

# 1<sup>ST</sup> GENERAL NCRC MEETING

JUNE 28, 2024



Ministry of Transport, Integrity,  
Nature and Senior Affairs



# MEETING AGENDA

JUNE 28, 2024



Ministry of Transport, Integrity,  
Nature and Senior Affairs



## SECTION 1: 1<sup>st</sup> General Meeting of the NCRC (Executive Level)

9.30am - 9.45am

### **Aruba's Climate Strategy & Roadmap**

by Minister Ursell Arends

9.45am - 10.30am

### **Charting Climate Resilience Pathways**

by Dr. Ryan Peterson, NCRC Chair

## COFFEE BREAK

## SECTION 2: CORVI Aruba (including CORVI Aruba Partners)

11.00am - 11.05am

### **Welcome CORVI Partners**

by Minister Ursell Arends

11.05am - 11.25am

### **CORVI Aruba, Stimson Center**

by Sally Yozell & Tracy Rouleau

11.25am - 11.55am

### **Open discussion / Q&A**

11.55am - 12.00pm

### **Concluding Words**

by Minister Ursell Arends

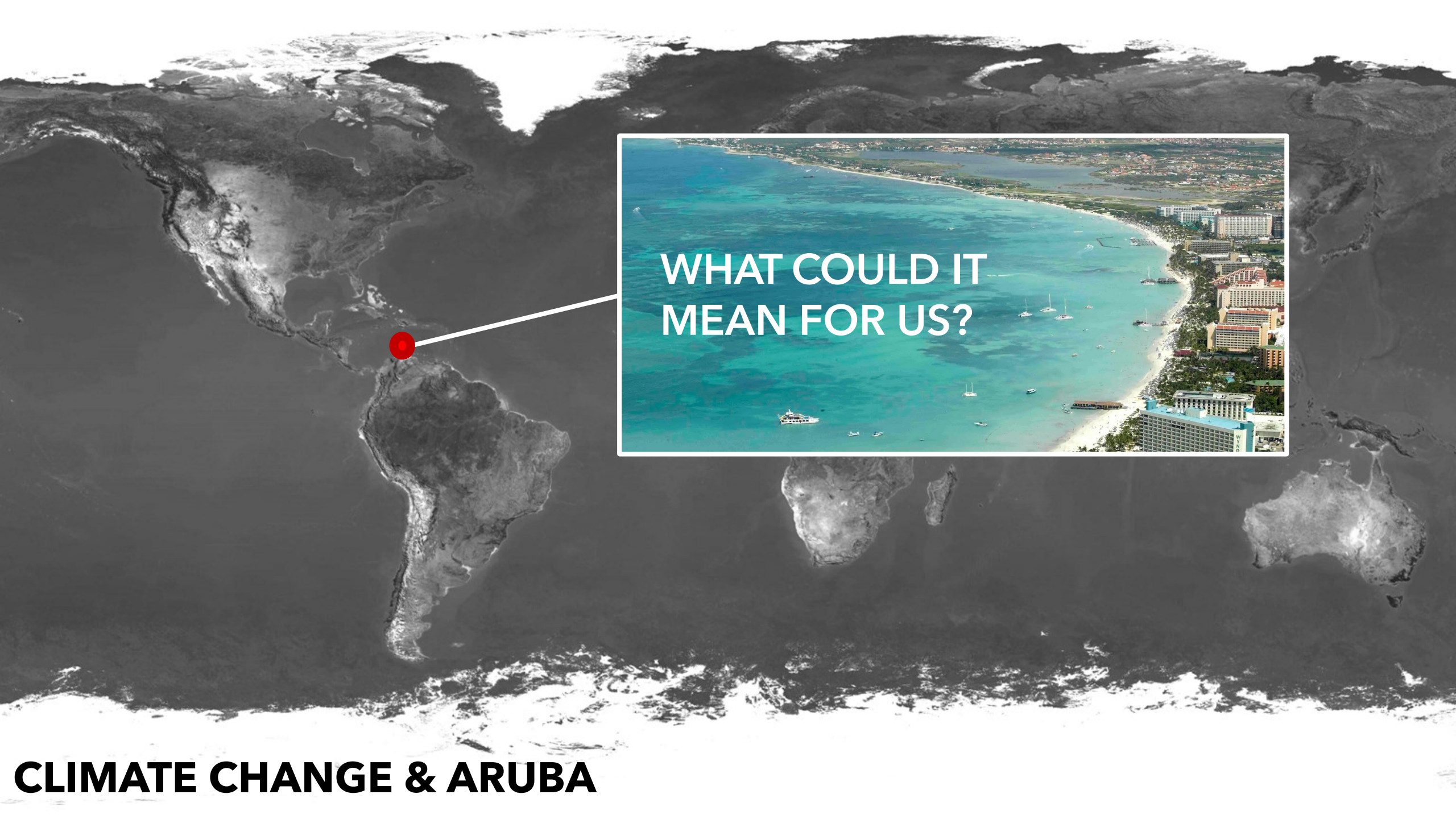
# ARUBA'S CLIMATE STRATEGY & ROADMAP

2022-2030



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WHAT COULD IT  
MEAN FOR US?

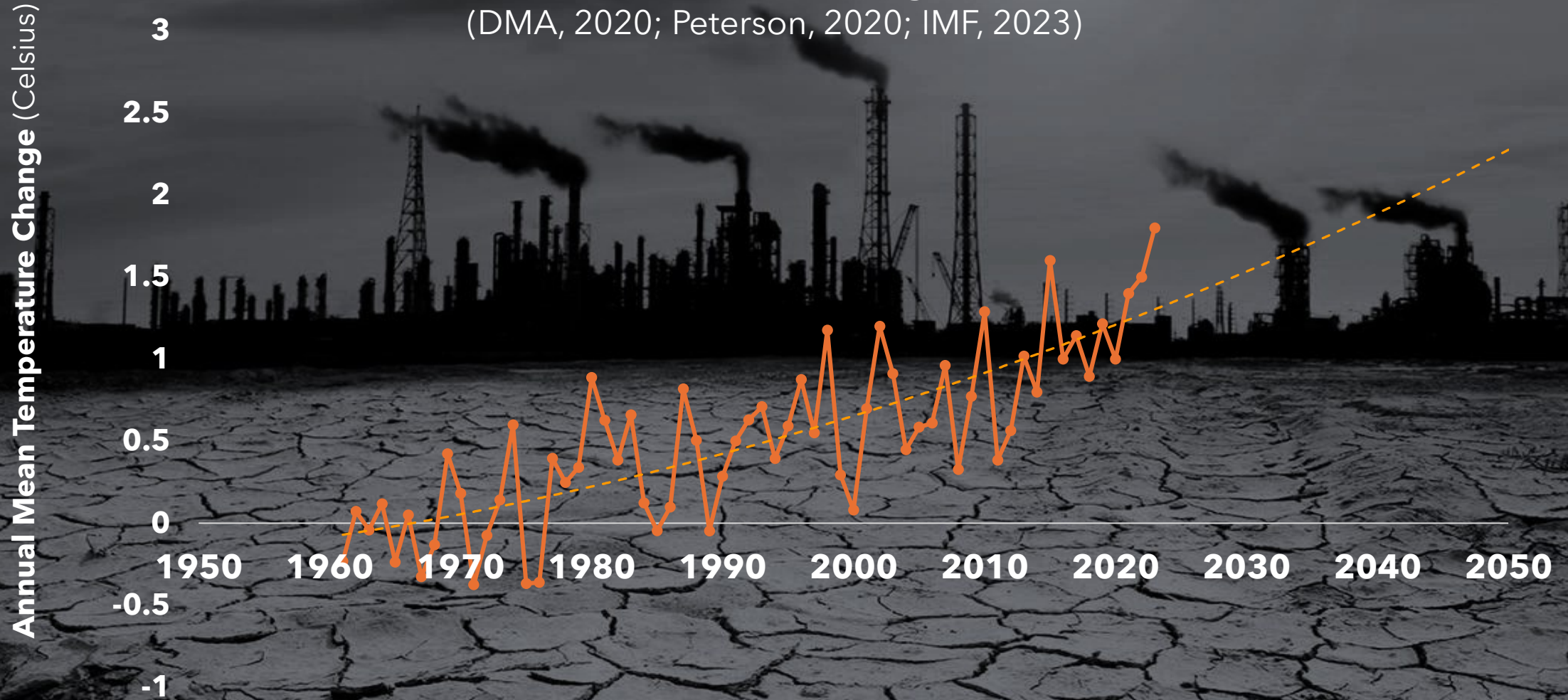
# CLIMATE CHANGE & ARUBA

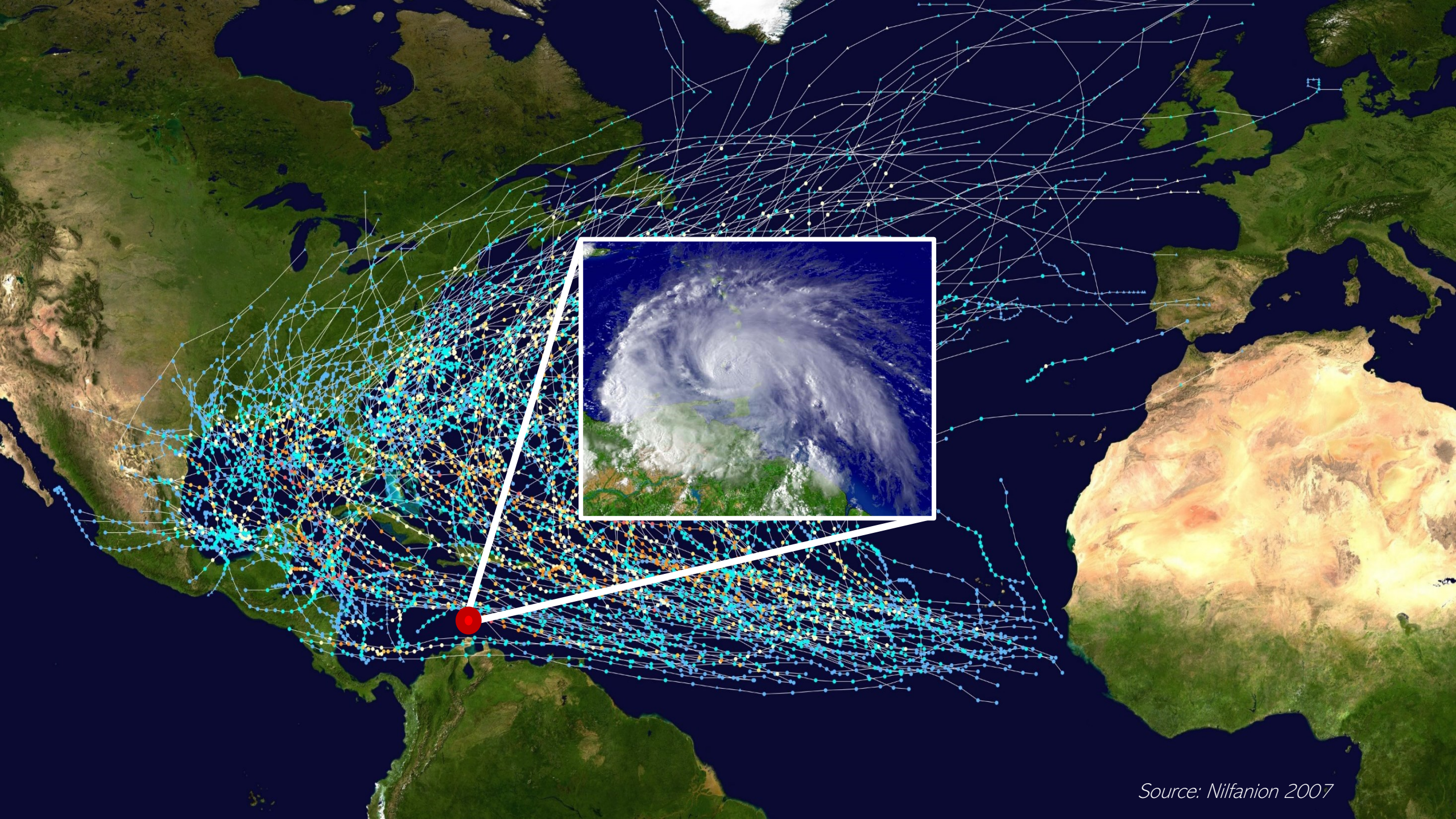
**HERE'S WHAT WE KNOW SO FAR...**



# Temperature rise in Aruba - Past Trends & Projections

(DMA, 2020; Peterson, 2020; IMF, 2023)



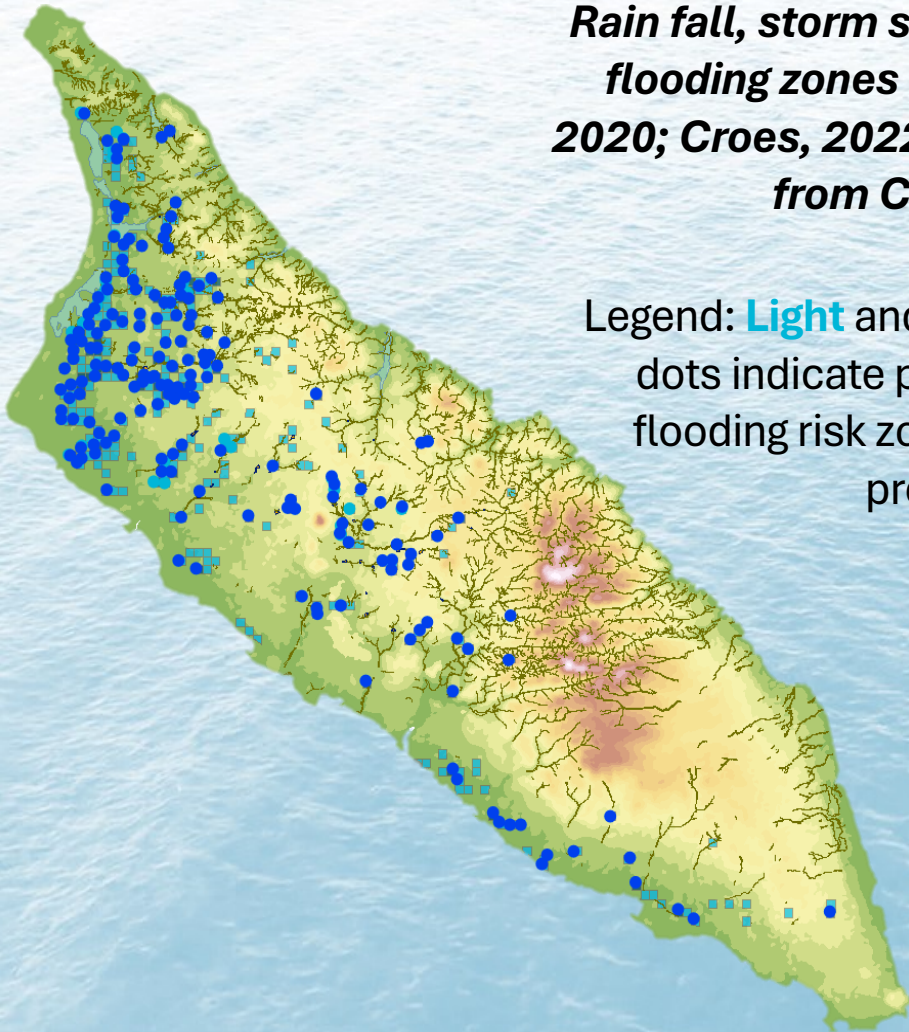


Source: Nilfanion 2007

# The direct and indirect impacts of climate change for Aruba

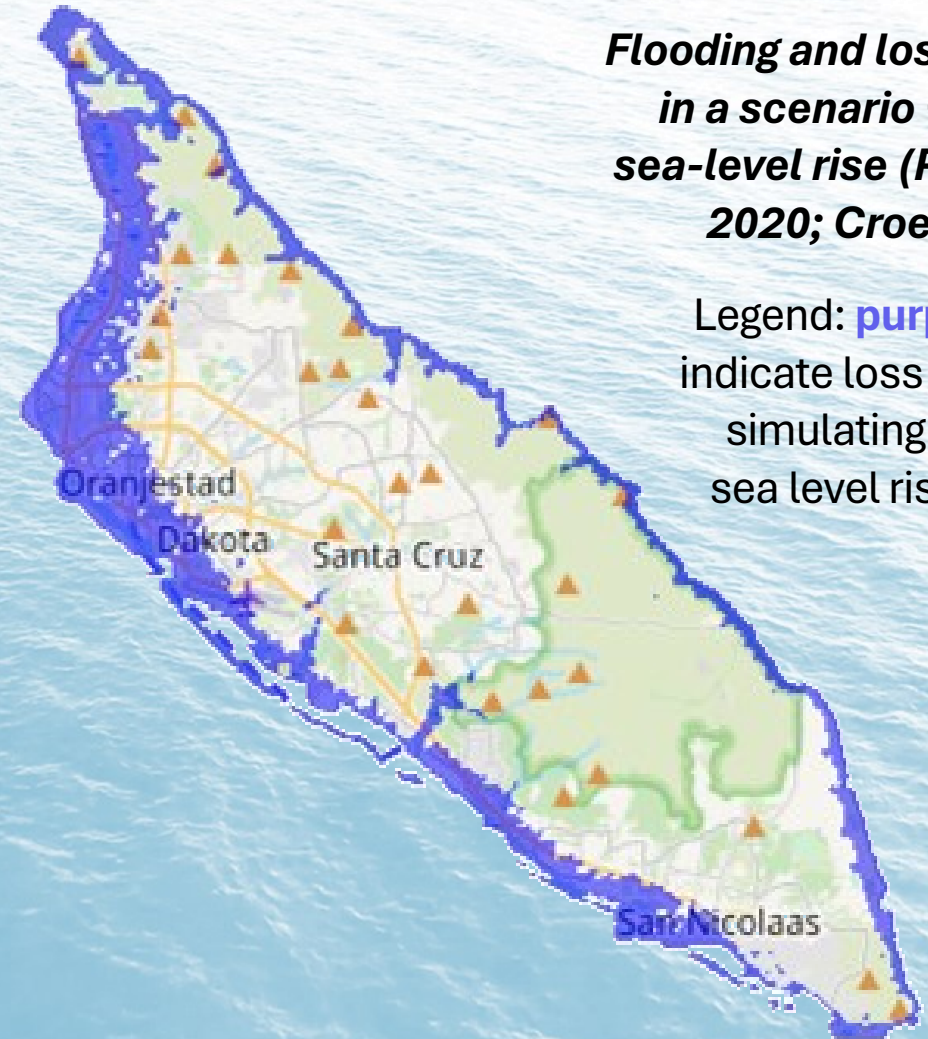
*Rain fall, storm surges, and flooding zones (Peterson, 2020; Croes, 2022; Adapted from CBS, 2016).*

Legend: **Light** and **dark** blue dots indicate pre-existing flooding risk zones due to precipitation.



*Flooding and loss of land in a scenario +1 meter sea-level rise (Peterson, 2020; Croes, 2022).*

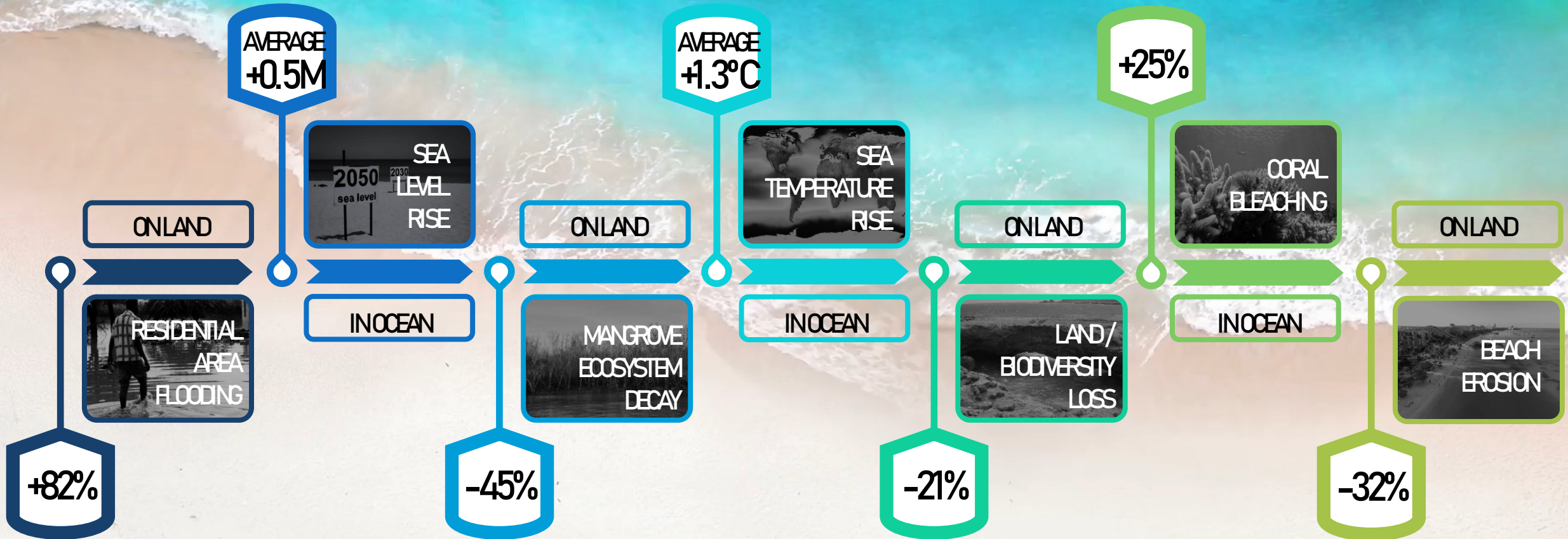
Legend: **purple areas** indicate loss of land in simulating +1 meter sea level rise (2050).





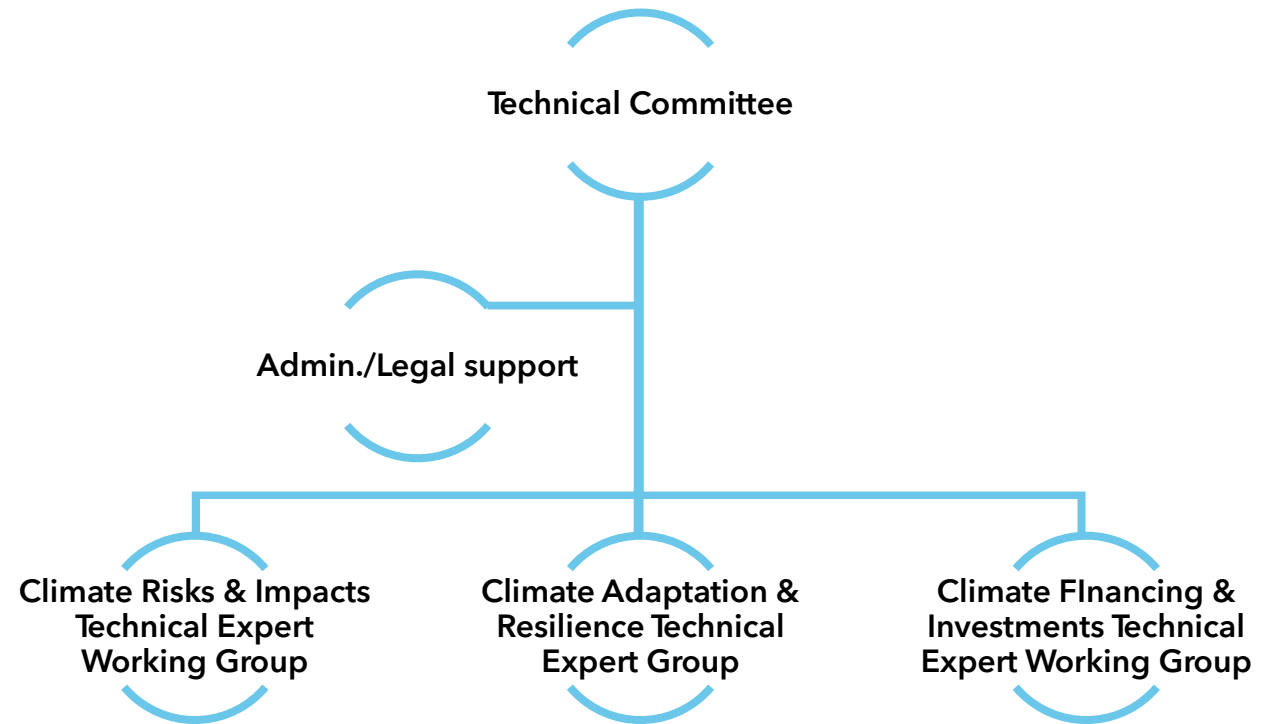
# Other climate effects (1960-2018)

(Bueno et al., 2008; CBS, 2016; ECLAC, 2013; Peterson, 2020; UNDP, 2010)



# National Climate Resilience Council\*

[WWW.NCRC-ARUBA.ORG](http://WWW.NCRC-ARUBA.ORG)



\*NCRC based on new 'climate quintet' model, created by the NCRC Chair

# ARUBA'S CLIMATE ROADMAP



Ministry of Transport, Integrity,  
Nature and Senior Affairs

NATIONAL COLLABORATION THROUGH NCRC

**1**

SCOPING



**2**

COSTING



**3**

FINANCING

# TIMELINE

## SCOPING

2024 - 2025

CORVI ARUBA  
(by STIMSON  
CENTER)

CIA ARUBA  
(by CLIMATE  
ADAPTATION  
SERVICES)

1

## COSTING

2025 - 2026/7

DEVELOP  
PRIORITIES BASED  
ON RESULTS OF  
CORVI & CIA

COSTING BY IMF

ENGAGE IPDC  
FOR SUPPORT ON  
PROJECT DESIGN

2

## FINANCING

2026/7 - 2030

PROJECT DESIGN

PROJECT  
FUNDING  
ALLOCATION /  
APPLICATION

3

PROJECT  
FUNDING  
ALLOCATION /  
APPLICATION

4

PROJECT  
IMPLEMENTATION

PROJECT  
IMPLEMENTATION

MONITOR &  
EVALUATE

5



Ministry of Transport, Integrity,  
Nature and Senior Affairs

THANK YOU



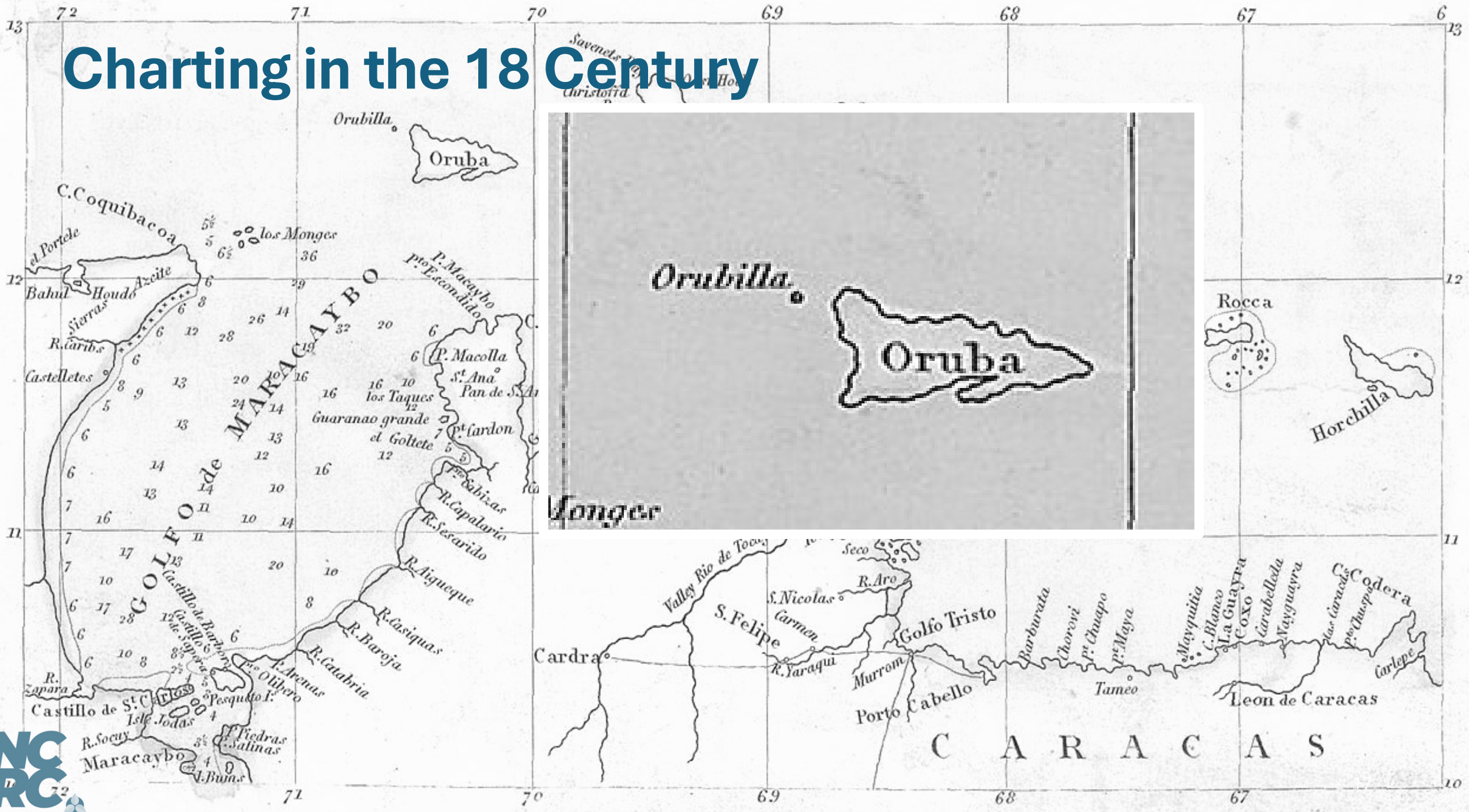
# Charting Climate Resilience Pathways for Aruba

Dr. Ryan R. Peterson  
Chair, National Climate Resilience Council  
[ncrc-aruba.org](http://ncrc-aruba.org)

*Disclaimer: The views expressed in this presentation are those of the author and not necessarily of the Centrale Bank van Aruba, the Government of Aruba, nor any other public, private, non-governmental, academic and civic institution.*



# Charting in the 18 Century

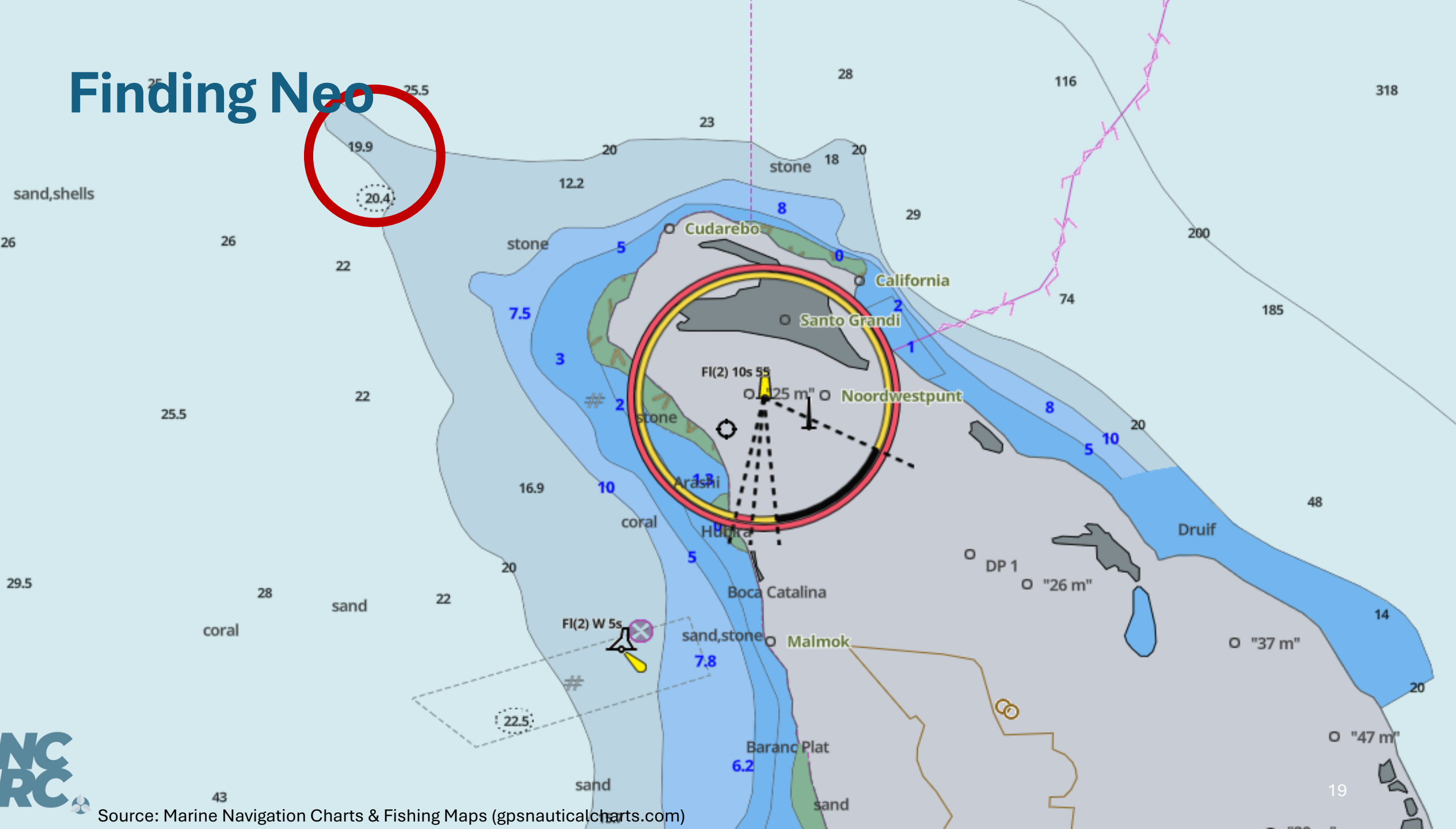


# Orubilla



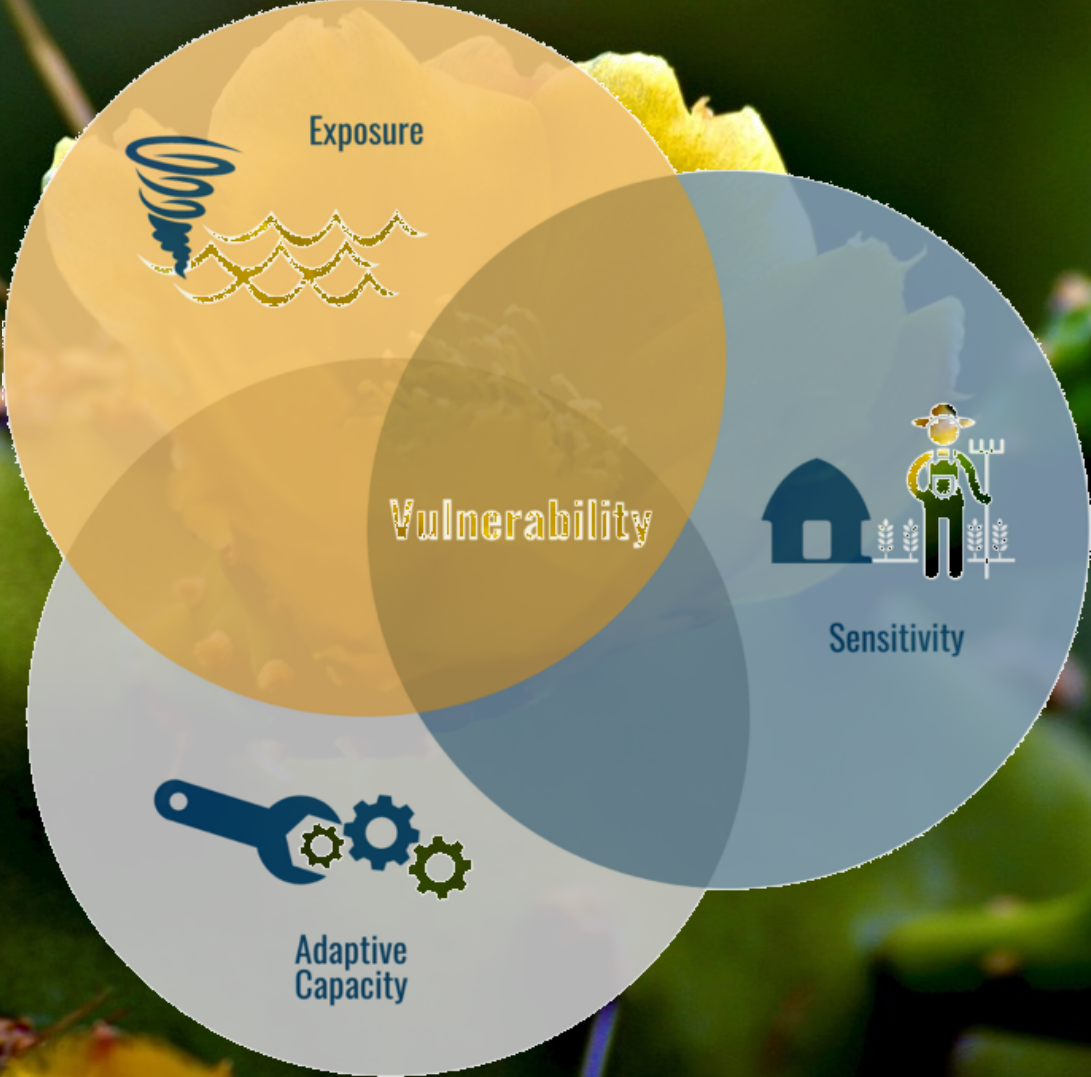


# Finding Neo



Source: Marine Navigation Charts & Fishing Maps (gpsnauticalcharts.com)

# Understanding Climate Risks & Small Island Vulnerabilities





# A Century of Adaptive Capacity



**“Planned anticipatory adaptation** reduces climate-induced vulnerabilities and realizes (socioeconomic) opportunities associated with climate change.

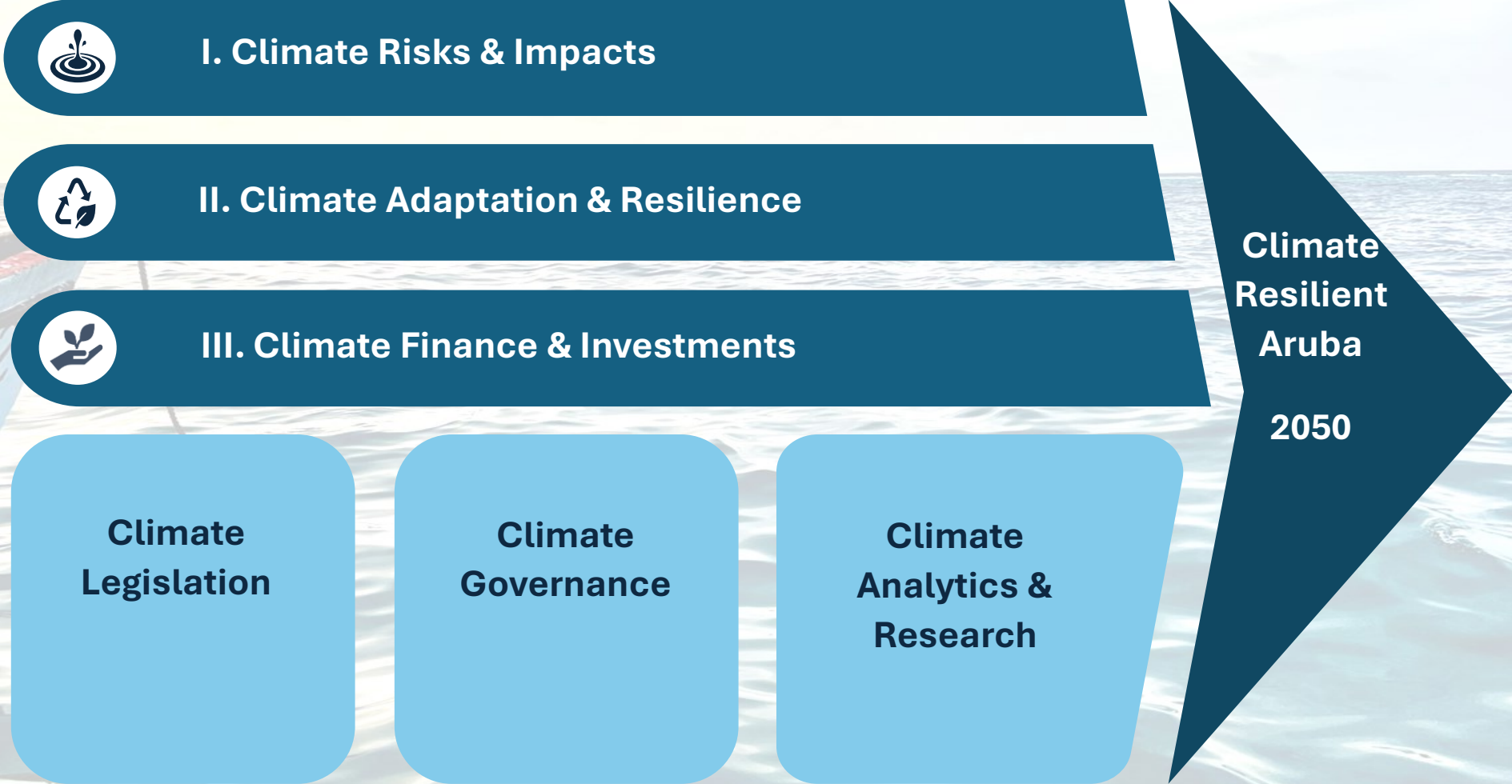
Implementation of adaptation policies, programs, and measures are likely to be effectively implemented if they are consistent with or integrated with (policy) decisions or programs that address non-climatic stresses.

**Enhancement of adaptive capacity is a necessary condition** for reducing vulnerability and realizing benefits, particularly for the most vulnerable regions and socioeconomic groups.”

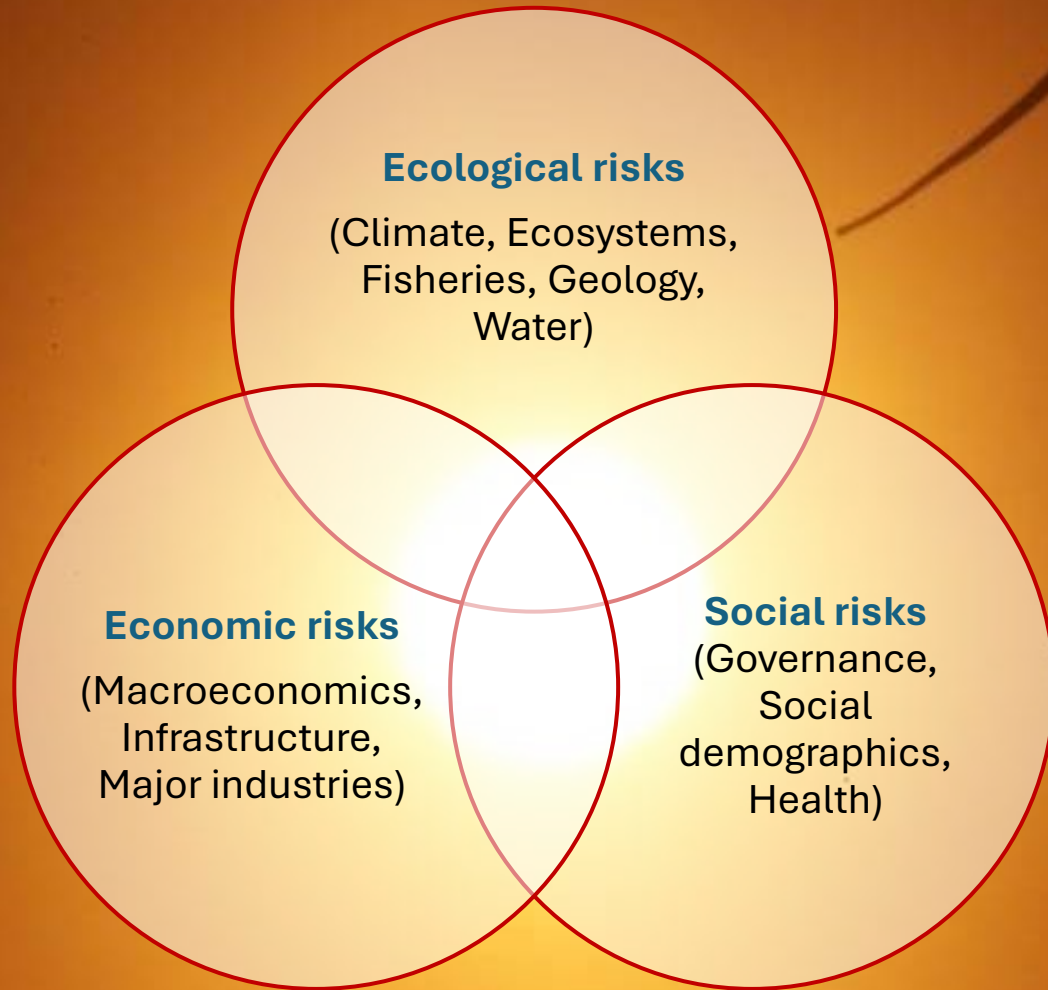


Source: IPCC (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability

# Strategic Pathways & Supporting Pillars



# Climate & Ocean Risk Vulnerability Index (CORVI)



Source: Stimson Center (2022). The climate and ocean risk vulnerability index: Measuring coastal city resilience to inform action.

# The Hottest & Coldest Countries in the World

Countries in the World

World **14.8°C**

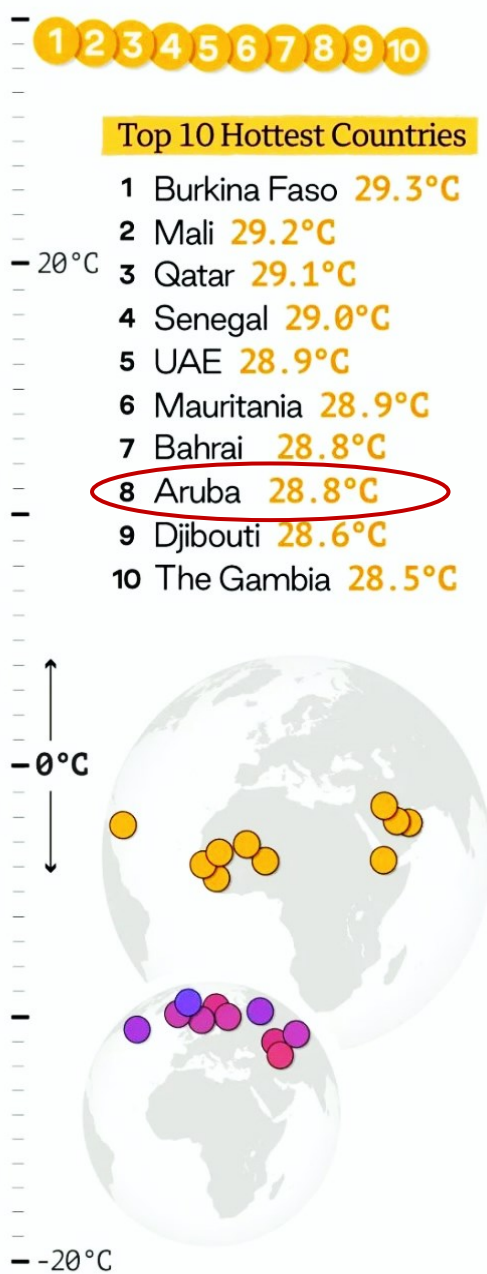
## Top 10 Coldest Countries

- Greenland **-18.6°C**
- Canada **-4.2°C**
- Russia **-2.9°C**
- Mongolia **1.3°C**
- Iceland **2.1°C**
- Norway **2.9°C**
- Finland **3.2°C**
- Sweden **3.8°C**
- Kyrgyzstan **3.9°C**
- Tajikistan **5.1°C**

## Top 10 Hottest Countries

- Burkina Faso **29.3°C**
- Mali **29.2°C**
- Qatar **29.1°C**
- Senegal **29.0°C**
- UAE **28.9°C**
- Mauritania **28.9°C**
- Bahrai **28.8°C**
- Aruba **28.8°C**
- Djibouti **28.6°C**
- The Gambia **28.5°C**

Avg. Temperature in 2022



# GLOBAL Temperature Rise 2050 PROJECTIONS

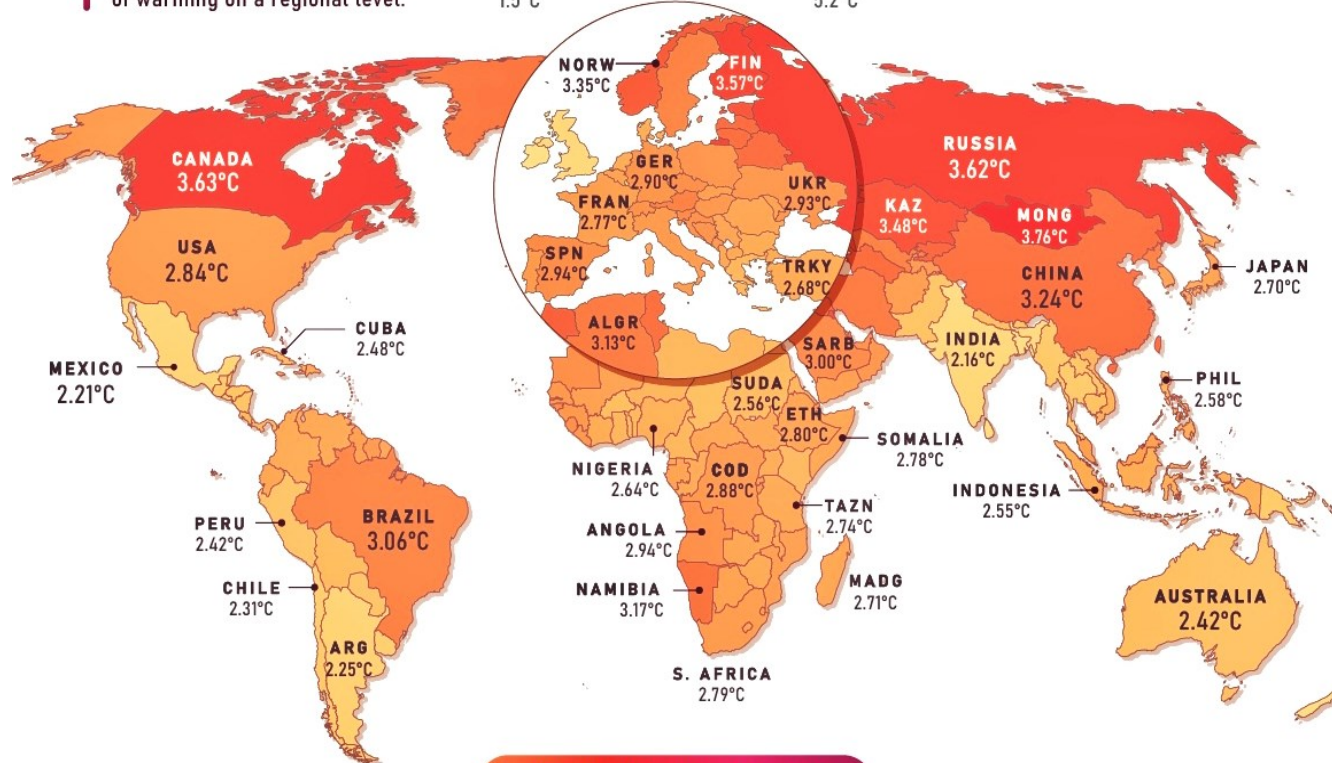
Arctic amplification, geography, weather patterns, ocean currents, and the influence of human activities all affect the level of warming on a regional level.

TEMPERATURE RISE relative to average 1850-1900 temperatures



**NATIONAL AVERAGE, 2050**  
**2.75°C**

<b>MAX</b> 3.76°C	<b>MIN</b> 2.02°C
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AT THIS WARMING LEVEL, THE IPCC IS HIGHLY CONFIDENT THAT:

- Extreme weather events will be more frequent and intense
- Nearly all ecosystems will face high risks of biodiversity loss
- Accelerated sea level rise will threaten coastal cities

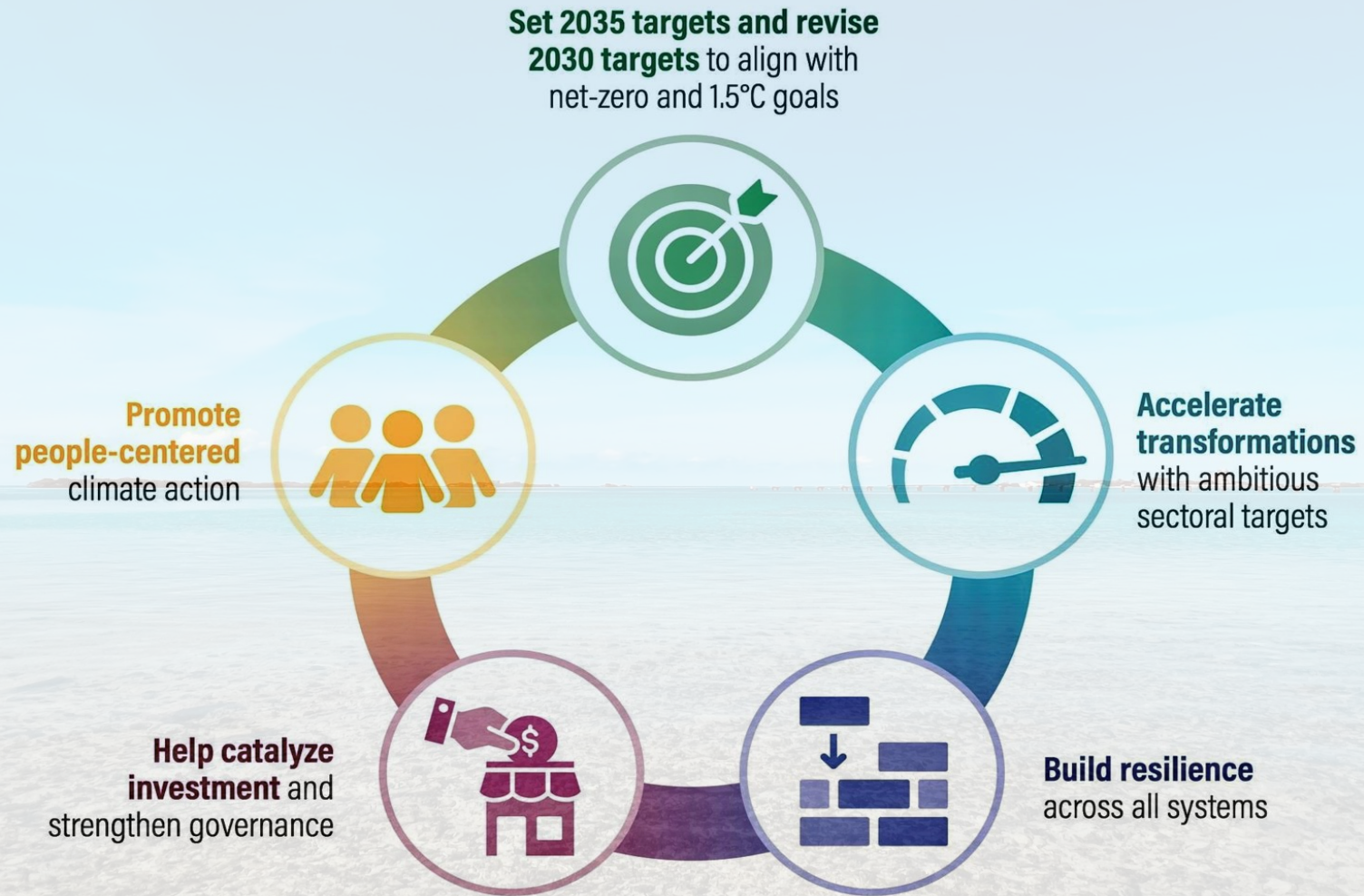
Source: Berkeley Earth, Intergovernmental Panel on Climate Change

This map shows warming projections based on the IPCC's "middle-of-the-road" scenario (titled SSP2-4.5), which is the closest to expected emissions under current policies.

Projection data provided by BERKELEY EARTH.



# A Five-Point Plan for Next Generation NDCs





# Aruba Climate Impact Atlas (CIA)

**Maps**  
The map viewer for Aruba contains all the maps with a brief explanation.  
[Read more](#)

**Map explanations**  
The map explanations provide background information to the main maps.  
[Read more](#)

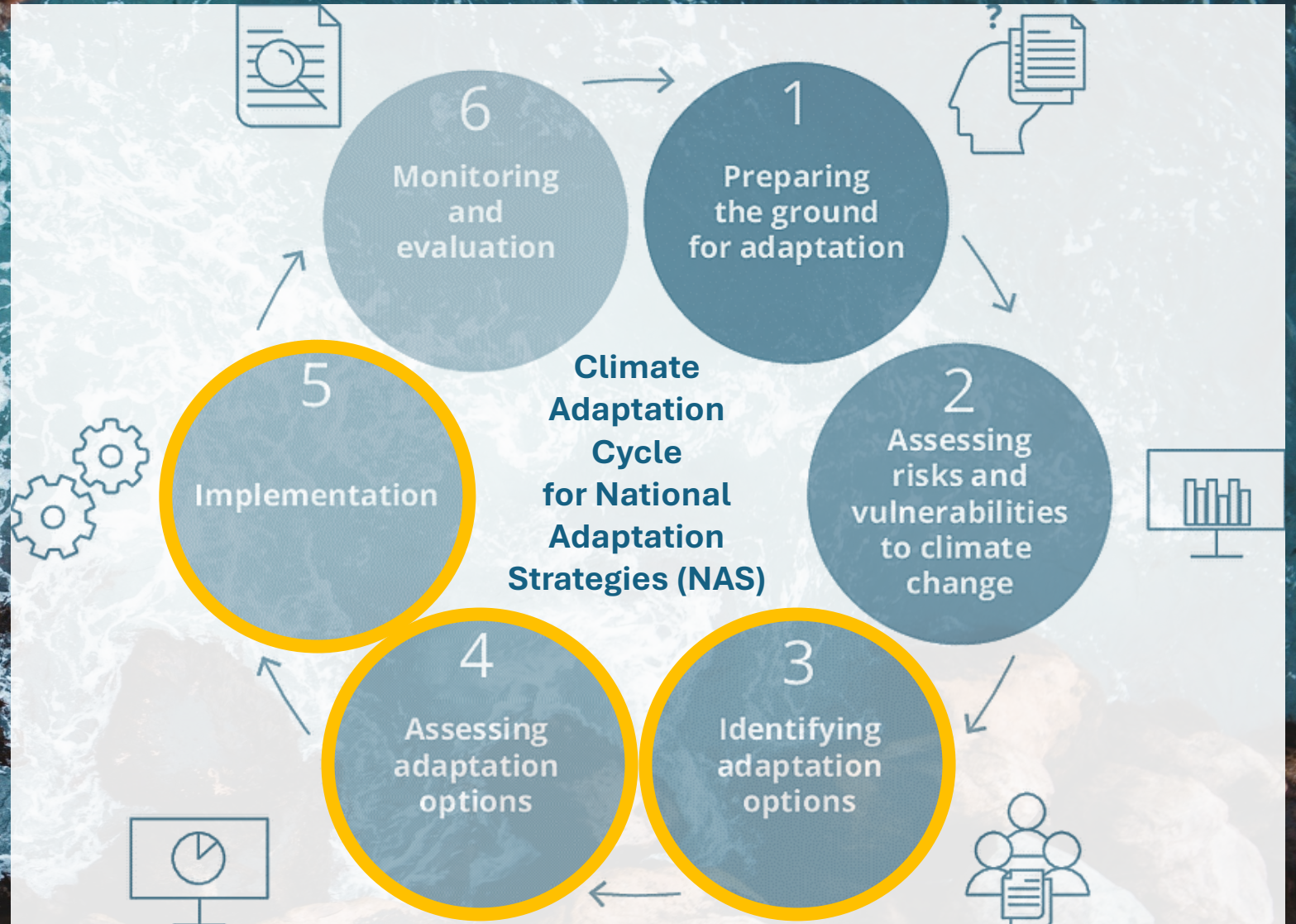
**Climate statistics**  
Information on KNMI climate scenarios for temperature, precipitation and sea level rise.  
[Read more](#)

**Stories**  
The stories provide illustrative narratives on climate impacts and potential solutions.  
[Read more](#)

MALMOK  
Noord  
EAGLE BEACH  
Oranjestad  
Paradera  
Santa Cruz  
Savaneta  
Cura Cabai

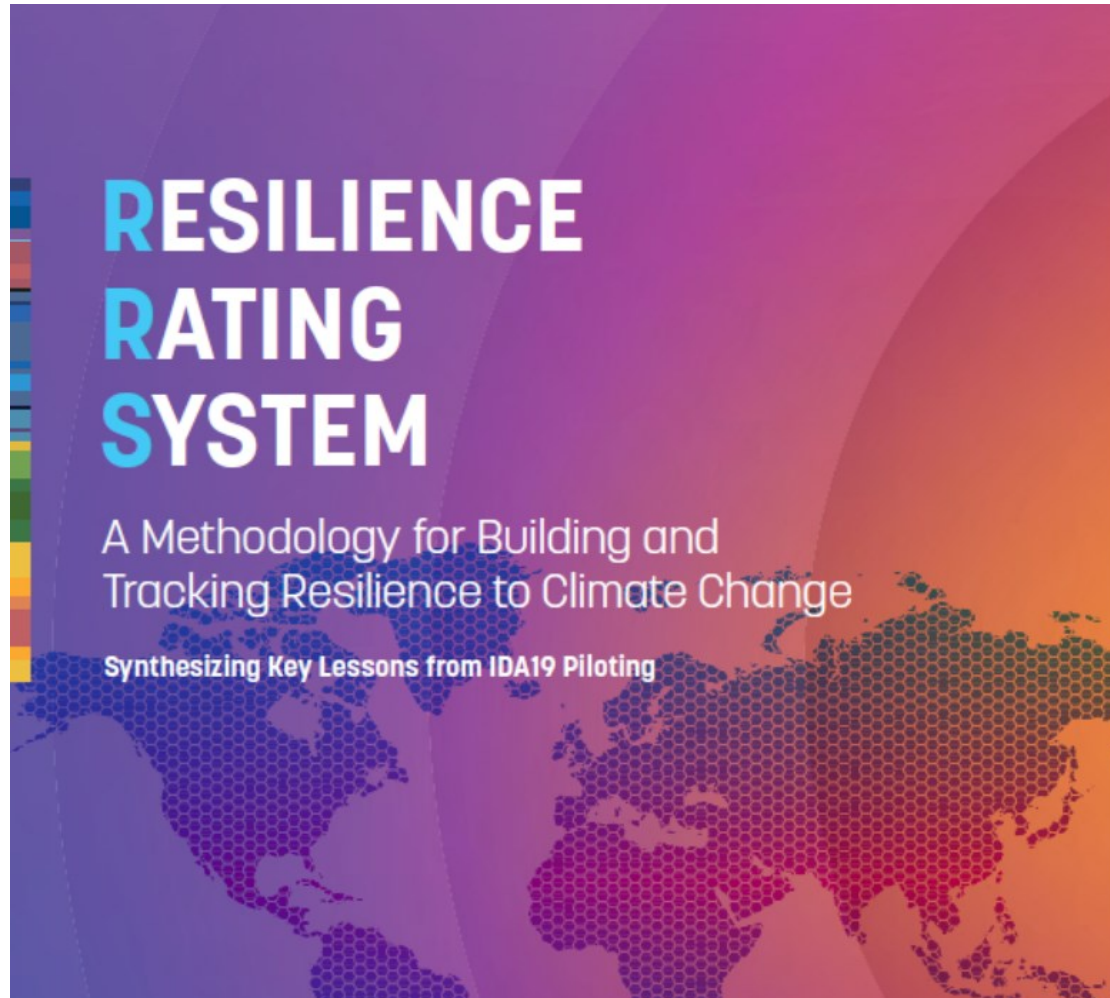
Source: Climate Adaptation Services (2024)

# Climate Adaptation, Financing & Resilience Building



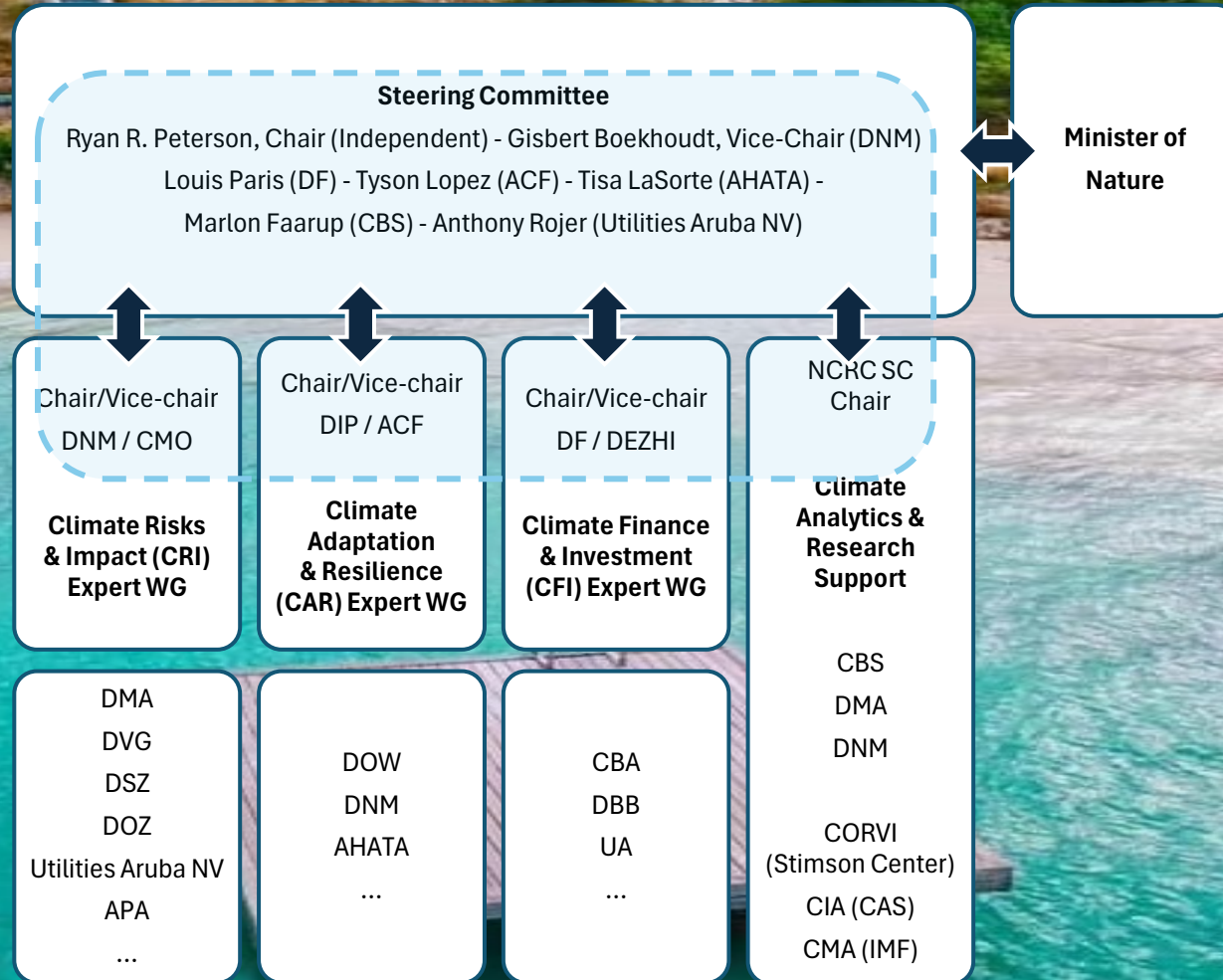
Source: IPCC (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability

# Resilience Rating System for Climate Adaptation



Source: World Bank (2024)

# NCRC Climate Quintet Platform

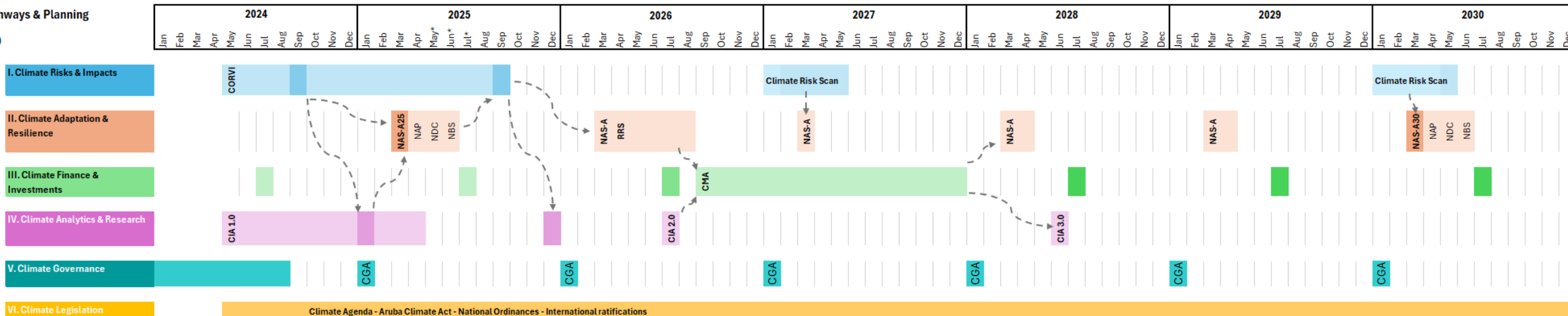


Source: NCRC Governance Charter (2024).

# Charting Climate Resilience Pathways 2024 – 2030

NCRC Pathways & Planning

2024-2030

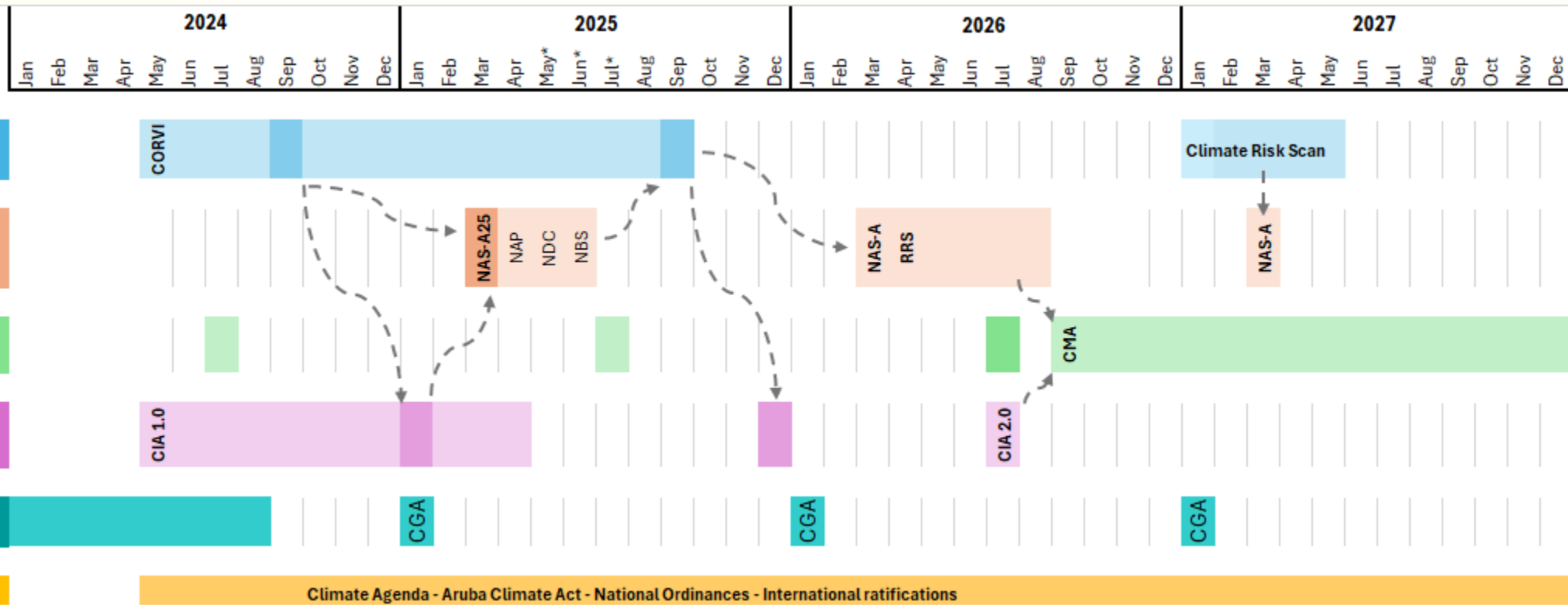


**Legend**

- CORVI:** Climate & Ocean Risks & Vulnerability Index (Stimson)
- NAS-A:** National Adaptation Strategy Aruba
- CMA:** Climate Macroeconomic/-fiscal Assessment (IMF)
- CIA:** Climate Impact Atlas (CAS/IPDC)
- RRS:** Resilience Rating System (World Bank)
- CGA:** Climate Governance Assessment (Oxford)

# NCRC Pathways & Planning

2024-2030



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# NCRC Pathways & Planning

2024-2030

2024												2025											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May*	Jun*	Jul*	Aug	Sep	Oct	Nov	Dec

**I. Climate Risks & Impacts**



**II. Climate Adaptation & Resilience**



**III. Climate Finance & Investments**



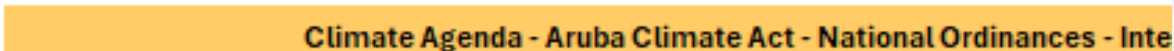
**IV. Climate Analytics & Research**



**V. Climate Governance**



**VI. Climate Legislation**



- Legend
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# Quests & Questions



# Thank you

**Dr. Ryan R. Peterson**  
**Chair, National Climate Resilience Council**  
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