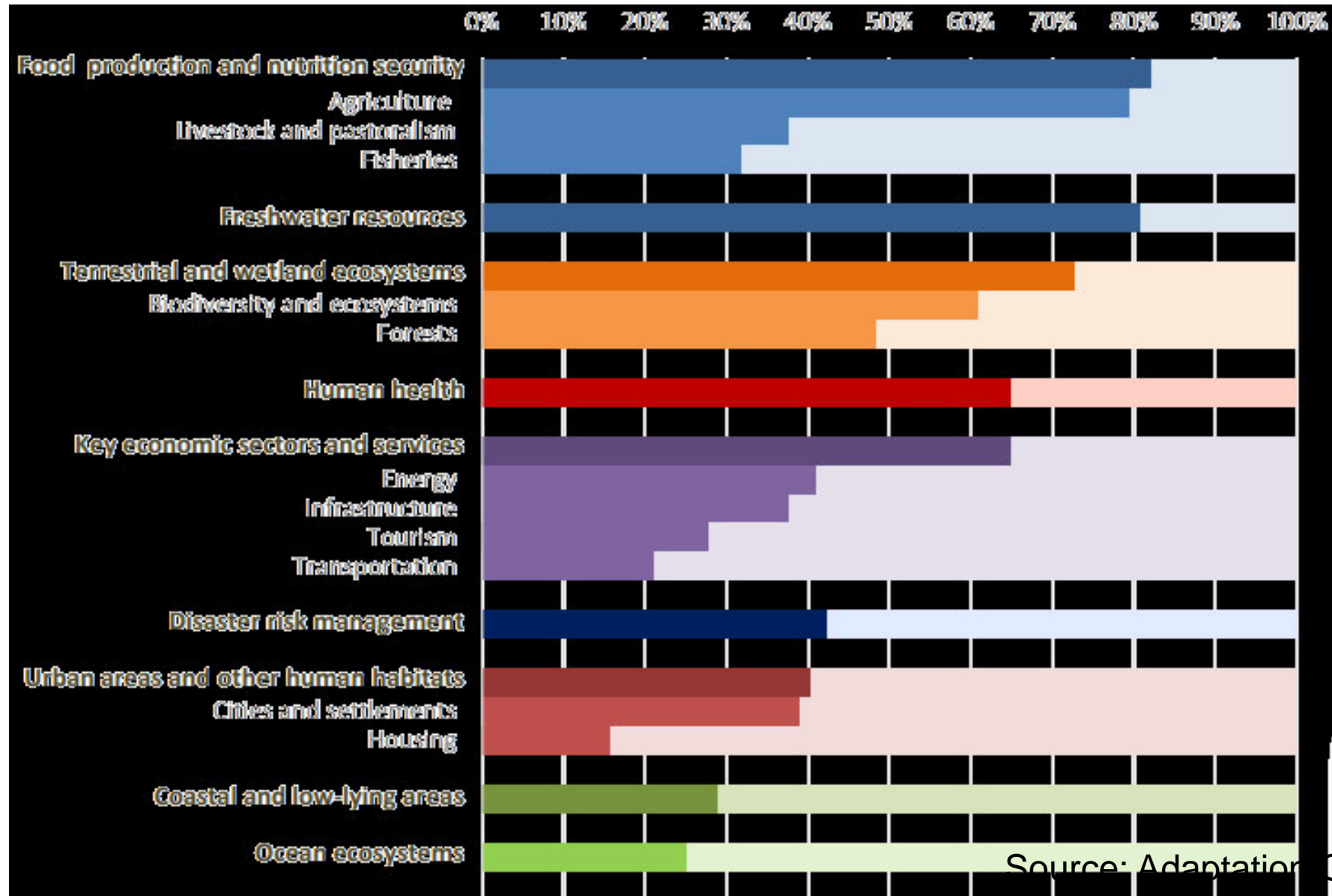
Source: Prof Babel, AIT

Ideas on framework of transformative adaptation key components and operationalization

Transitioning from Sectoral to Nexus thinking

Adaptation Priorities of 191 Parties to Paris Agreement, COP26 2021

Share of adaptation components of nationally determined contributions referring to specific adaptation priority themes linked to the SDGs



Source: Adaptation Gap Report 2021

Key policy action: Comprehensive risk management framework

Access to risk information: past and future, scientific projections and trends, weather and climate data, disaster loss database

EWS, DRR Strategies, National Adaptation Plans; Nature-based Solutions, Development Plans; National and Sub-national, Sectoral

Whole of society – all ages, different sectors/specializations – National Disaster Management Organizations



A portal that assesses risks and their potential impacts



RISK AND RESILIENCE PORTAL
An Initiative of the Asia-Pacific Disaster Resilience Network

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Asia-Pacific Risk & Resilience Portal 2.0

Bridging the science policy gap for informed action

🔗 [Data Explorer](#)

700+
Datasets

100+
Policy documents


and the 100th anniversary of the 100th anniversary of the




We have a large number of children throughout the region who are the
children and adults who are the children's children.

Harnessing the synergy of platforms

Towards innovative solutions
for adaptation and resilience



01
Risk and Impacts

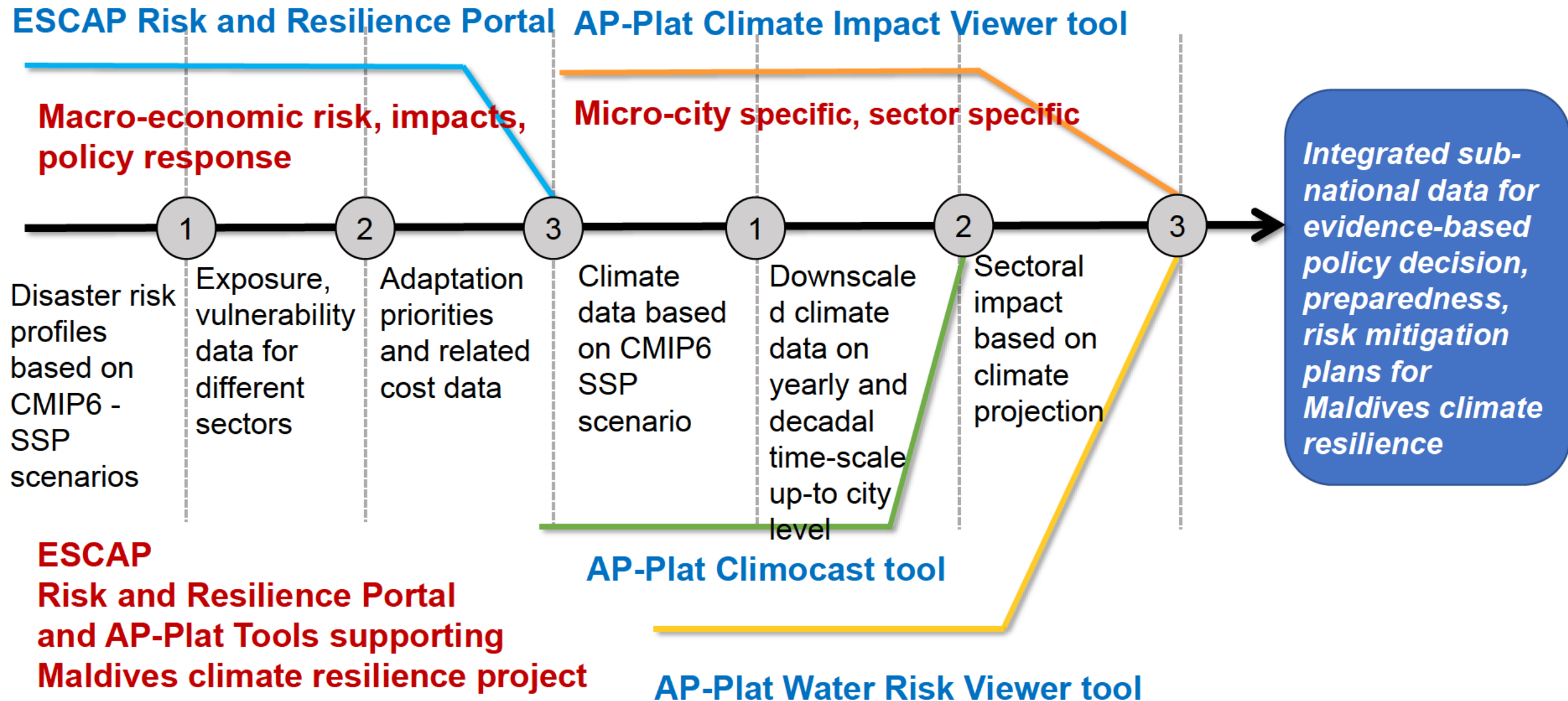


02
Risk visualization with
granularities



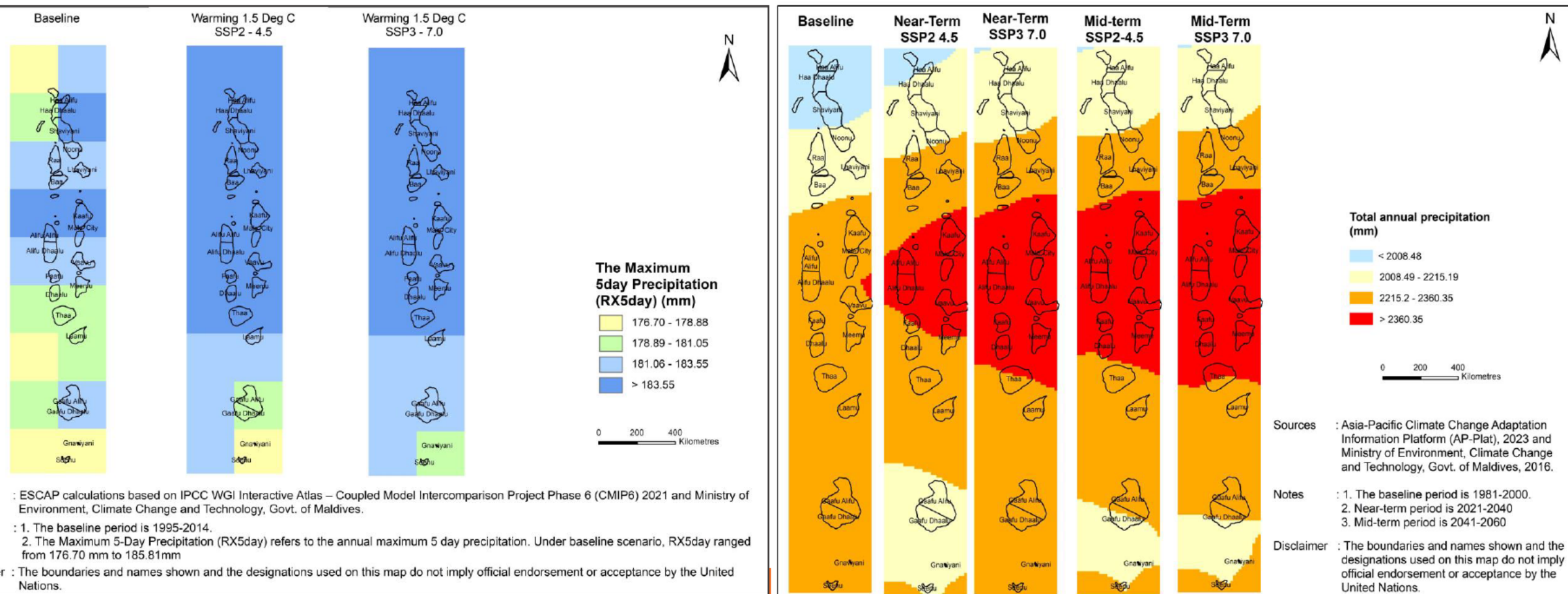
03
Adaptation pathways
NAP/VNR/CCA for
disaster risk reduction

UN Joint SDG Funded Project (2022), Maldives



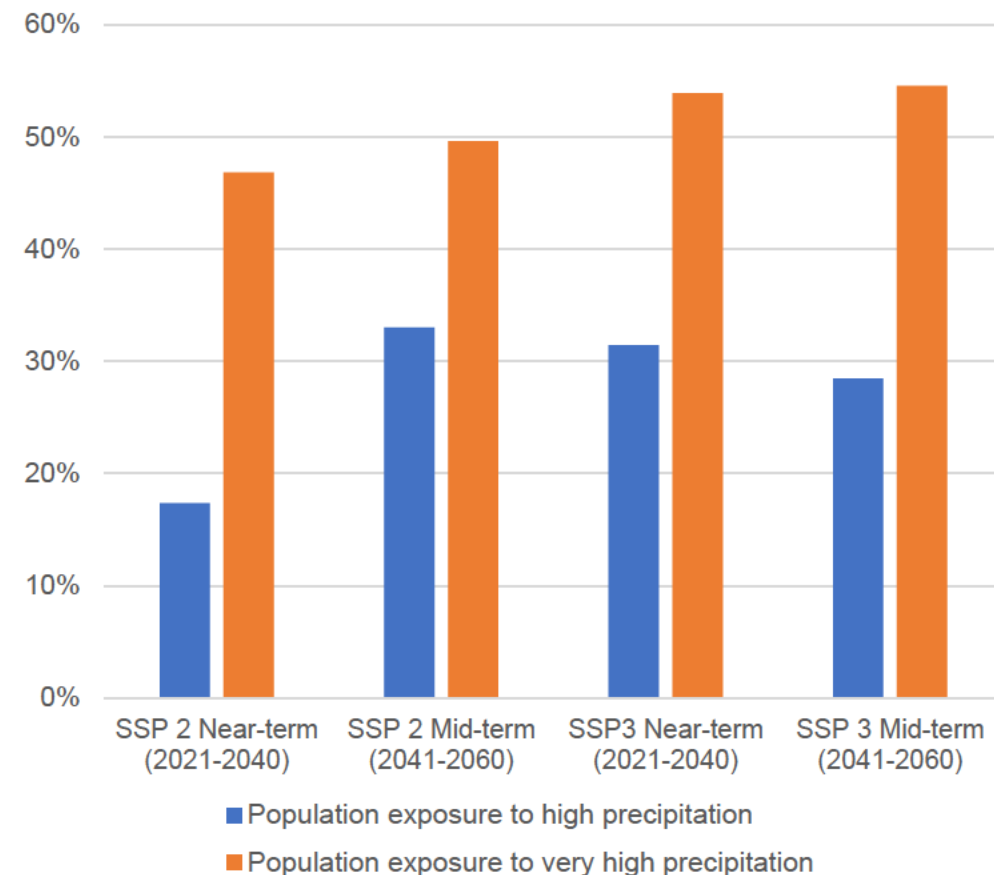
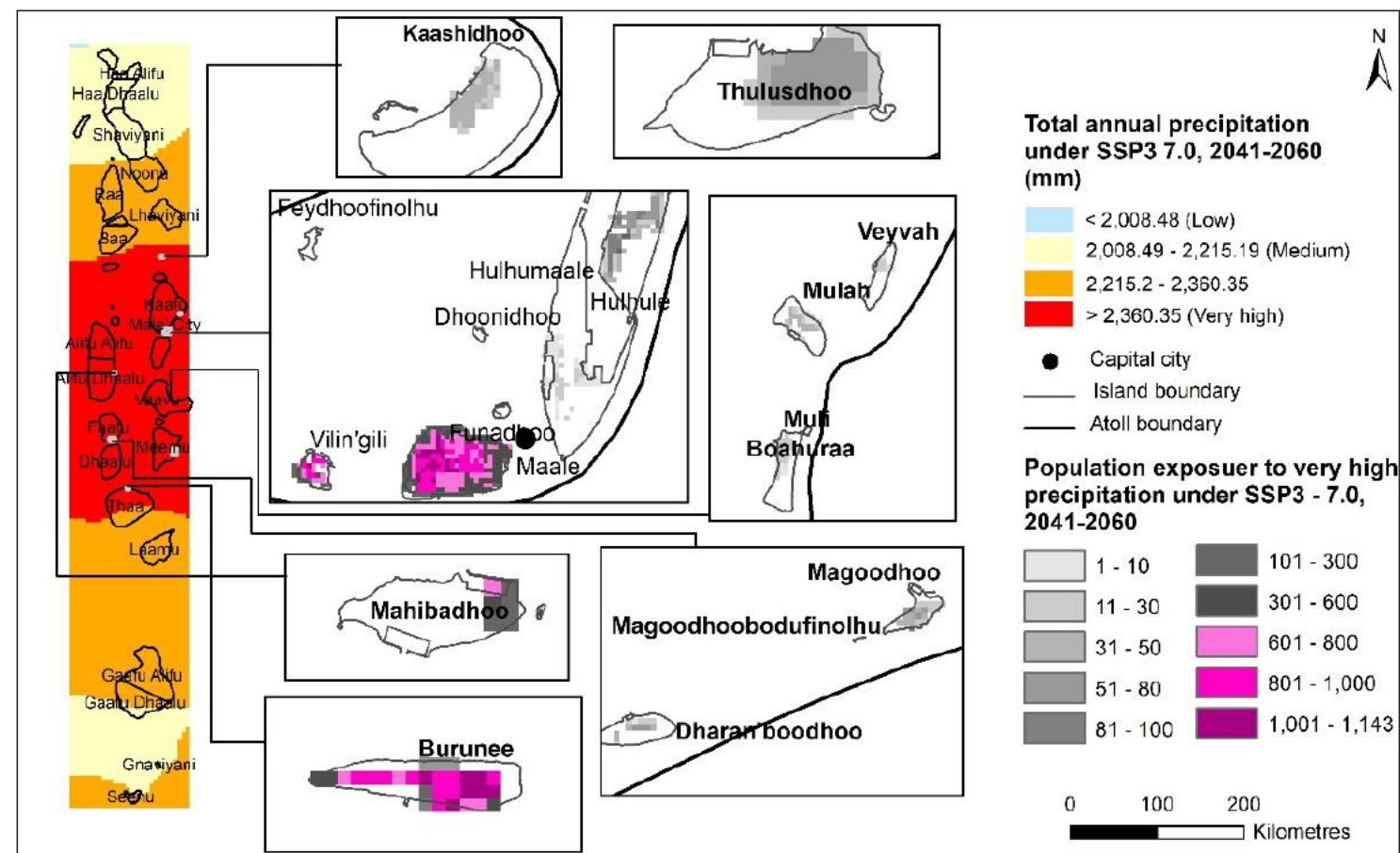
Customizing portal in partnership with AP-PLAT- Maldives

Downscaled climate projection data with a 5 km spatial resolution received from AP-Plat enabled a more granular analysis of risk hotspots (right) than the usual 100km spatial resolution (left)

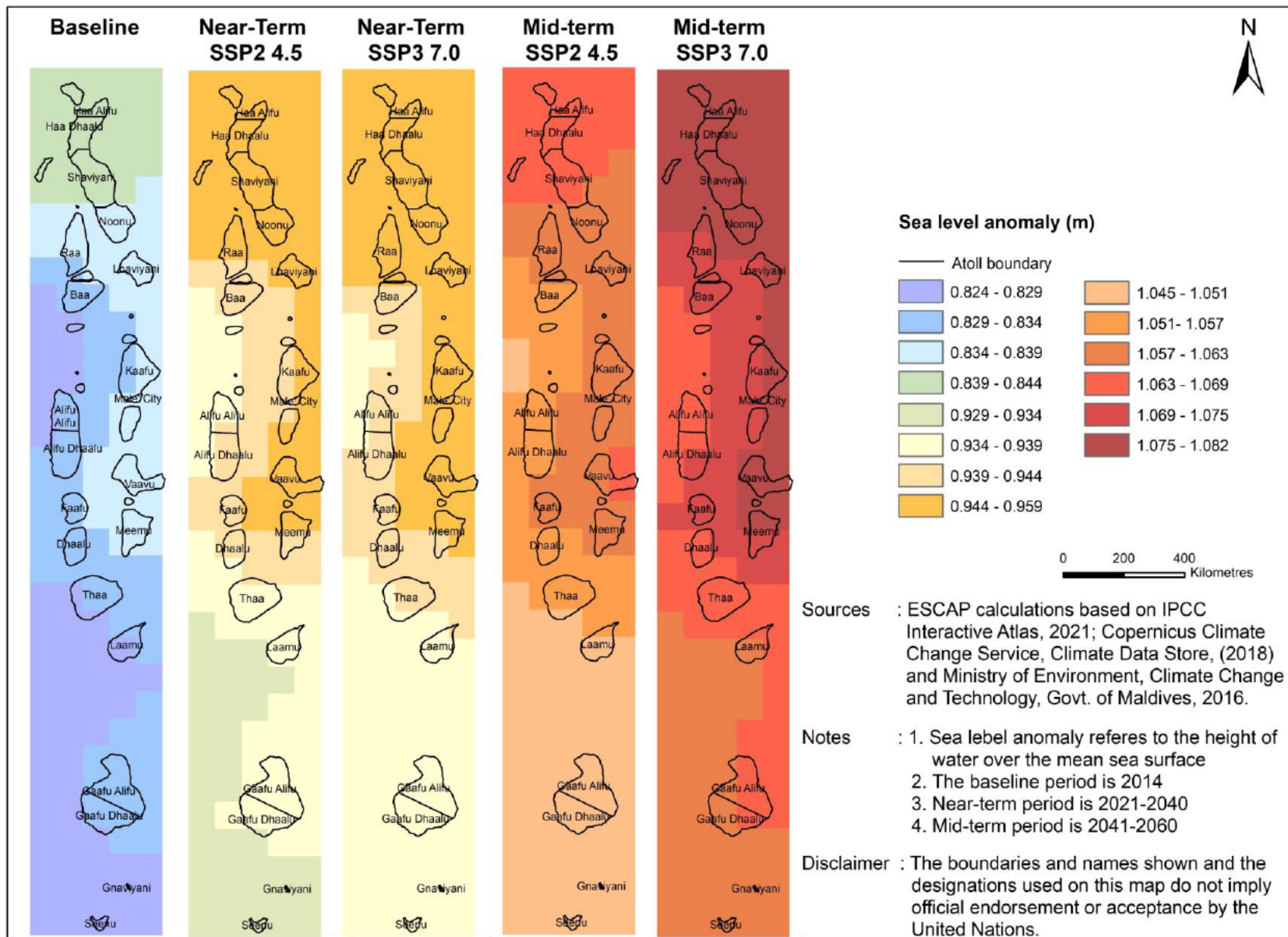


Risk analysis: Exposure – Total Annual Precipitation

Total Population

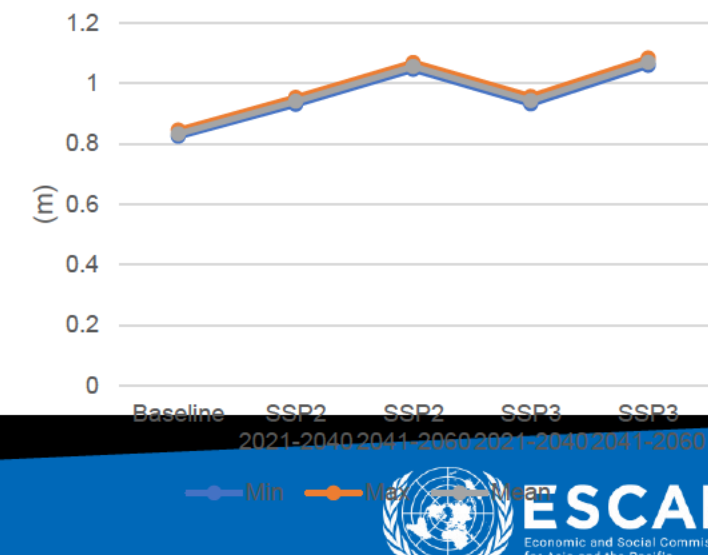


Risk analysis: Hazard - Sea Level Rise

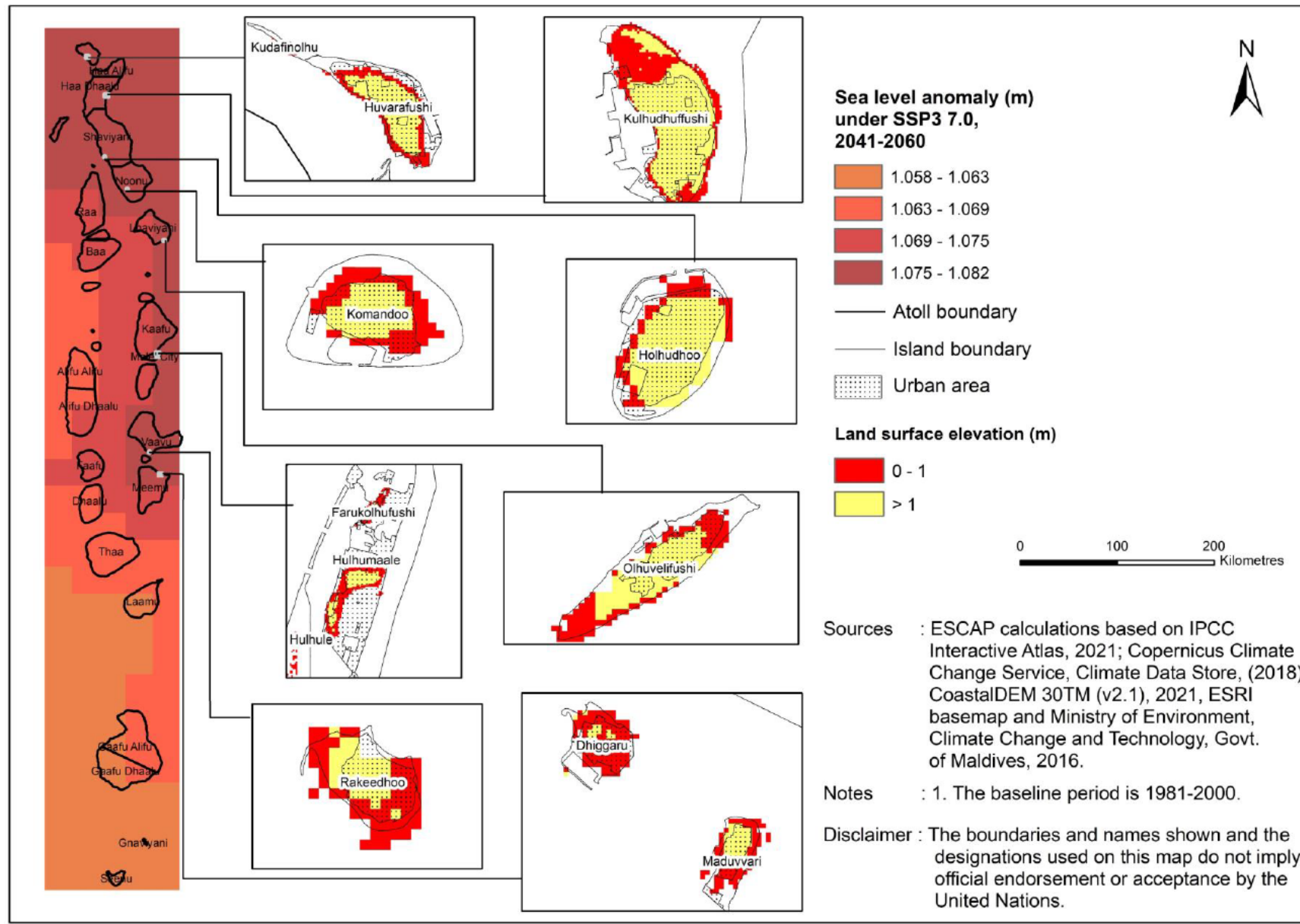


The is high around the northern and eastern part of the central atolls and relatively low towns the southern atolls. the northern atolls such as Haa Alifu, Haa Dhaalu, Shaviyani, Noonu, Lhaviyani, Kaafu, Vaavu and Meemu atoll are most likely to be impacted more by sea level anomaly under future climate scenario.

Sea level anomaly (m)



Risk analysis: Exposure - Sea Level Rise

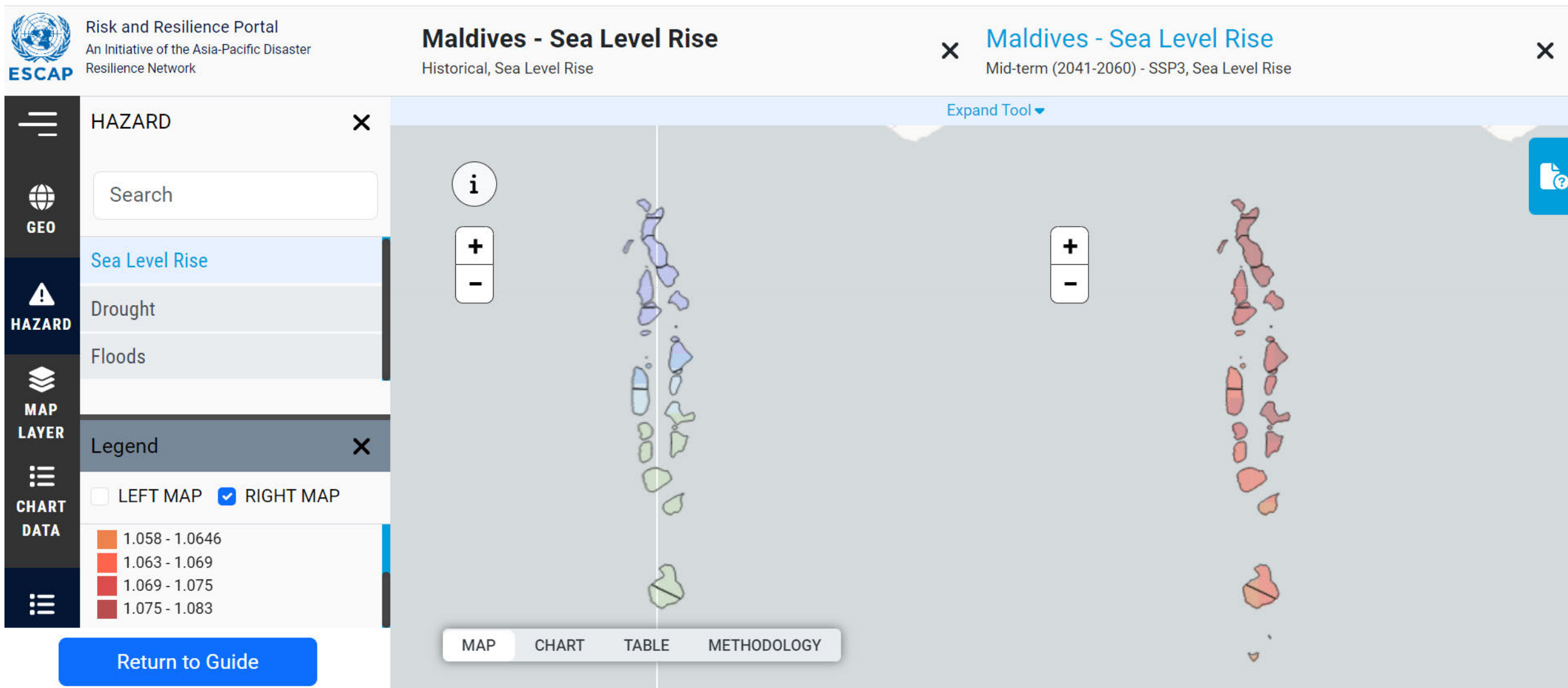


- Maldives has lowest terrain in the world with more than 80% of its islands are less than 1 m above the mean seam level. Given the global sea level rising 3 to 4 millimeters per year, 31-50% of population are likely to be exposed to seal level rise and related events such as coastal storm surges and coastal inundation more frequently by 2100 under business-as-usual scenario (SSP2).

- Around 14% of the urban area with 0-1m elevation are under risk of 1 m increase in sea level under future climate scenario.**

RISK AND RESILIENCE PORTAL – For Maldives

An Initiative of the Asia Pacific Disaster Resilience Network



RISK AND RESILIENCE PORTAL

An Initiative of the Asia Pacific Disaster Resilience Network



Risk and Resilience Portal
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Resilience Network

Maldives - Sea Level Rise

Mid-term (2041-2060) - SSP3, Sea Level Rise

Compare

GEO

HAZARD

MAP
LAYER

CHART
DATA

HAZARD

Sea Level Rise

Drought

Floods

Legend

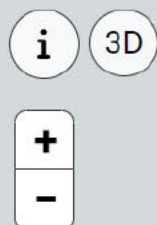
Sea Level Rise (Units: m)

Opacity

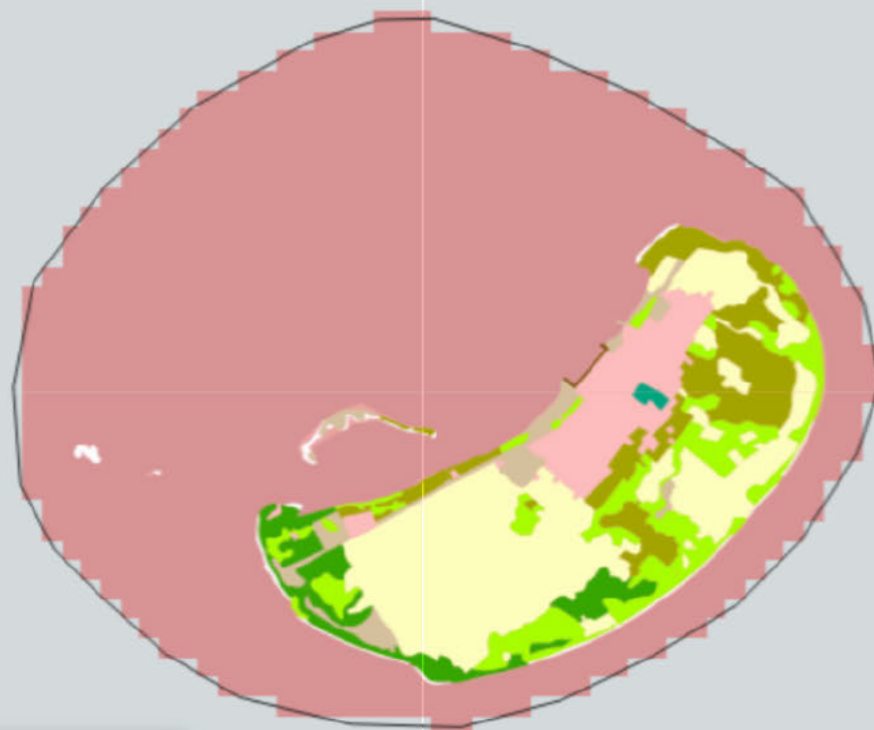
1.058 - 1.0646

1.063 - 1.069

1.069 - 1.075



Expand Tool ▼



MAP CHART TABLE METHODOLOGY

Legend

Opacity

Agricultural area

Airport

Barren, sparsely vegetated area

Beaches and sand

Forest

Return to Guide

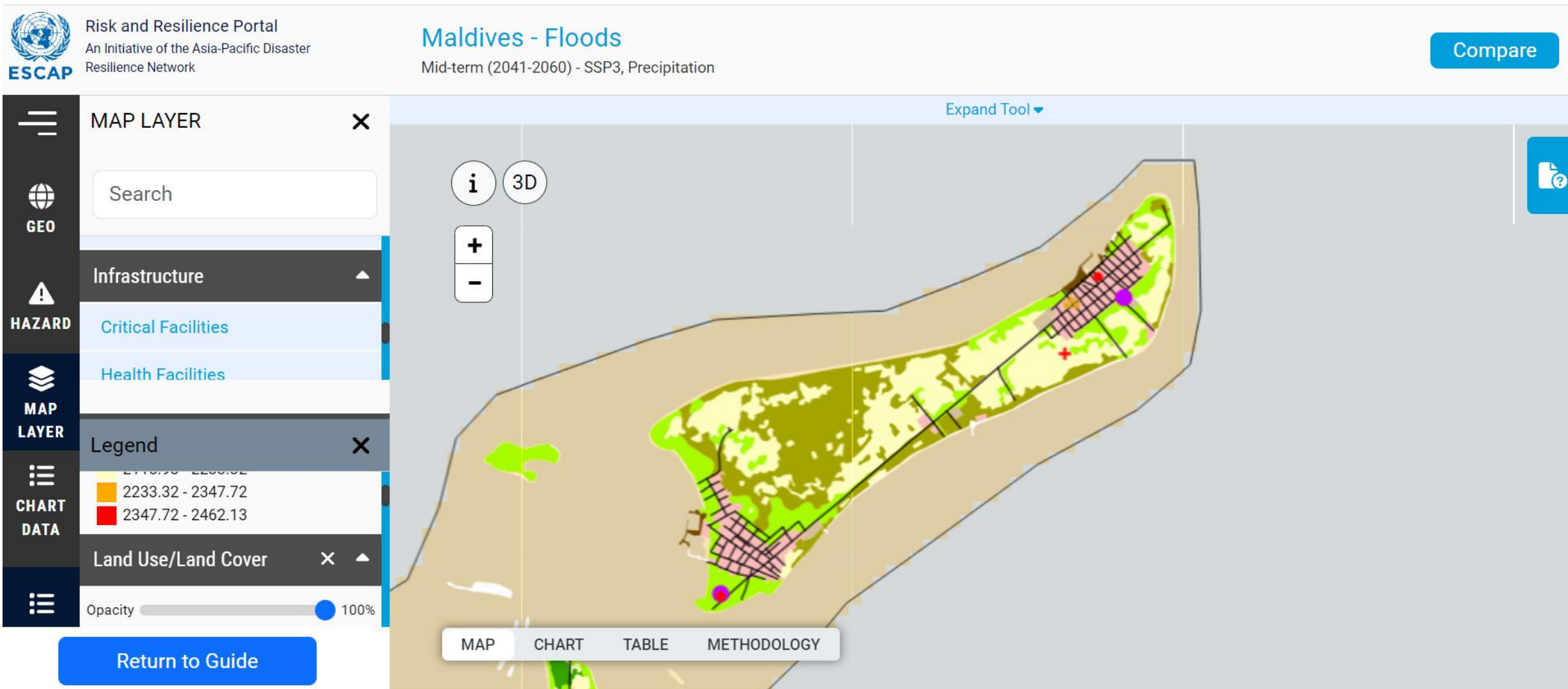
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Customizing portal - Maldives

 **AP-PLAT**
Asia-Pacific Climate Change Adaptation Information Platform


NEWS GET STARTED DATA&TOOLS LITERAC

HOME > Adaptation Database

ADAPTATION DATABASE - LIST VIEW

Are you looking for information on adaptation practices in a specific geographical region or in a certain sector? You can browse this collection of case studies and country-specific adaptation planning profiles from all over the world.


106 RESULTS



Climate Risk Projections Using AP-PLAT Data in the Maldives

Case Study


Asia



Climate Exposure Analysis Using AP-PLAT Data in the Maldives

Case Study

Asia



Center for Climate Change Adaptation (CCCA)

Organization/Network

Asia

<https://ap-plat-ccca.nies.go.jp/adaptation-database/list/>

Moving forward..

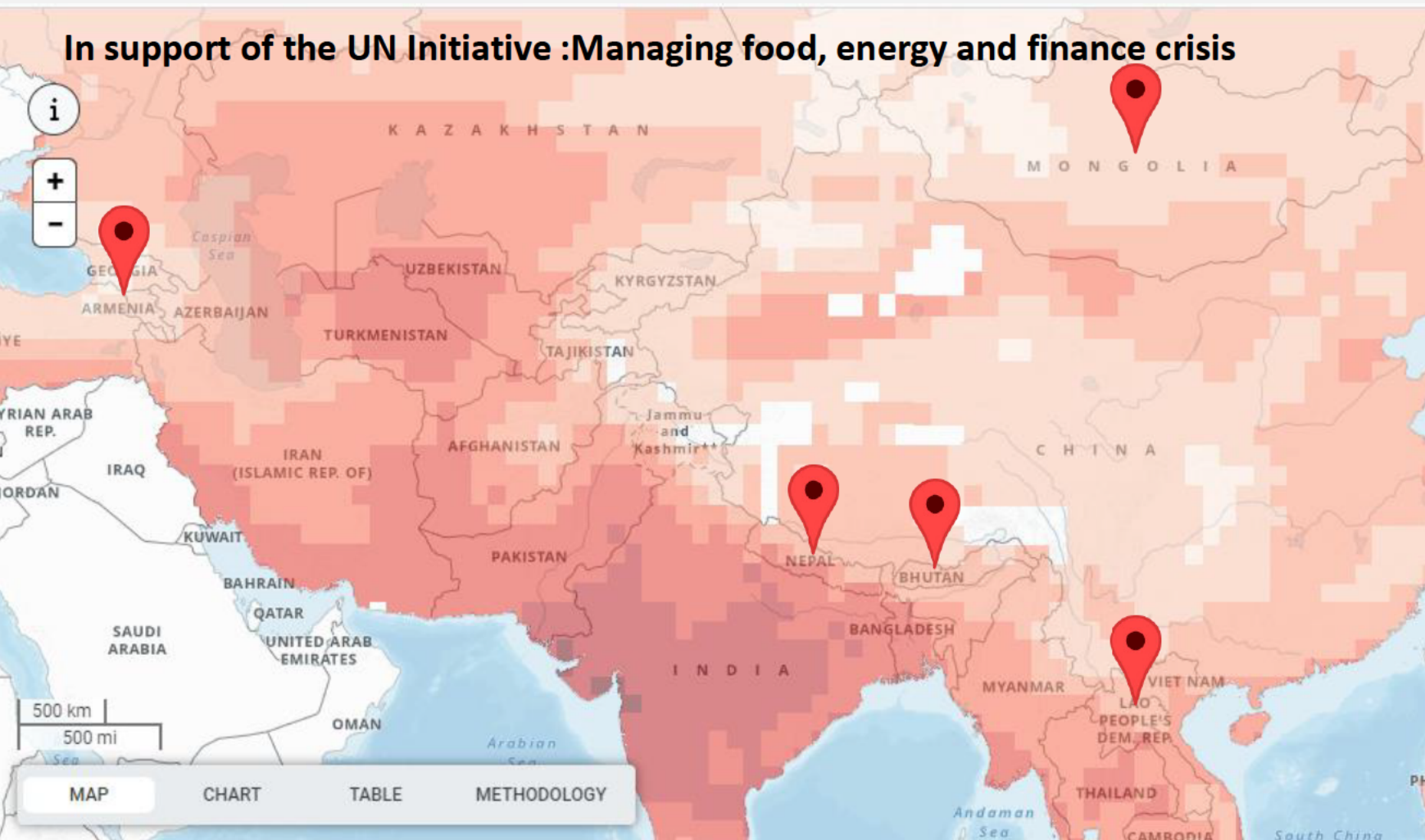
Step I.

- Capacity development for the Web-based Decision Support System for Disaster Risk and Resilience for Maldives through ESCAP Risk and Resilience Portal and AP-PLAT products/services (January 2024)
- High level discussion on integration of the tools and data into Maldives' disaster management **policies and action plans as well NAP process**



Step II: Scaling up transformative adaptation with nexus approach

Proposed collaborations with AP-PLAT



- Combine AP-Plat's downscaled climate projection data with agrifood and energy sector exposure information to assess climate impacts in respective sectors
- Target countries are **Armenia, Bhutan, Lao PDR, Mongolia and Nepal** considering the unique challenges they face from climate change in agrifood and energy sectors

Step III. Scaling up transformative adaptation through UN Early Warnings for All

Propose AP-PLAT to support – ESCAP's Regional Strategy on Early Warnings for All



First pillar – Knowledge of risk



Downscaled climate scenarios – for example Maldives



Sector specific climate risk information



Promoting nexus and systemic approaches – food, water and energy systems

11 Roll out countries in Asia and the Pacific – Bangladesh, Cambodia, Fiji, Kiribati, Lao PDR, Maldives, Nepal, Samoa, Solomon Island, Tonga, and Tajikistan

THANK YOU



<https://rrp.unescap.org/>