

Metrics to Support Climate and Health Action

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World Bank Climate and Health Analytics



Climate and
Health
Vulnerability
Assessment
(CHVA)



Climate and
Health
Economic
Valuation Tool
(CHEVT)



Health Sector
Carbon
Footprinting

Climate and Health Vulnerability Assessment



Climatology

- Baseline temp, precipitation, humidity
- Sea level
- Extremes
- Today, 2030's, 2050's
- CMIP5* - RCP 4.5 & 8.5

Health Risks

- Selected based on desktop review
- Follows identified climate exposures
- Focus on 3-5 highest priority

Adaptive Capacity

- Structured by 6 Health System Building Blocks
- Current Capacity
- Gaps
- Predicted impact of climate change

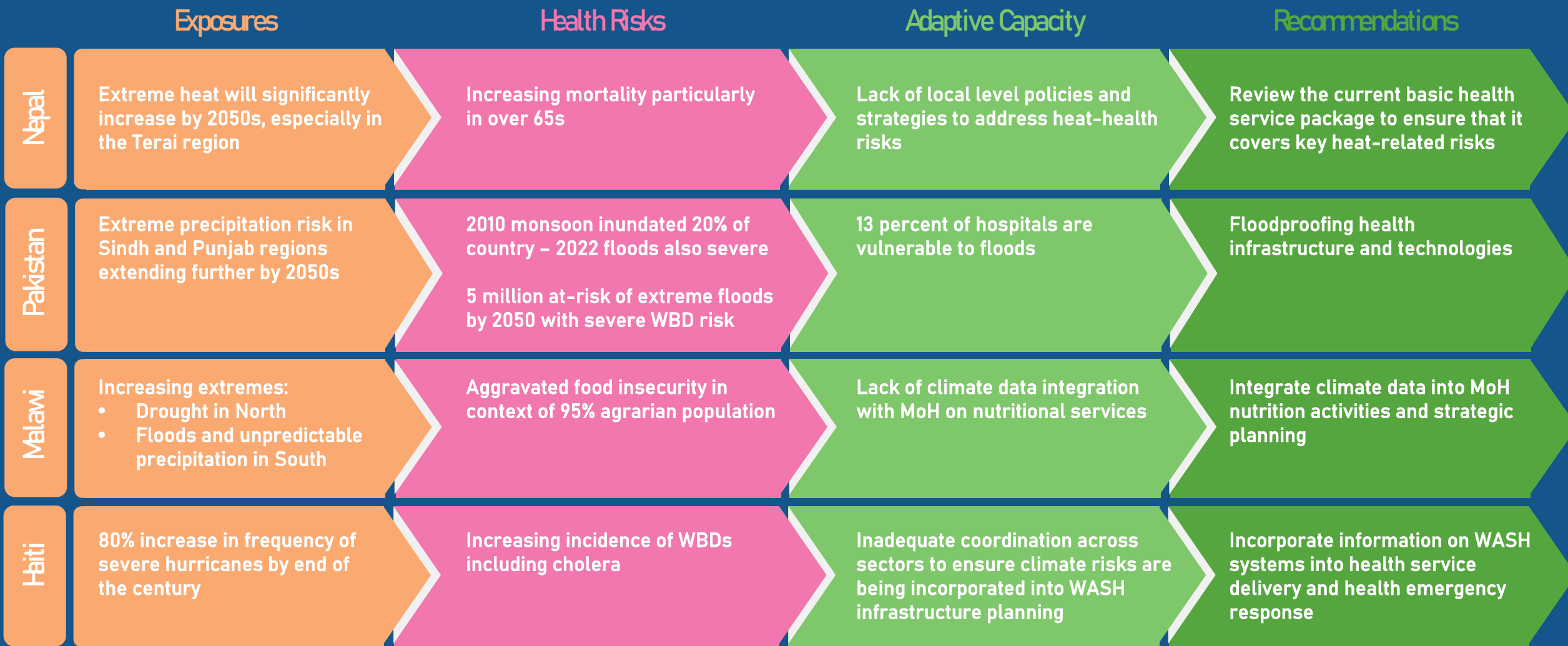
Recommendations

- 10 Components of Climate Resilient Health Systems Framework
- Integrated with WB Operational Footprint

Climate and Health Vulnerability Assessment



Climate and Health Vulnerability Assessment



Climate and Health Economic Valuation

- Majority of economic assessments of climate-related health risks limited to damage to property, infrastructure, and crops.
- A wealth of evidence links climate change to exacerbation of several health relevant exposures
- Limited available data at national and local levels – particularly in the most climate vulnerable countries.



Therefore, **Climate and Health Economic Valuation (CHEV)**, to enable countries to estimate the health-related climate economic impacts

CHEV Methodology

STEP 1: QUANTIFY

Quantify climate-related number of cases and deaths of malaria, dengue, diarrheal, extreme heat, extreme events, stunting

INPUTS

1. Dose response function
2. Climate data
3. Economic data
4. Demographic data
5. Health data

OUTPUT

Climate-attributable morbidity and mortality



STEP 2: VALUE

Quantify the monetary value on the burden of cases and/or deaths using the **Cost of Illness** (includes productivity loss) and/or the **VSL** or **Lost earnings**

Mortality

Morbidity

Statistical value of life (VSL)

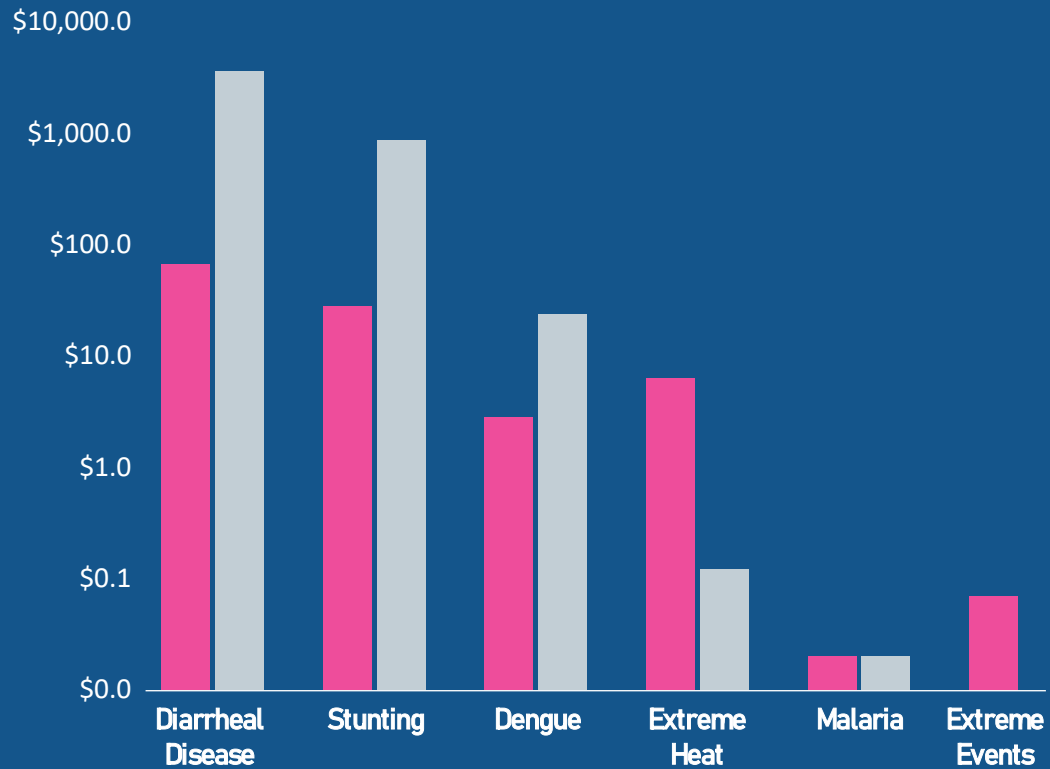
Cost per episode

Cost of climate-related morbidity and mortality

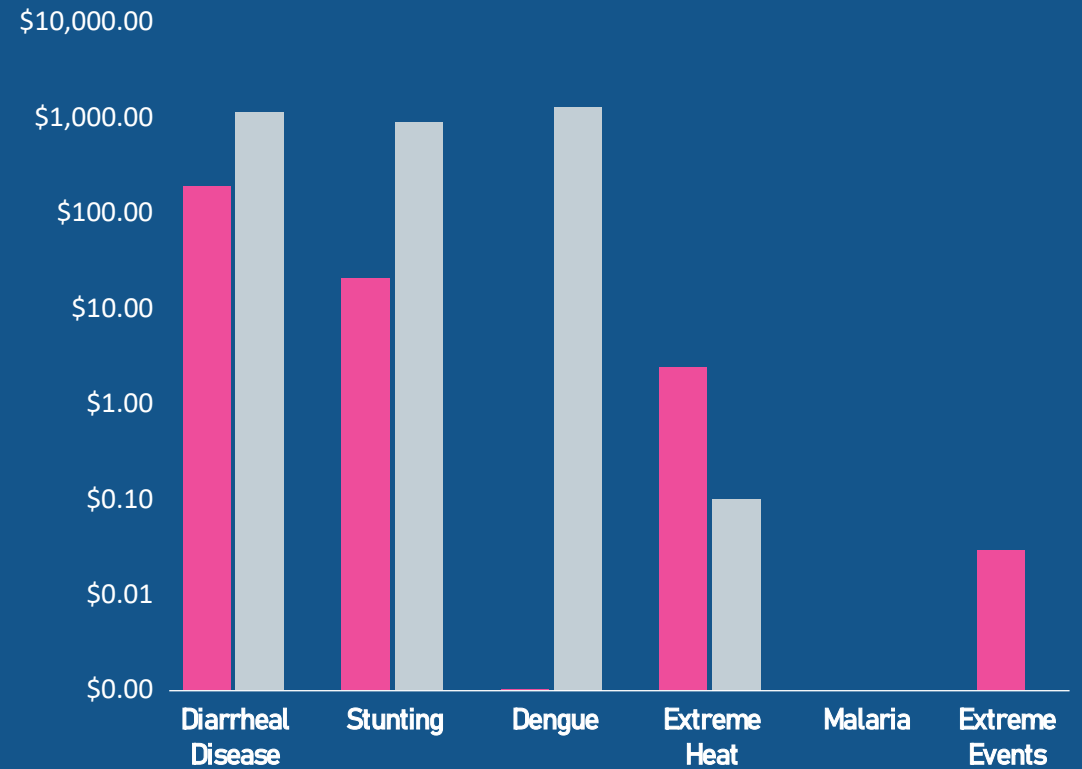
Climate and Health Economic Valuation



Bangladesh

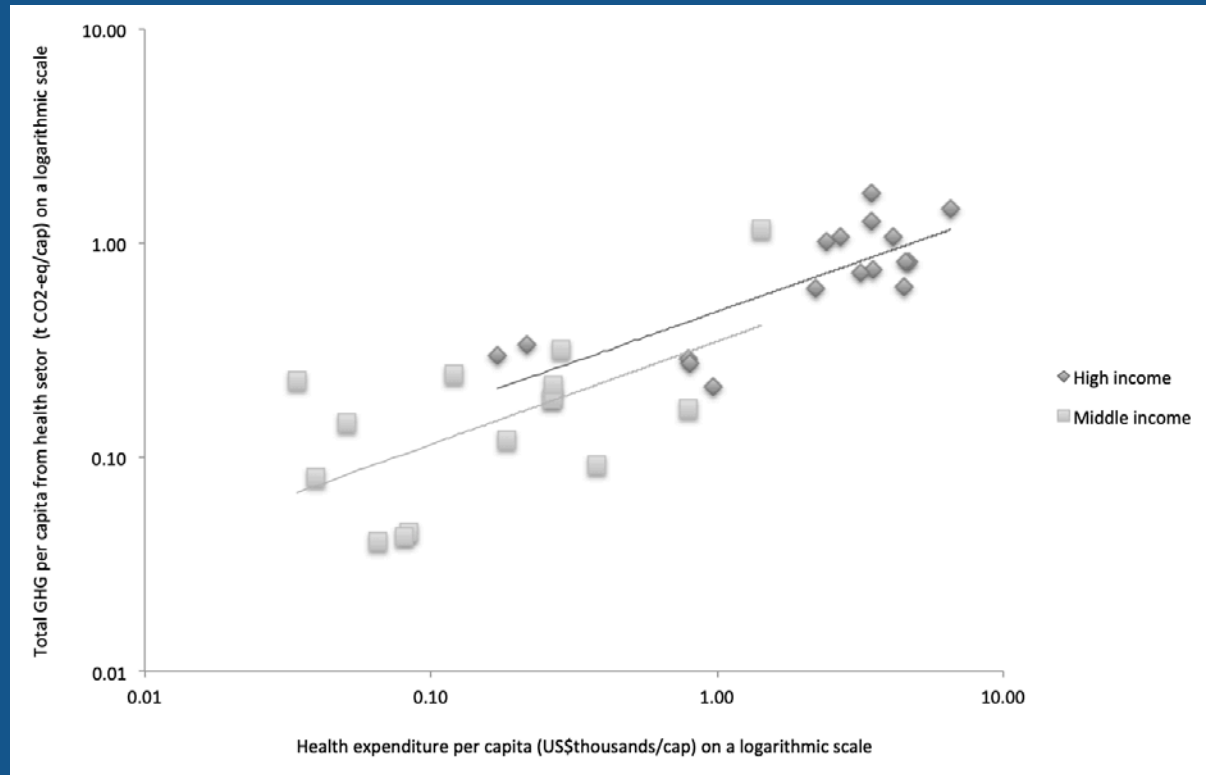
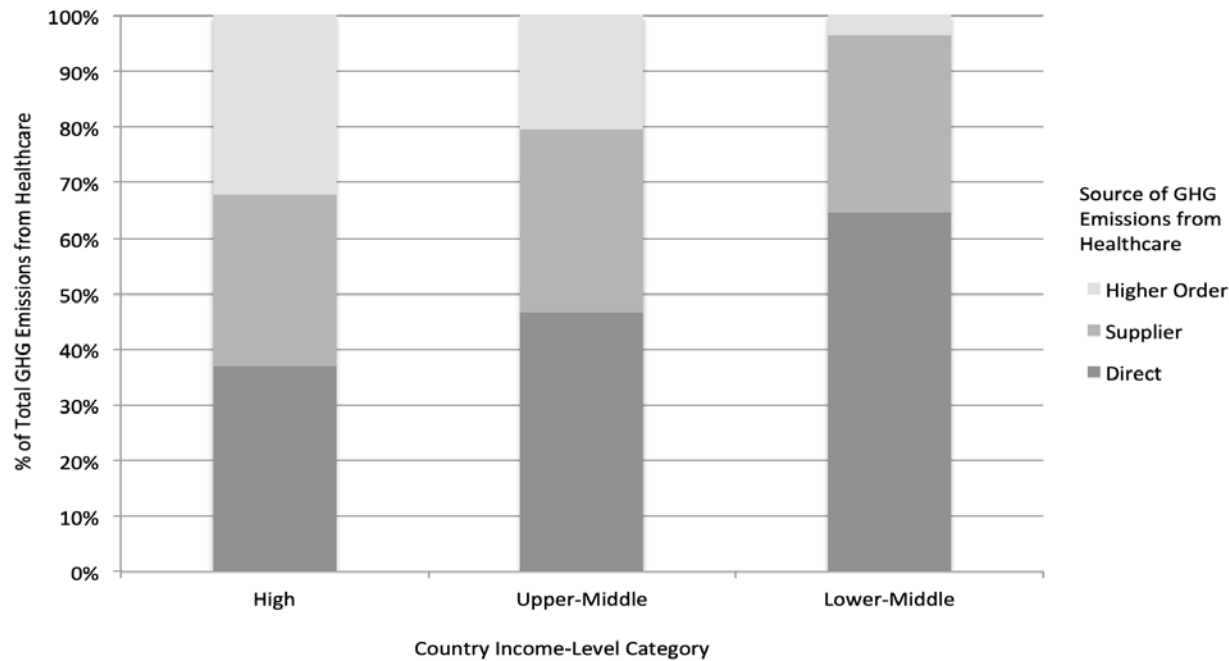


Egypt



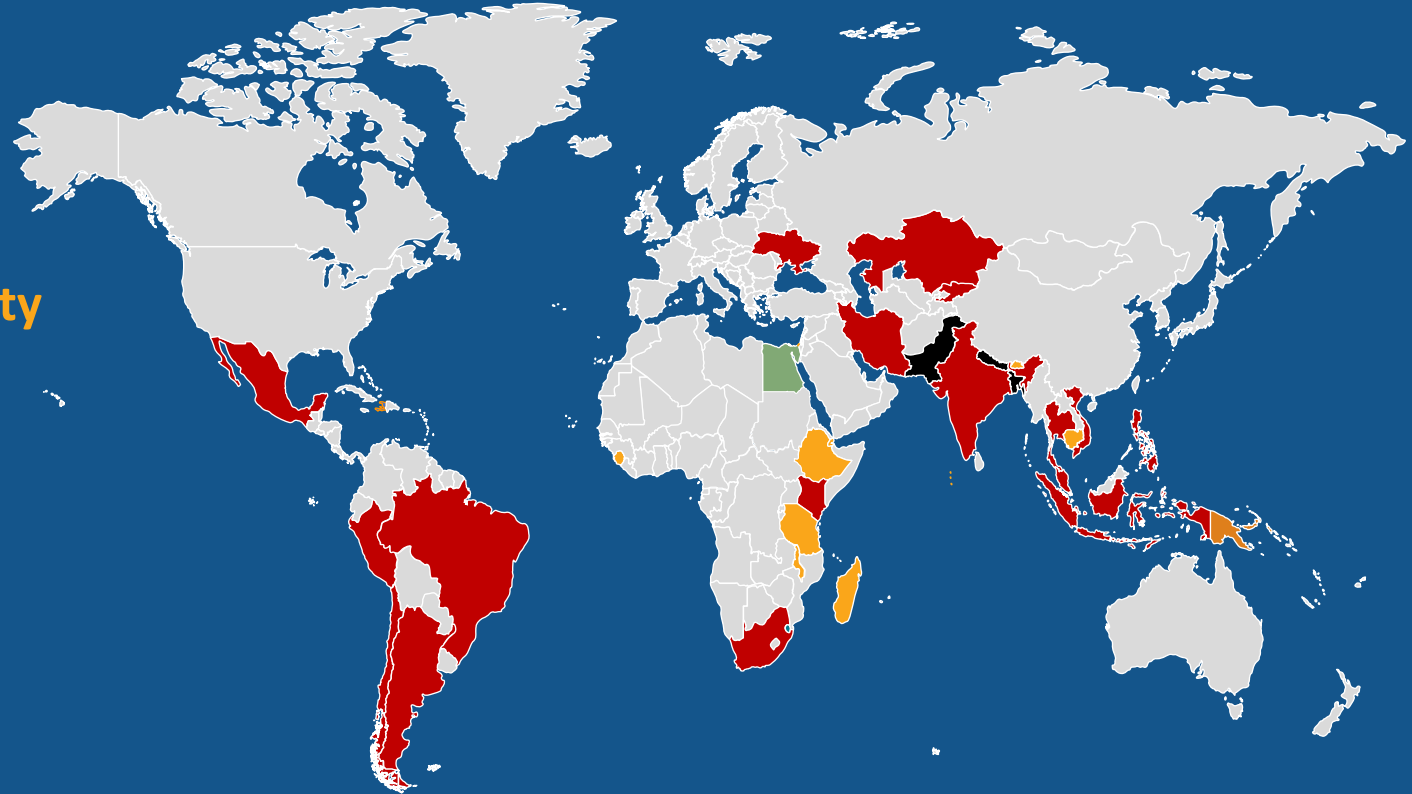
■ Mortality
■ Morbidity

Health Sector Carbon Footprinting



World Bank Global Engagement

- Climate and Health Vulnerability Assessment (CHVA)
- Climate and Health Economic Valuation (CHEV)
- CHVA & CHEV
- Carbon Footprint



THANK YOU

