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

Health Risks

Adaptive Capacity

Recommendations

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

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

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

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





Climate and Health Vulnerability Assessment





Climate and Health Vulnerability Assessment

	Exposures	Health Risks	Adaptive Capacity	Recommendations
Nepal	Extreme heat will significantly increase by 2050s, especially in the Terai region	Increasing mortality particularly in over 65s	Lack of local level policies and strategies to address heat-health risks	Review the current basic health service package to ensure that it covers key heat-related risks
Pakistan	Extreme precipitation risk in Sindh and Punjab regions extending further by 2050s	2010 monsoon inundated 20% of country – 2022 floods also severe 5 million at-risk of extreme floods by 2050 with severe WBD risk	13 percent of hospitals are vulnerable to floods	Floodproofing health infrastructure and technologies
Malawi	Increasing extremes: • Drought in North • Floods and unpredictable precipitation in South	Aggravated food insecurity in context of 95% agrarian population	Lack of climate data integration with MoH on nutritional services	Integrate climate data into MoH nutrition activities and strategic planning
Haiti	80% increase in frequency of severe hurricanes by end of the century	Increasing incidence of WBDs including cholera	Inadequate coordination across sectors to ensure climate risks are being incorporated into WASH infrastructure planning	Incorporate information on WASH systems into health service delivery and health emergency response





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



STEP 2: VALUE

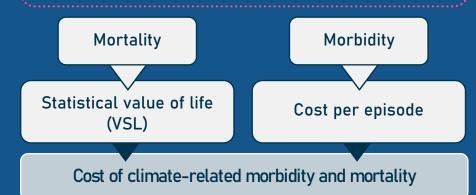
Quantify the monetary value on the burden of cases and/or deaths using the **Cost of Illness** (includes productivity loss) and/or the **VSL** or Lost earnings

INPUTS

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

OUTPUT

Climate-attributable morbidity and mortality







Climate and Health Economic Valuation

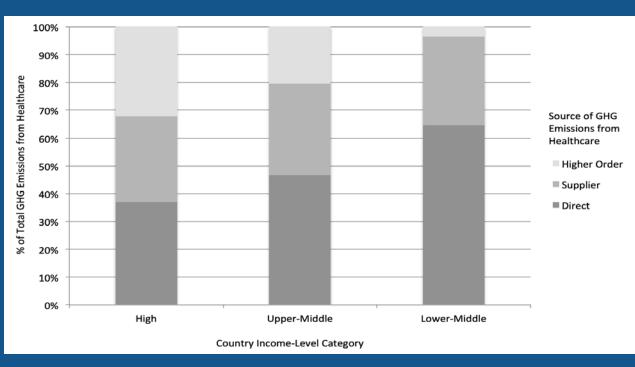


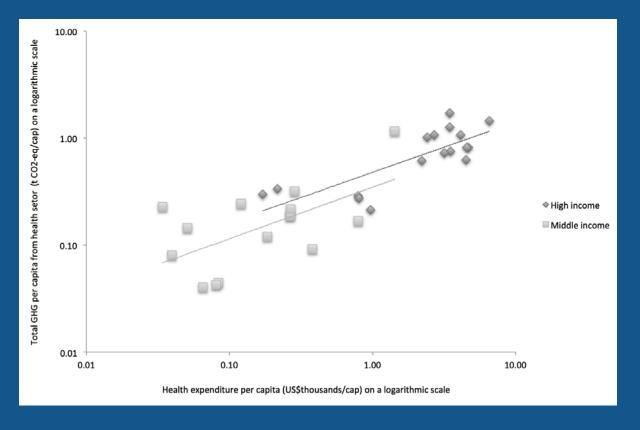




Health Sector Carbon Footprinting



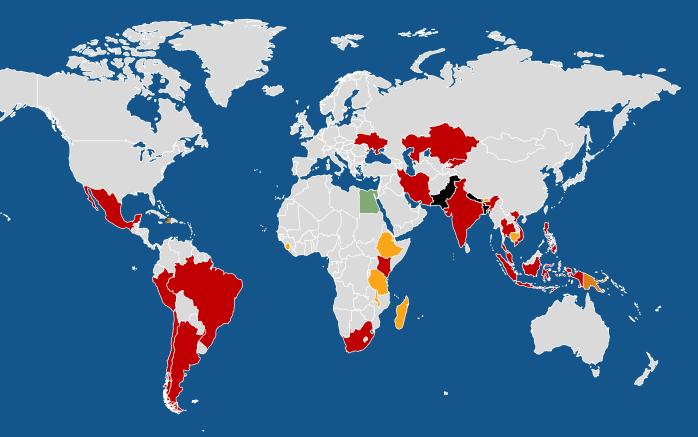






World Bank Global Engagement

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







THANKYOU



