

# **ADB's Adaptation Program: poverty implications and emerging responses**

June 2008

Regional and Sustainable Development  
Department

**Homeless**

**Landless**

**Women**

**The world's  
most vulnerable people are also at  
greatest risk to climate change  
because they have the least capacity  
to adapt**

**Children**

**Aged**

**Ethnic Minorities**

**Poor**

**Climate  
Scenarios**

**Social and Environment  
Impact Predictions**

**Therefore, adaptation measures  
need to incorporate poverty  
reduction policies and practices**

**Policy  
Reform**

**Engineering  
Design**

**Investment  
Planning**

**Land Use  
Planning**

## Relationship between increased intensity & frequency of climate impacts on localized environments, & resulting poverty implications

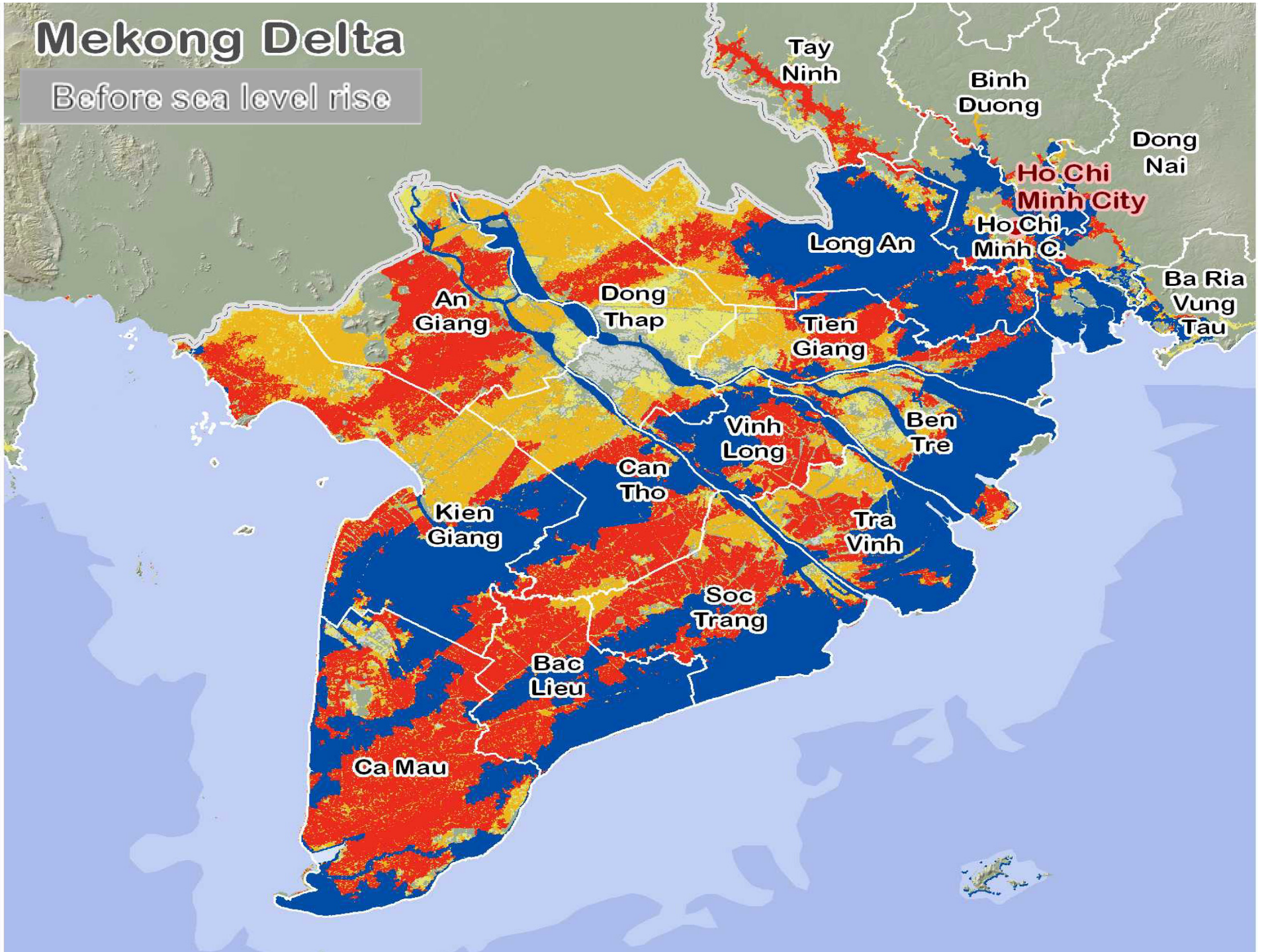
- Climate extreme weather & variability exacerbates existing risk and vulnerability of low-income community livelihoods
- Ecosystem dependent village markets and urban poor have inadequate access to resources to adapt
- Lower resilience to climate stressors/ climate-induced ecological disasters
- Need to address structural elements of poverty through development projects, incorporating community-based (participatory) climate change actions

# Case Study from Vietnam: Asian Coastal Mega-Cities

- ADB, WB & JBIC: joint sponsors of analysis
- Manila, Bangkok, Kolkata, Ho Chi Minh City
- Parameters for estimation and valuation:
  - Primary: Flooding, heat, sea level
  - Secondary: Storm surge, typhoons
- Maps, gross annual damages

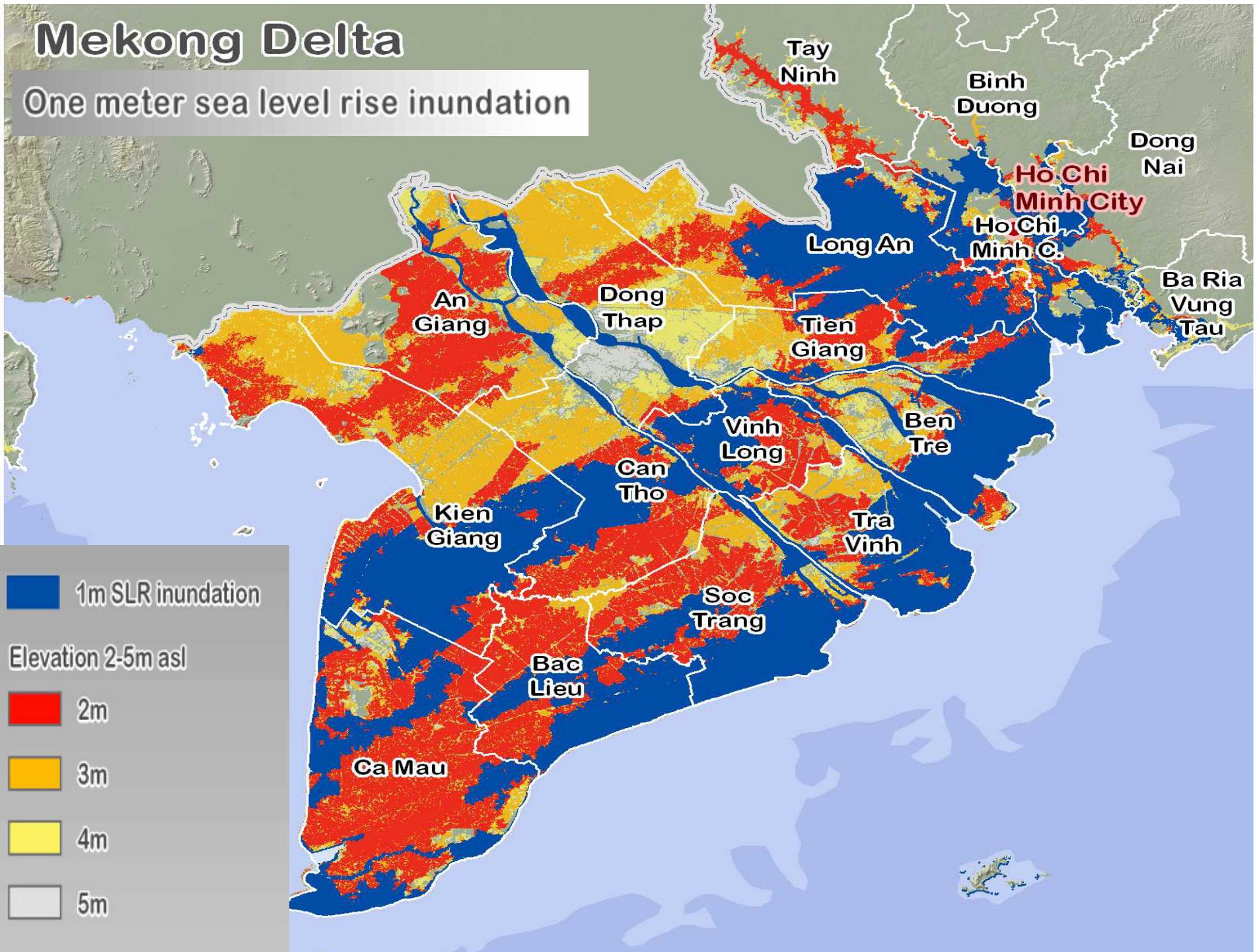
# Mekong Delta

Before sea level rise

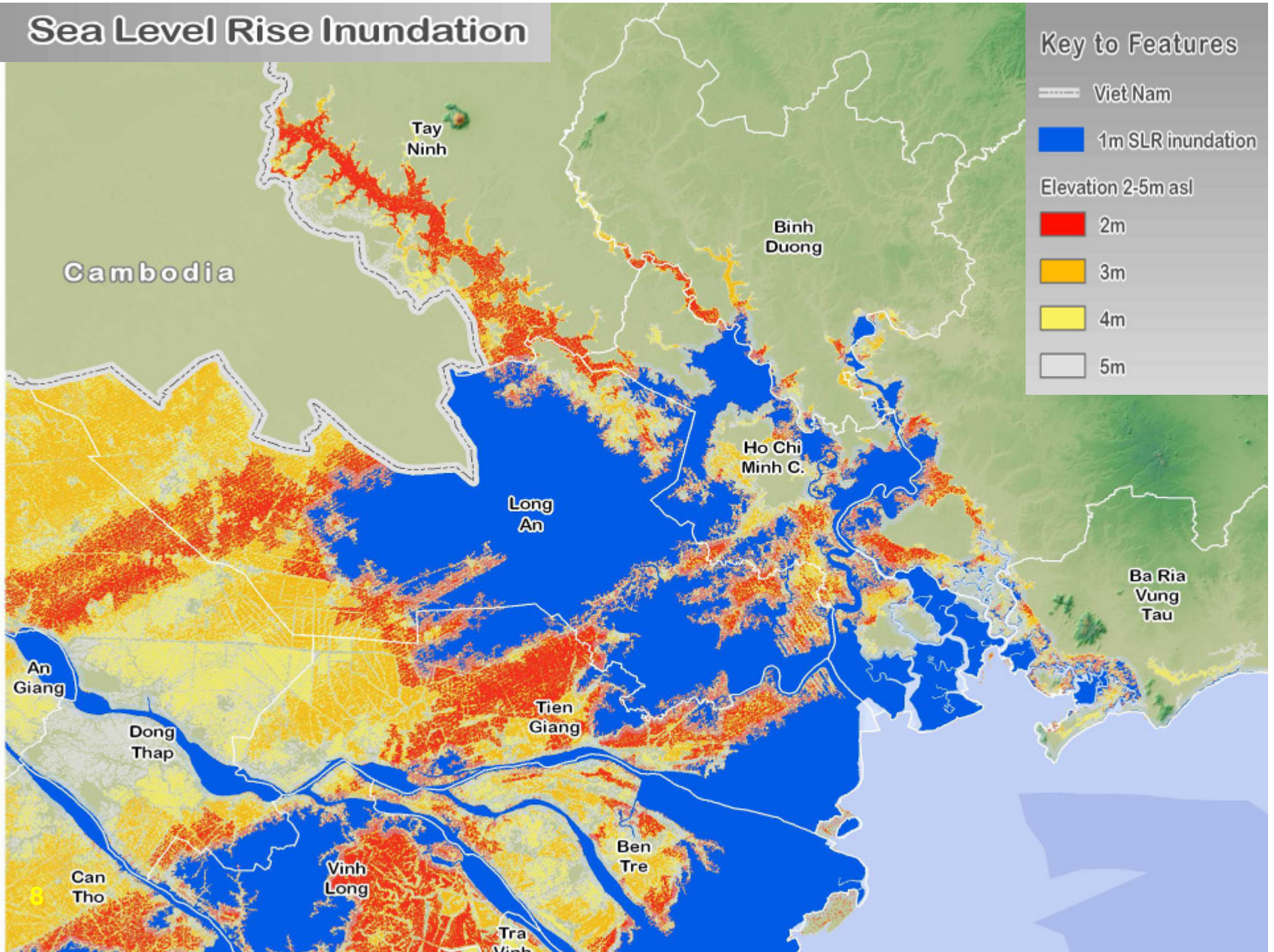


# Mekong Delta

One meter sea level rise inundation



# Sea Level Rise Inundation



# Poverty in the Study Area

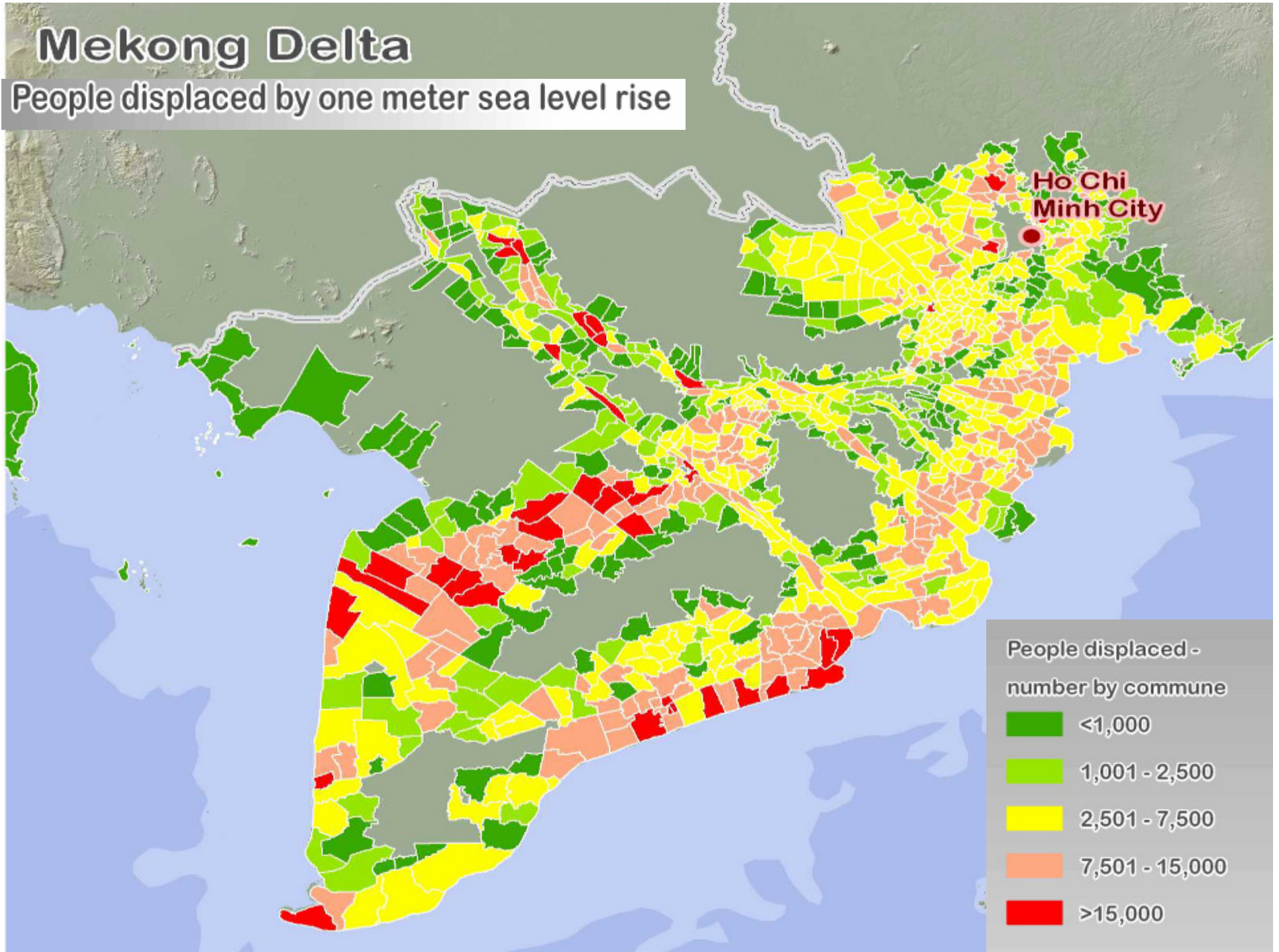
- Large impoverished populations reside in areas with anticipated high sea-level rise indices & inundation
- 90% of affected poor from climate change in the Mekong Delta Region
- Number of poor in the most affected areas are projected to increase from 21.2% to 30-35% by 2010
- Considerably more poor people will be exposed to worsening conditions

## Poor affected by a 1M SLR in Vietnam's portion of Mekong delta (if no adaptation)

Province	Number of poor	% of total affected poor people nationally
An Giang	50,563	3.1
Bac Lieu	110,818	6.7
Ben Tre	245,310	14.8
Ca Mau	69,614	4.2
Can Tho	118,875	7.2
Dong Thap	71,011	4.3
Kien Giang	101,964	6.2
Long An	198,812	12.0
Soc Trang	133,798	8.1
Tien Giang	121,743	7.3
Tra Vinh	139,597	8.4
Vinh Long	123,595	7.5
<b>Total</b>	<b>1,485,700</b>	<b>89.7</b>
<b>Ho Chi Minh City</b>	<b>48,567</b>	<b>2.9</b>

# Mekong Delta

People displaced by one meter sea level rise



# Assessment of threats, impacts and adaptation options in the Study

An assessment of the **direct impacts** on:

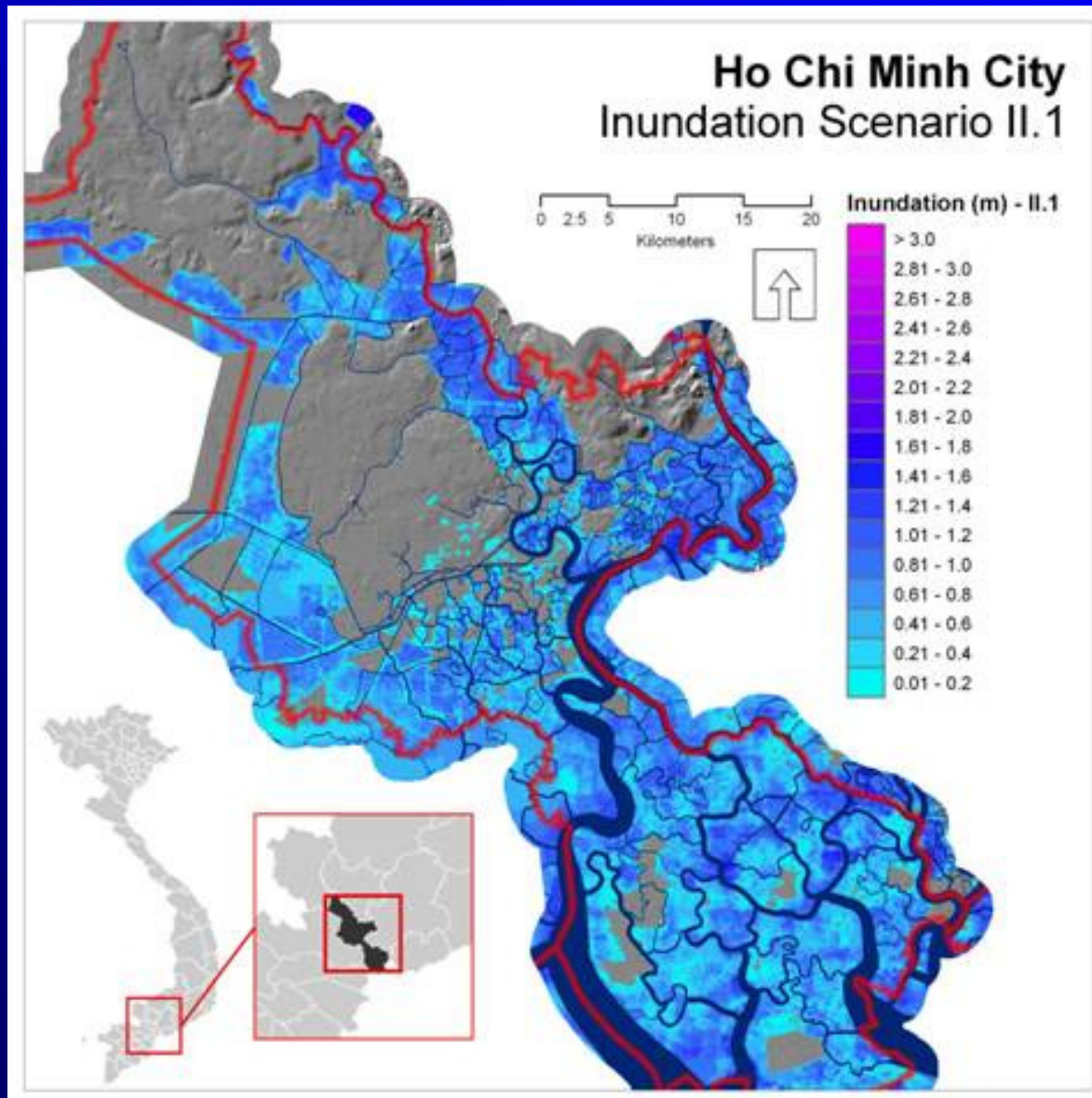
**Economic assets:** Industrial assets, transport and energy infrastructure (roads, railroads, ports, airports, power plants, agricultural and aquaculture/fisheries, tourism assets)

**Social variables:** population affected, livelihood/income types most affected, poor communities affected

**Environmental assets:** Freshwater resources affected, forest resources affected, fish resources affected, biodiversity lost

**Environmental quality:** (i) Areas affected by salinization, and (ii) areas affected by wastewater/pollution

# Phase II – More Detailed Analysis



**Downscale IPCC Scenarios**

**+**

**Use 1:5,000-25,000 maps**

**+**

**Conduct socio-economic  
surveys**

**+**

**Overlay socio-economic and  
land use plans**

**+**

**Overlay expected  
adaptation actions and land  
use plans**

**=**

**practical tool for improving  
sustainability of HCMC and  
addressing one of their top  
priorities: poverty reduction**

# **ADB's Adaptation Program**

**Incorporating Vulnerability  
Risks into Country Partnership  
Strategies.**

**Adjusting Sector Strategies to  
Climate Change Impact  
Realities**

**Screening of  
Pipeline Projects**

**Social  
Dimensions**

# Looking forward: Priority Areas

- **Climate proofing:** Portfolio at risk and screening of future projects for their “climate proofing” needs
- **Country strategies:** Incorporating climate change vulnerabilities into ADB’s country-level strategies
- **Sector analyses:** agric/natural resources, transport, energy, urban development
- **Vulnerable areas** pilot actions:
  - Low-lying islands (SIDS)
  - Arid and semi-arid areas
  - Coastal mega-cities and mega-deltas
- **Vulnerable people** research:
  - Climate change migrants
  - Gender, age, ethnicity and health
- **Staff capacity:** In-house and counterpart training and awareness raising
- **Adaptation Financing:** ADB Climate Change Fund 40M, ADB Small Grants for Adaptation Funds 1.2 M, Climate Investment Funds TBA, and GEF Funds TBA.