

# WHO special initiative on climate change and health in small island developing States

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# Health risks from climate change



# Vision



By 2030 all health systems in small island developing states are resilient to climate variability and change, and countries around the world are reducing carbon emissions - both to protect the most vulnerable from climate risks, and to gain the health cobenefits of mitigation policies.

# Scope



## **Empowerment**

Raising the voice of SIDS health leaders for climate action.



## **Evidence**

Identifying priority investments, and monitoring their success.



## **Implementation**

Transformational shift to prevention, resilience and sustainability.



## **Resources**

Increasing access to climate and health finance.



# 1. Empowerment: SIDS are stronger together



**Individually, small island States are vulnerable.** Small populations, geographic isolation, high exposure to climate risks, and limited human and financial resources.

**Collectively, they are strong.** Over 40 countries, strong regional institutions, and an organized voice on the world stage, e.g. through AOSIS and UNFCCC.



# 2. Evidence: Country-specific information and investment cases

**CLIMATE AND HEALTH COUNTRY PROFILE – 2017**  
JAMAICA

**CLIMATE AND HEALTH COUNTRY PROFILE – 2015**  
MALDIVES

**CLIMATE AND HEALTH COUNTRY PROFILE – 2015**  
FIJI

**OVERVIEW**

The island nation of the Republic of Fiji in the South Pacific Ocean is an upper-middle income country rich in natural resources. The country's tropical marine climate means the weather is warm all year round with minimal extremes, and variable rainfall which is slightly higher in the warmest months. Most of the land is on volcanic islands, and the country experiences earthquakes, landslides, cyclones, flooding and storm surges [Fiji INDC, 2015].

Though Fiji contributes minimally to global greenhouse gas emissions, this Small Island State is very vulnerable to climate change. Fiji is already experiencing rising sea levels, coastal erosion, water shortages, saltation of water supplies, depleted fishery stocks, large-scale flooding and an increase in vector-borne diseases [Fiji INDC, 2015] – all of which will likely increase as the effects of climate change become more pronounced. Furthermore, informal displacement has already been seen in Fiji due to climate change.

The Ministry of Health has been working to increase its capacity to monitor, assess and respond to hydro-meteorological disasters and climate sensitive diseases, thus reducing health risks associated with climate change. By the year 2030, Fiji commits to reducing emissions by up to 20% against a business as usual level, and increasing electricity generation through renewable energy from 60% (2013) to 100% (Fiji INDC, 2015).

**SUMMARY OF KEY FINDINGS**

- In Fiji, under a high emissions scenario, mean annual temperature is projected to rise by about 3.2°C on average from 1990 to 2100. If global emissions decrease rapidly, the temperature rise is limited to about 0.9°C (page 2).
- In Fiji, under a high emissions scenario, the number of days of warm spell<sup>1</sup> is projected to increase from about 25 days in 1990 to about 350 days on average in 2100. If global emissions decrease rapidly, the days of warm spell are limited to about 160 on average (page 2).
- In Fiji, under a high emissions scenario, and without large investments in adaptation, an annual average of about 4,200 people are projected to be affected by flooding due to sea level rise between 2010 and 2100 (page 2).
- In Fiji, the risk of dengue fever is expected to increase under both high and low emissions scenarios (page 3).

**OPPORTUNITIES FOR ACTION**

Fiji has an approved national health adaptation strategy and is currently implementing projects on health adaptation to climate change. Fiji is also taking action to build institutional and technical capacities to work on climate change and health and is working to increase climate resilience of health infrastructure. Country reported data (see section 6) indicates that there are further opportunities for action in the following areas:

- Adaptation**
  - Fiji is currently undertaking an Integrated Vulnerability and Adaptation Assessment (commenced late 2015). Results this assessment and further advance work in this area.
  - Continued work on the development of an Early Warning System, which includes climate variables, for dengue, typhoid and leptospirosis, and validates the complex diarrhoea model.
  - Continued work on the Fiji Ministry of Health/WHO project on adult mosquito trapping which aims at producing a warning system for climate induced mosquito density risks.
  - Strengthen financing mechanisms by including the estimated costs to implement the Climate Change and Health Strategic Action Plan (2016-2020) in planned allocations.
- Mitigation**
  - Include the health implication of climate change mitigation policies in the national strategy for climate change mitigation (currently in draft).

**DEMOGRAPHIC ESTIMATES**

Population (2013)	800 k (thousand)
Population growth rate (2013) <sup>2</sup>	0.7%
Population living in urban areas (2013) <sup>3</sup>	53.0 %
Population under five (2013) <sup>4</sup>	10.2 %
Population 65 years or older (2013) <sup>5</sup>	5.4 %

**ECONOMIC AND DEVELOPMENT INDICATORS**

GDP per capita (current US\$, 2013) <sup>6</sup>	4,166 (USD)
Total expenditure on health as % of GDP (2013) <sup>7</sup>	4.1 %
Percentage share of income for lowest 20% of population (2013) <sup>8</sup>	NA
HEI (2013) -/+ 0.01 change from 2005 is indicated with arrow <sup>9</sup>	0.724 ▲

**HEALTH ESTIMATES**

Life expectancy at birth (2013) <sup>10</sup>	70 years
Under-5 mortality per 1000 live births (2013) <sup>11</sup>	23

**INVESTMENT CASES**

**INTEGRATED DISEASE (ID) STRATEGY**

Health resilience to climate change is expected to increase the risk of vector-borne diseases including an increase in the capacity to monitor, assess and respond to hydro-meteorological disasters and climate sensitive diseases in several Jamaican cities in 2012 was WHO recommended guideline values. Air quality in the particulate matter, pose a substantial risk to human health.

**FOR ACTION**

Implementing projects on health adaptation and has implemented actions to build technical capacities to work on climate change are opportunities for action in the following areas:

Develop a national health adaptation strategy to be led by the Ministry of Health. National assessment of climate change impacts, and adaptation for health. Efforts to increase the climate resilience of health infrastructure. National strategy for climate change mitigation (the health implications and co-benefits of climate change). Justification of the health co-benefits of climate change policies.

**FINANCIAL INVESTMENT CASE**

Investment in health adaptation (USD million)	2,800 thousand
Investment in health adaptation (USD million)	0.3%
Investment in health adaptation (USD million)	55.7%
Investment in health adaptation (USD million)	7.2%
Investment in health adaptation (USD million)	9.7%
Investment in health adaptation (USD million)	4,868 USD
Investment in health adaptation (USD million)	5.4%
Investment in health adaptation (USD million)	0.22%
Investment in health adaptation (USD million)	70 years
Investment in health adaptation (USD million)	%

**REFERENCES**

1. World Meteorological Organization (WMO) (2013) *World Meteorological Report*, WMO, Geneva, Switzerland.

2. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

3. Global Health Expenditure Database (2014) *Global Health Expenditure Database*, WHO, Geneva.

4. Global Health Expenditure Database (2014) *Global Health Expenditure Database*, WHO, Geneva.

5. Global Health Expenditure Database (2014) *Global Health Expenditure Database*, WHO, Geneva.

6. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

7. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

8. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

9. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

10. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

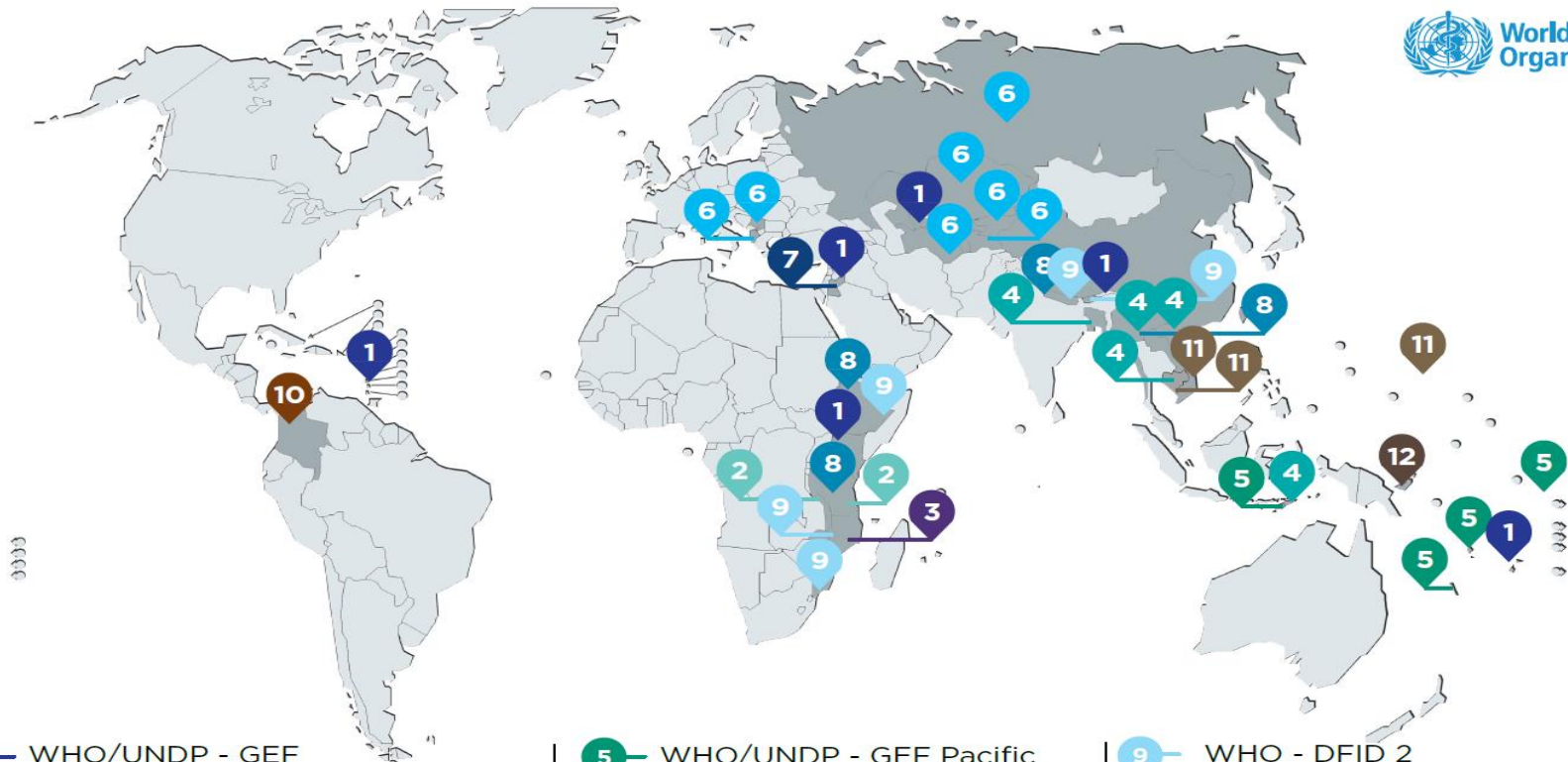
11. World Development Indicators (2014) *World Development Indicators*, World Bank, Washington, DC.

WHO/UNFCCC is working with countries, COs and ROs to produce **country profiles** of climate and health for all SIDS

Can support countries to develop **evidence-based business cases** for investment in climate resilient health systems, and health-promoting mitigation



# 3. Implementation: Increasing coverage of SIDS climate and health programmes



- 1 - WHO/UNDP - GEF
- 2 - WHO/WMO/WFP/IFRC - Norway
- 3 - WHO - Flanders
- 4 - WHO/UNDP - GEF Asia

- 5 - WHO/UNDP - GEF Pacific
- 6 - WHO - BMU
- 7 - WHO - MDG-F
- 8 - WHO - DFID

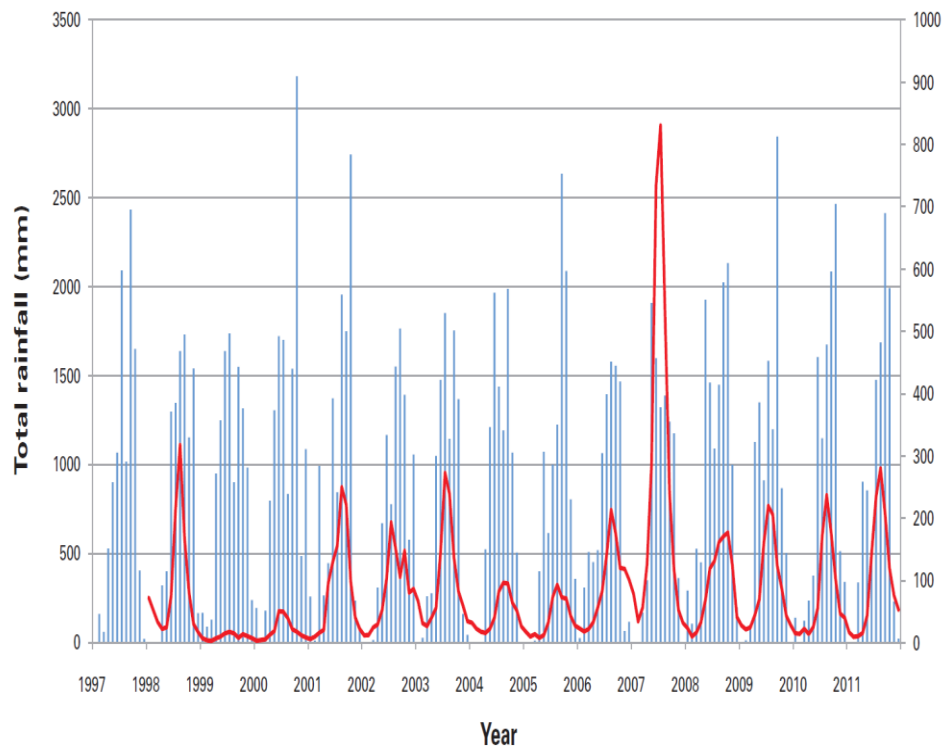
- 9 - WHO - DFID 2
- 10 - WB - GEF
- 11 - ADB - NDF
- 12 - UNDP - GEF



# Implementation: Scale up and share best practice



“Smart “ (Safe and Green) hospitals:  
Georgetown Hospital in Saint Vincent & the Grenadines



Dengue early warning system, based on  
precipitation





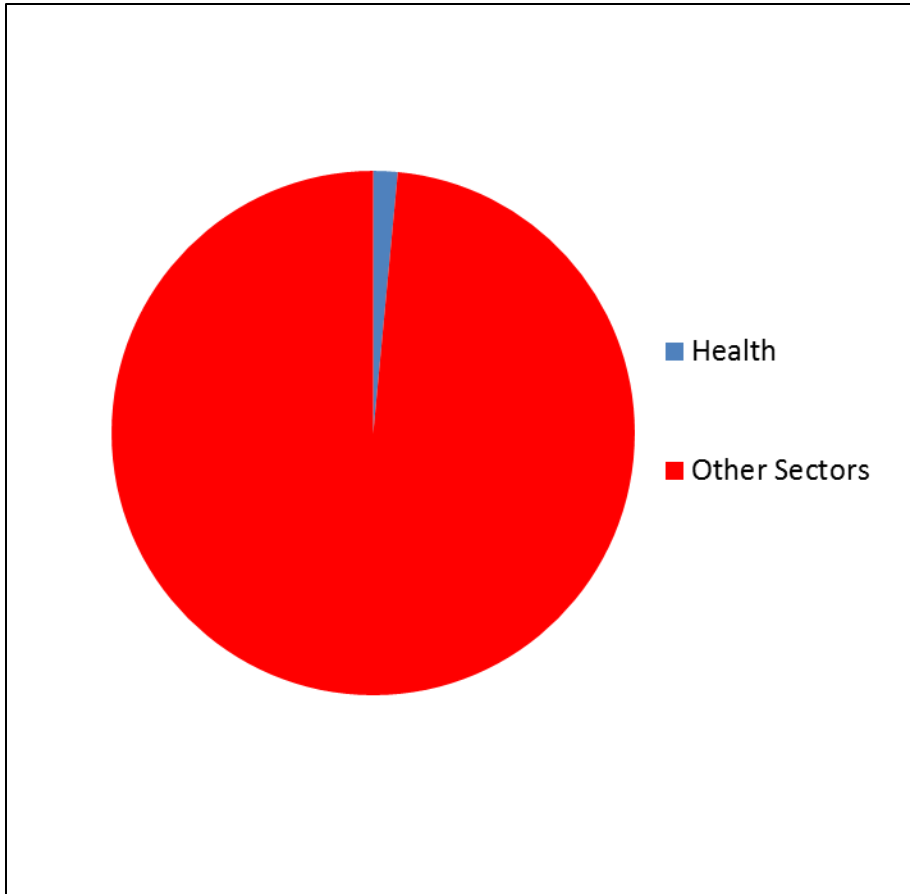


# 3. Implementation: Moving from projects to real health system resilience





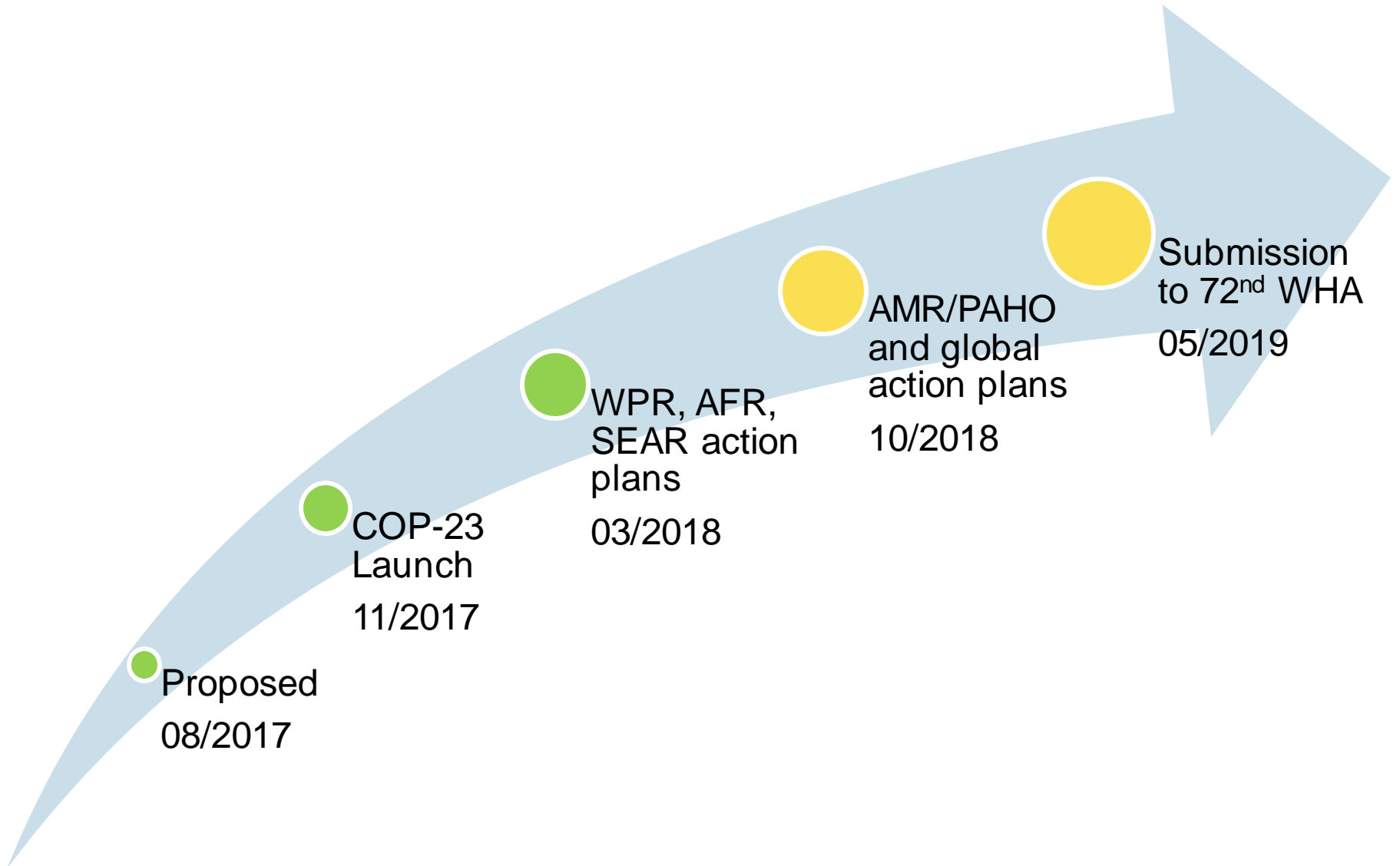
## 4. Financing: Addressing the current neglect of support for climate and health



Climate change adaptation funds allocated to health projects (up to 2016)

- Climate finance itself is insufficient.
- Health is poorly represented within climate project funding.
- SIDS are poorly represented in climate and health project funding (only 2 of 30 large scale projects implemented to date).

# Summary of Progress



Proposed  
08/2017

COP-23  
Launch  
11/2017

WPR, AFR,  
SEAR action  
plans  
03/2018

AMR/PAHO  
and global  
action plans  
10/2018

Submission  
to 72<sup>nd</sup> WHA  
05/2019

# Next steps

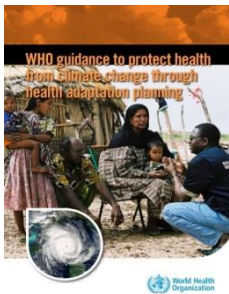


United Nations Framework  
Convention on Climate Change



**Empowerment:** Integration and promotion in key political mechanisms. Report to UNFCCC, AOSIS.

**Evidence:** Update technical support package, monitoring through WHO/UNFCCC country profiles.



**Implementation:** Ensure Secretariat support for national adaptation planning and project proposals.



GREEN  
CLIMATE  
FUND

**Financing:** Formalize relationships with climate finance mechanisms to support Ministries of Health.

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**Thank you**