Climate-fragility Risks in Asia and Related Development Nexus

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Outline

- What are climate-fragility risks?
  - Background
  - Theory
- Climate-fragility risks in Asia
- The case of Japan
- Study findings from IGES
- Way forward and conclusions

Background

- **Mandate:**
  - Analyse climate–fragility risks and identify possible responses
  - Build a knowledge platform for the community of practice on climate–fragility risks
- **2015: G7 foreign ministers discussed and welcomed the report and tasked a high–level working group to:**
  - evaluate the recommendations of the report
  - initiate concrete steps towards preventative action
- **2016: G7 foreign ministers reaffirmed their commitment to prioritize prevention of climate–fragility risks**

IGES-adelphi Research on CFRs

- Events
  - One day expert meeting consultation
  - Half day briefing session with civil society/academics
  - A public symposium at ISAP 2016
  - Half day briefing session with government
- Outputs
  - Climate-fragility Risks in Asia: The Development Nexus
  - Climate-fragility Risks in Japan and the Asia-Pacific region
  - Climate-fragility Risks in Japan: Some Initial Reflections
  - Foreign Policy Implications of Climate-fragility Risks for Japan
  - Climate and Fragility Risks in Japanese Development Cooperation: Implications of Adaptation and Peacebuilding Experiences
  - Climate-fragility Risks - The Global Perspective

Importance to Fragility Risks: G7 Foreign Ministers' Meeting, Hiroshima, Japan

- "We reiterate that climate change poses a serious threat to **global security** and economic prosperity and shared the view that foreign policy must contribute to addressing this challenge effectively."
- "We will work to prioritize prevention of **climate fragility risks** by aligning our efforts toward the common goal of **increasing resilience and reducing fragility** in the face of global climate change, including taking steps to integrate climate-fragility considerations across our national governments."

Source: Joint Communique of G7 Foreign Ministers' Meeting, 2016

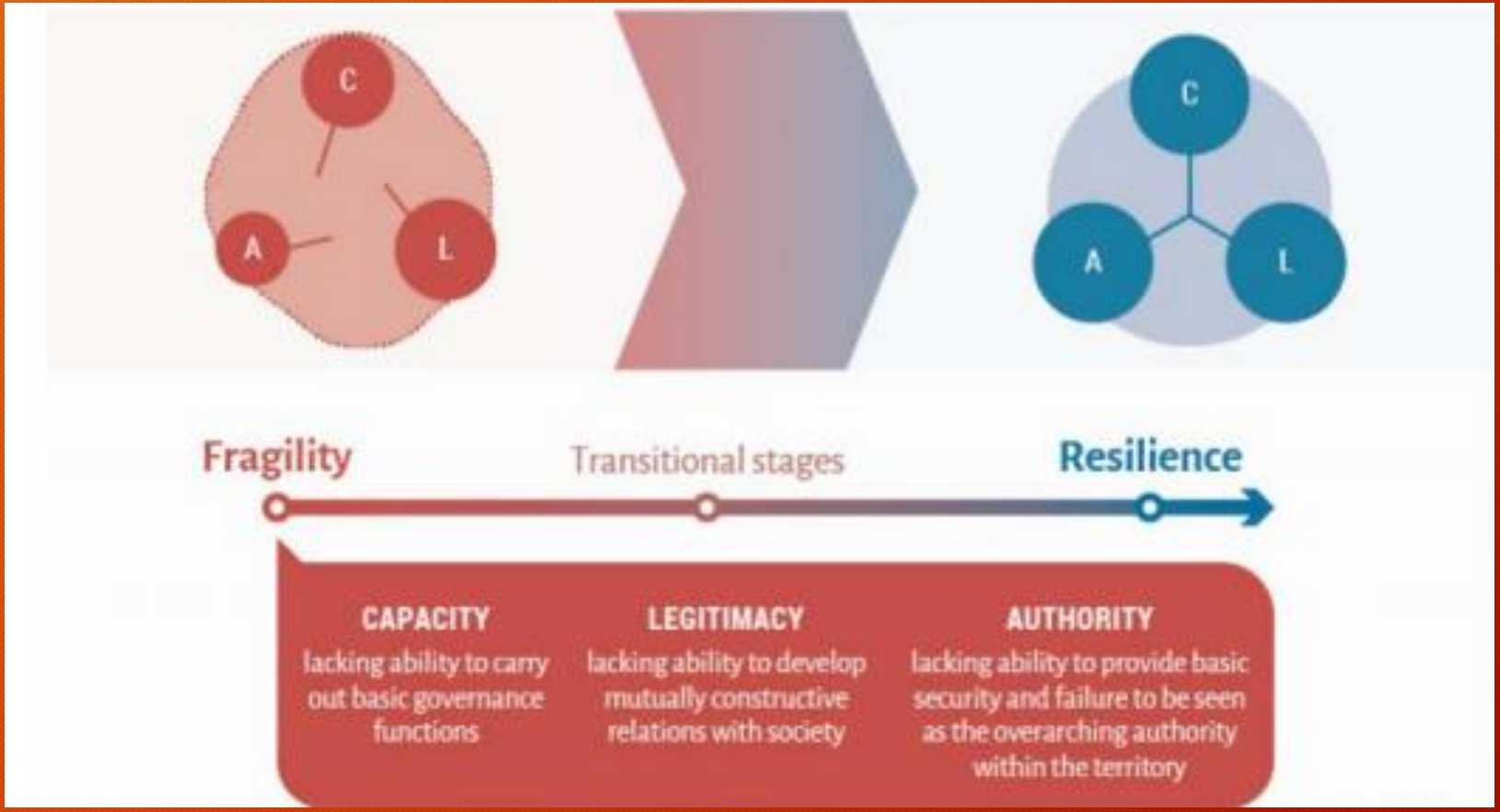
G7 Roundtable Seminar with MOFA

G7 Roundtable Seminar with MOFA

- Identifying visible examples/Case studies
- More in-depth research on political/economic and social dimension of regions/countries
- More specified modelling
- Improved information flow and sharing among stakeholders
- Cautious approach in over-emphasizing the climate fragility risks

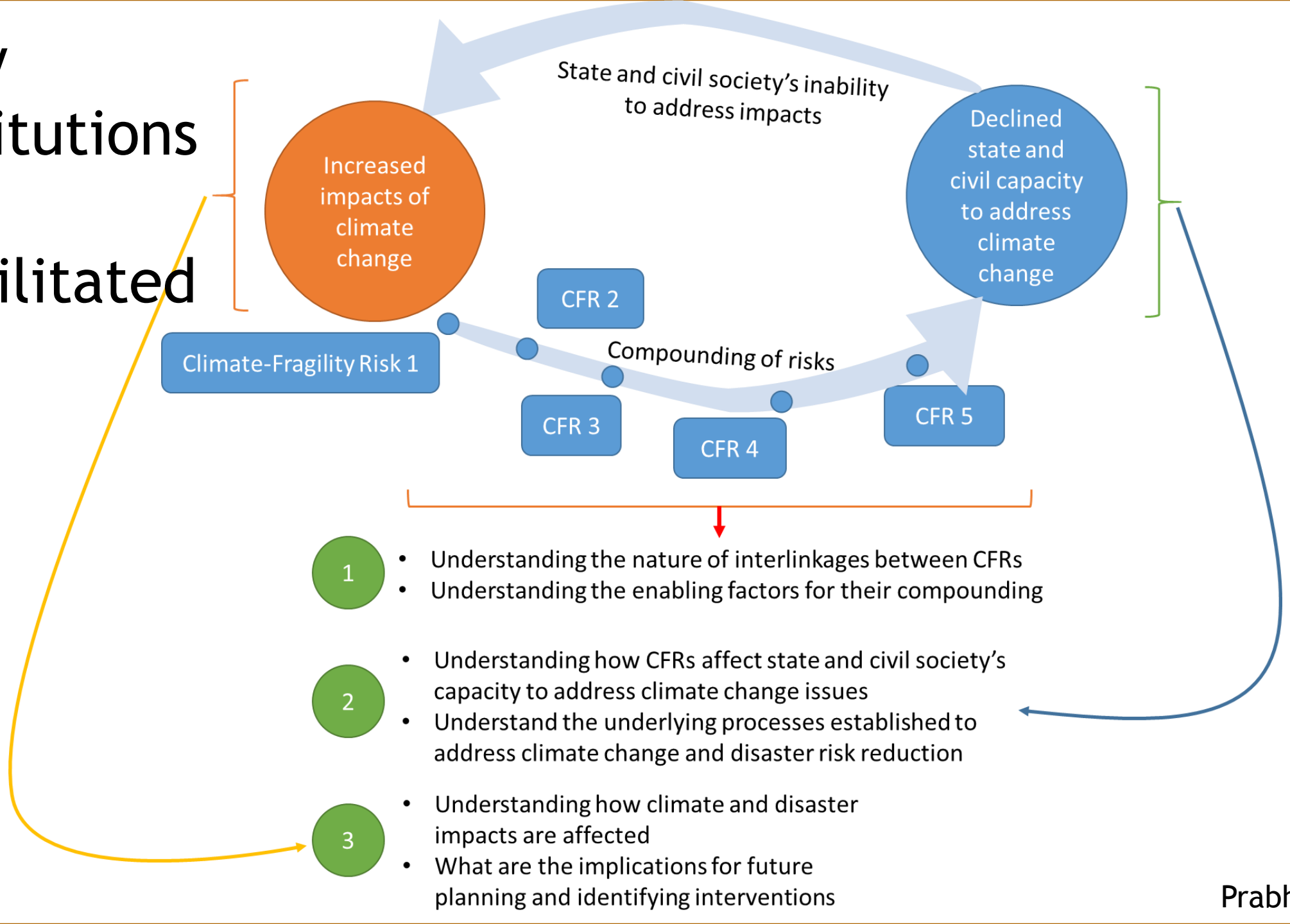
What is Fragility?

Fragility refers to “the quality of being easily broken or damaged”



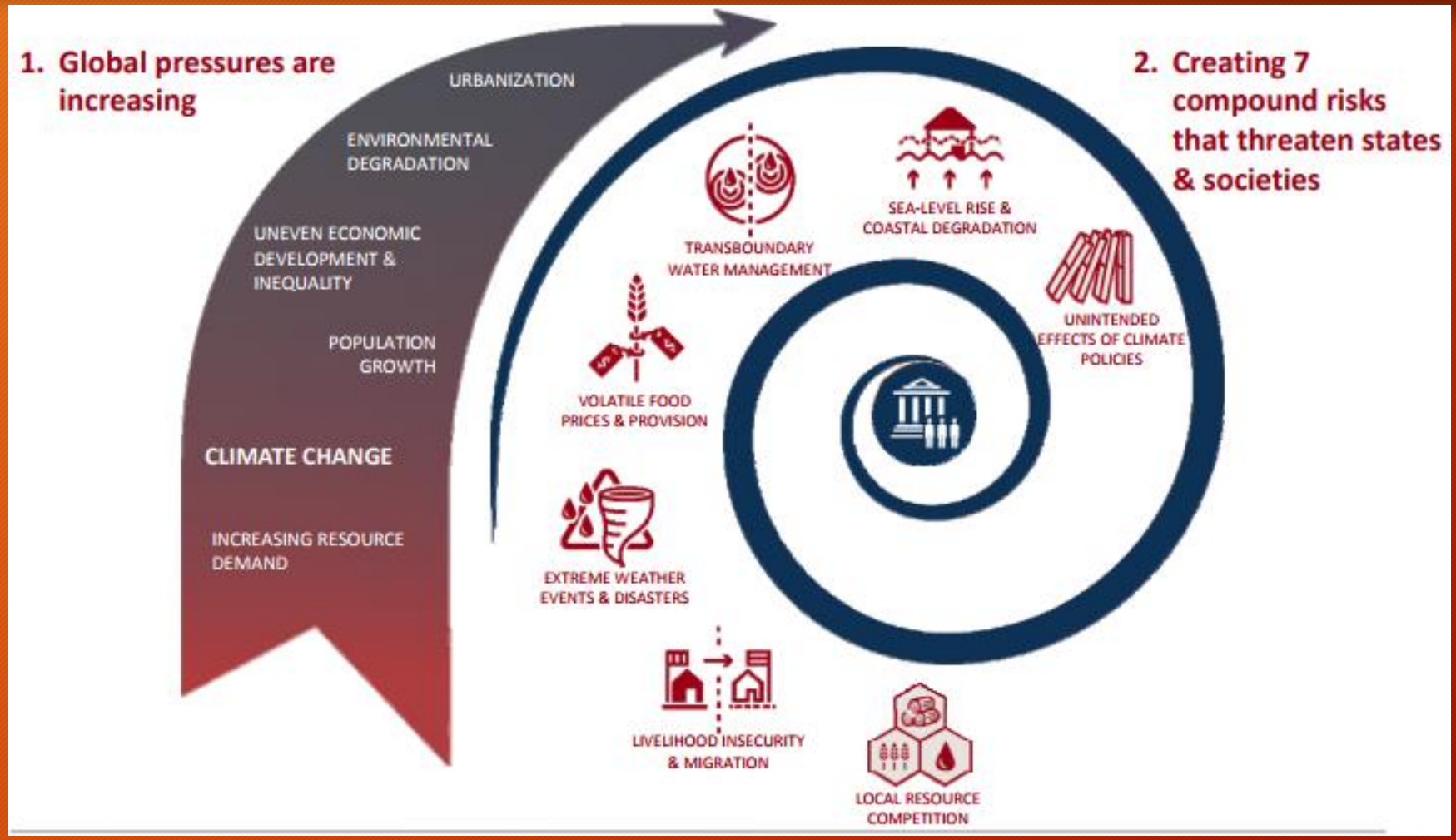
Adelphi, 2015

How Institutions are Debilitated ?



Prabhakar, 2017

Compound Climate Fragility Risks



Adelphi, 2015

Climate Fragility Risks

- Emerge through the interaction of climate change with other pressures and stressors
- They can contribute to different situations of fragility:
  - Political unrest and instability
  - Local conflicts and violence
  - Civil war and large-scale conflict
  - Transboundary disputes
- They can have regional and international impacts, for example through conflict spill-over or migration

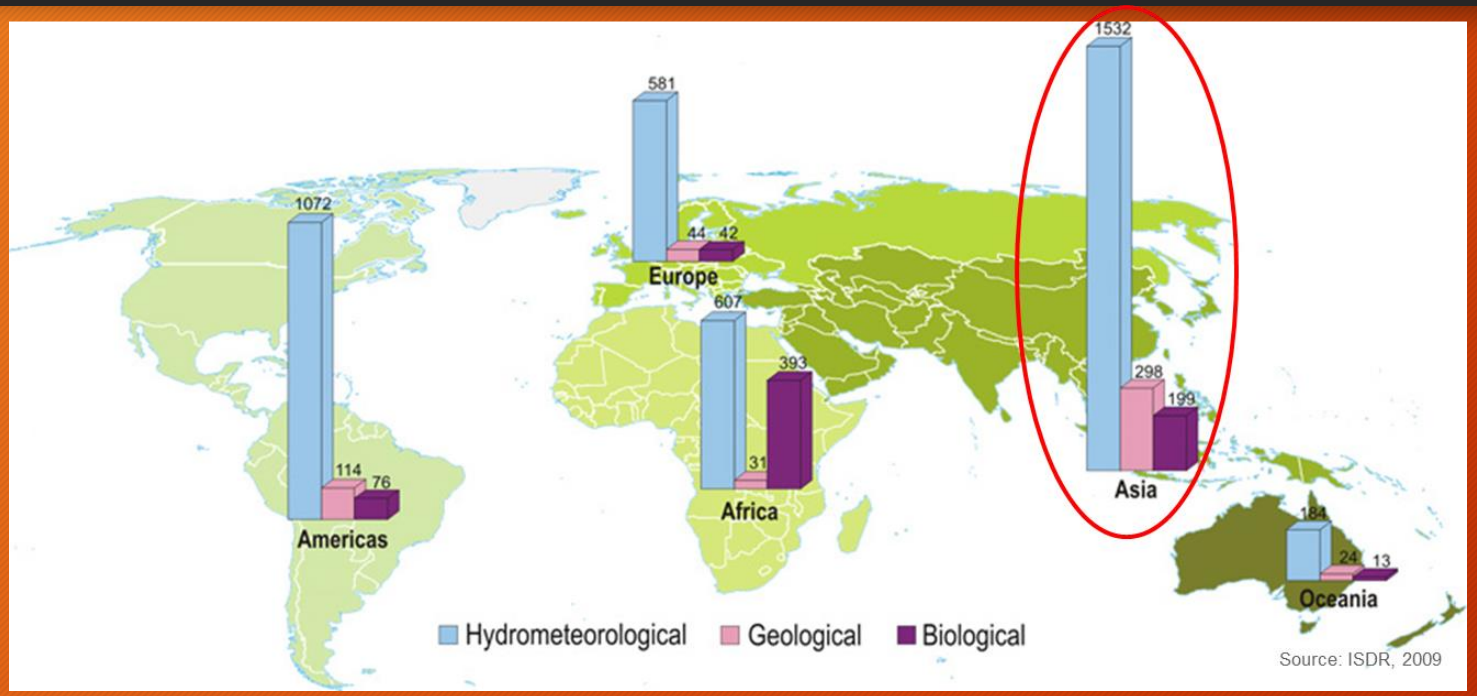
Adelphi, 2015

The Current Situation of Major Fragility Risks in Asia

1. Development-disasters nexus
2. Migration and related conflicts
3. Food price fluctuations
4. Transboundary resource conflicts: Water
5. Unintended effects of climate policies
6. Sea level rise and coastal degradation
7. Competition for local resources

8. Japan’s case of CFR

1. Development-Disasters Nexus

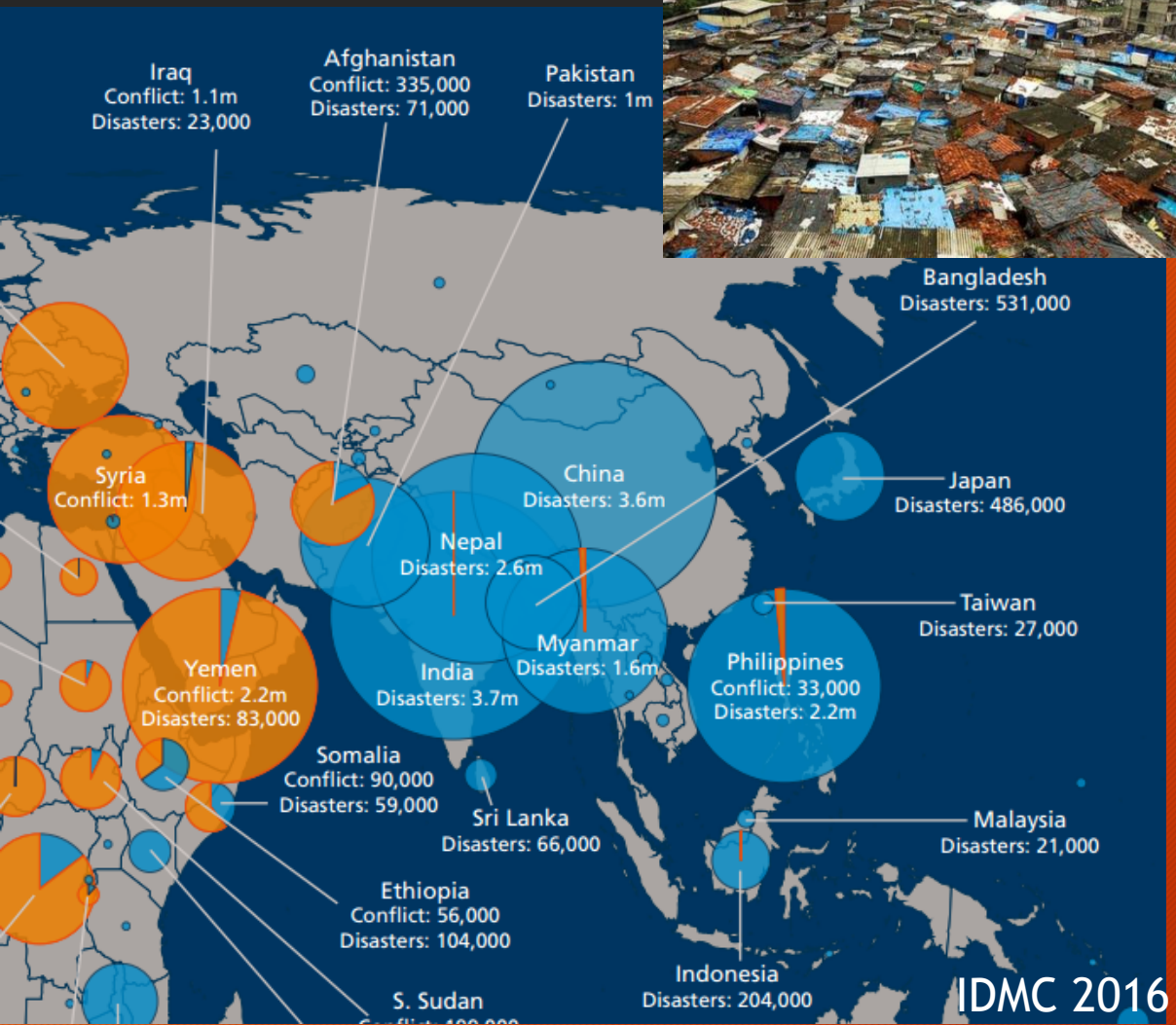


- Asia is characterized by high exposure to natural hazards compared to Americas and Europe put together.
- The nexus between developmental deficit and natural disasters is clearly visible in poorer countries as indicated by high fatalities in identical events.

Country	GDP per capita (USD)	Population (million)	Number of typhoons	Fatalities	Fatalities per event
Japan	38,160	126	13	352	27
Philippines	1,200	74	39	6,835	175
Bangladesh	360	124	14	151,045	10,788

Source: Mechler, 2004

2. Internal Displacement and Related Conflicts



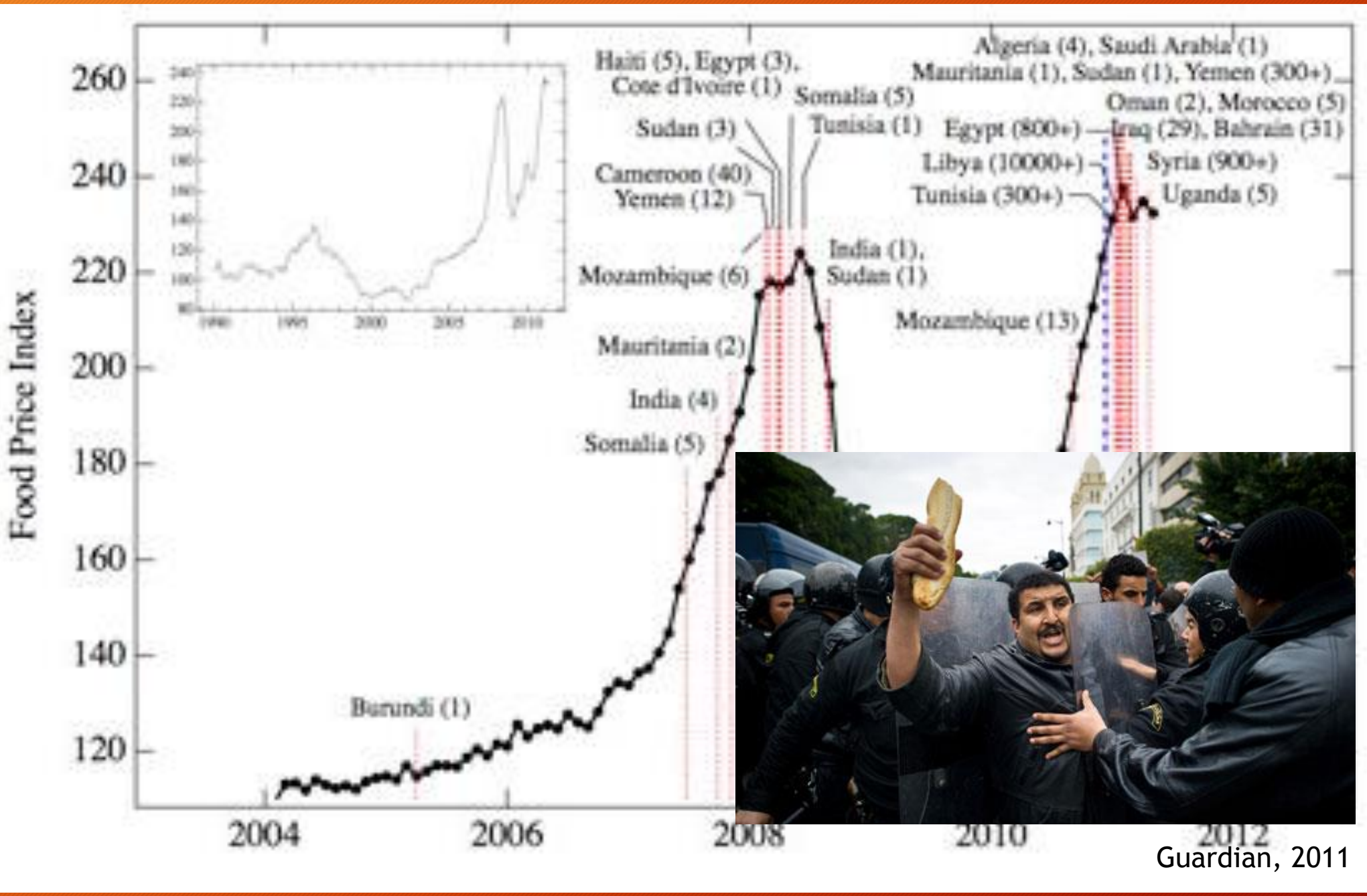
- The number of internally displaced people are continuously rising in Asia.
- While natural disasters are the number one reason, factors such as internal conflict, state failure to provide gainful employment and developmental services are major hidden reasons.
- Despite this, we have not seen strong policy focus for arresting cross-border migration and internal displacement.
- If not addressed, the internal displacement could exert unsustainable pressure on local resources and can have significant impact on social fabric and security.

3. Food Price Fluctuations

FAO 2016

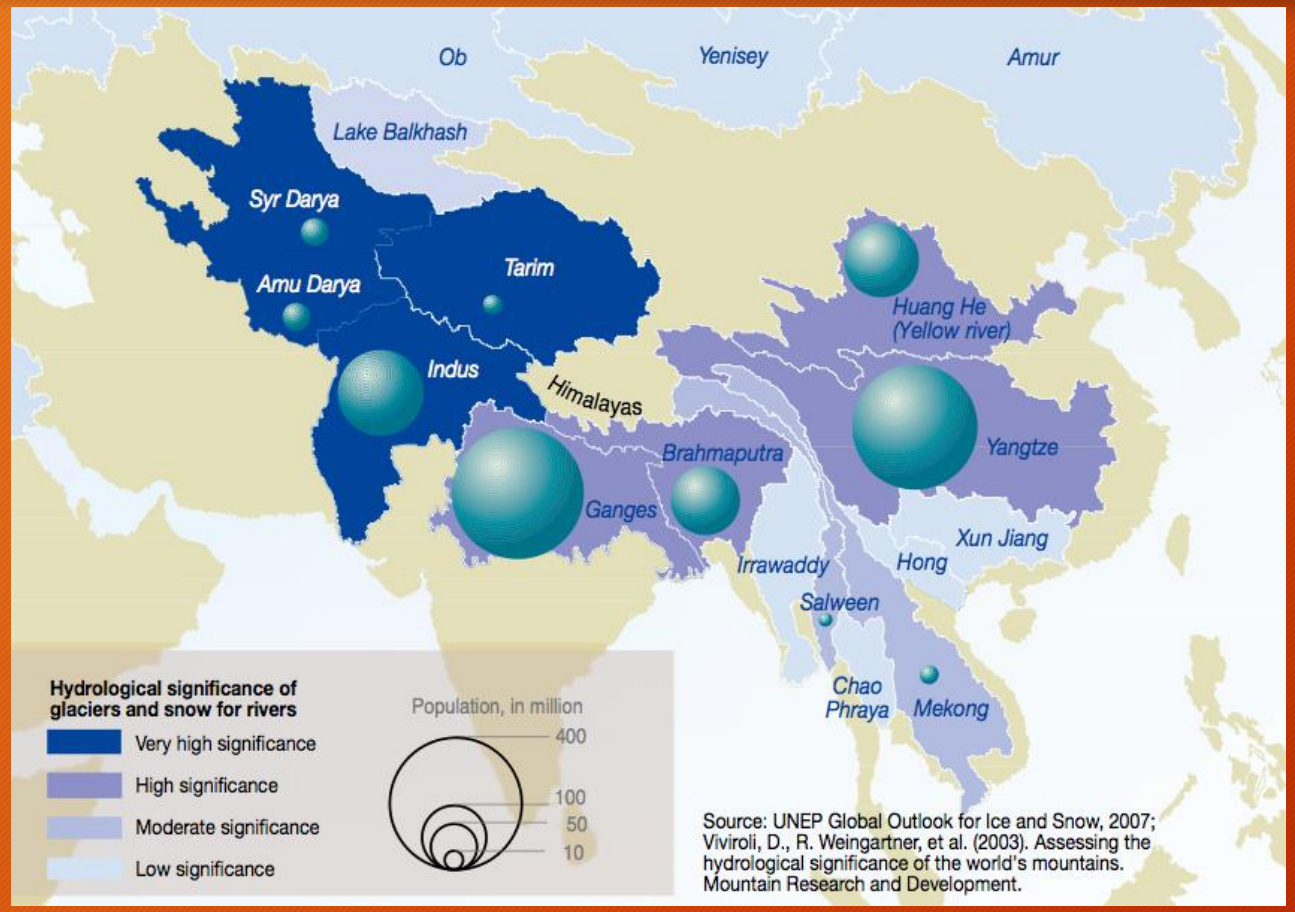
1. Instance of 10-15% decline in food consumption (15-20% increase in food expenditure) in 50-70% of poor households from 2007 to 2008 (WFP 2009), food riots and poverty.
2. Impact on food security: poorer section of the urban population (casual and unskilled labourers)
3. Impact on livelihoods: petty traders, labourers and peri-urban agriculturists

How to forecast such global price fluctuations and prepare for the food shortage and related consequences?



Guardian, 2011

4. Transboundary Resource Conflicts: Water

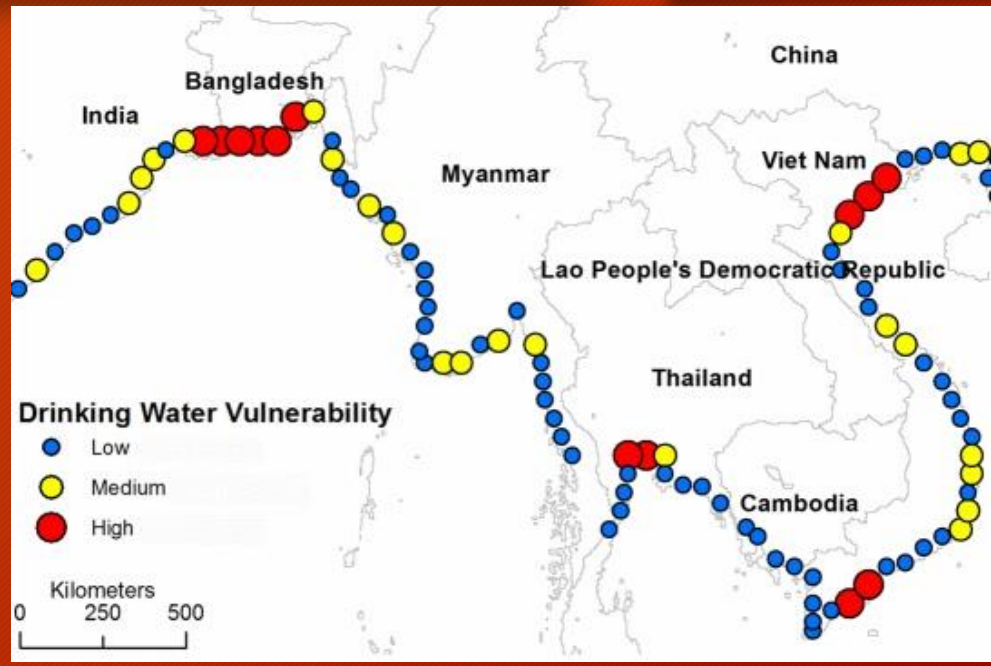


- Asia is characterized by large river basins that are often transboundary in nature.
- Resource conflict across boundary is on the rise in the region especially in Central, South and East Asia.
- Regional processes such as SAARC and MRC are less than successful in addressing these conflicts.

It is an issue of sustainably managing our global, regional and local commons for mutual benefit!

5. Other Fragility Risks

- Unintended effects of policies
  - Barind groundwater project in Western Bangladesh resulting in alarming groundwater depletion and raised concerns for arsenic contamination
- Sea level rise and coastal degradation
  - Salt water intrusion vulnerability is high in South and East Asia (e.g. Viet Nam nexus between drought and salt water intrusion)
- Competition for local resources
  - Disputes among states within a country: e.g. Indian rivers Kaveri and Krishna shared between states of Tamil Nadu, Karnataka and Andhra Pradesh have been under dispute for several years
  - Disputes along the course of canal waters are on the rise



(Khan et al 2011)

CFR Implications for Japan

- Competition for resources: Fisheries
- Climate change impacts and impact on food security
- Disaster assistance and diplomacy

Competition for Fish Resources

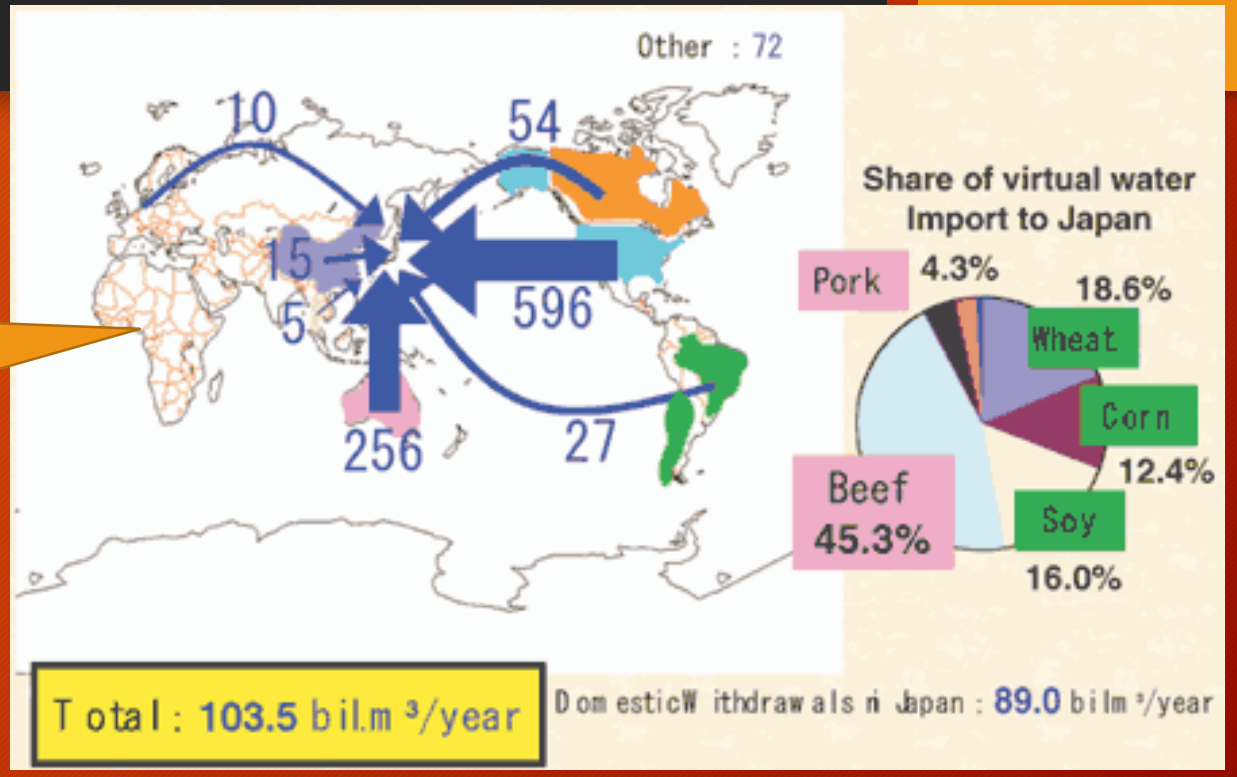
- Rising temperature of sea water
- Japanese fishermen going extra miles to catch fishes resulting higher price for ordinary households

Neighbors getting rich and catch fish in large quantity in nearby seas resulting competition to resources

Nishimura 2017

Japan's CFR as a Function of Food Dependency

Japan's meat and other imports are possible due to abundant water overseas….



- Countries are increasingly dependent on water resources of other countries.
- Japan's food imports could be at risk should climate related water stress affect US, Canada, Australia, Brazil etc.
- Japan's food security could be at risk due to competition from countries like China and India etc

Making Sense of Fragility Risks: Climate-Fragility Index

Indicator	Proxy indicator	Rationale and limitations	Source
Local competition for water	Baseline water stress	The higher the water stress the higher the competition around water. However, water stress may not always lead to tensions and conflict depending on the local governance and social systems which are represented by the governance indicator of the World Bank.	WRI, 2016
Extreme weather events	Climate risk index	Climate risk index is the most comprehensive risk index covering climatic hazards and has been regularly produced for most countries.	Germanwatch, 2016
Migration and internal displacement	% of population affected by migration and internal displacement	The data provided by the Internal Displacement Monitoring Centre gives a clear picture of the number of internally displaced and migrants. These numbers were converted into % of population.	IDMC, 2015
Food price volatility		Food price volatility was calculated as a standard deviation of principal food crop prices in the past decade in local currency.	FAOSTAT, 2016
Sea level rise (SLR)	% of population affected by SLR	% of population affected by SLR reflects social and economic impacts better than the mere change in SLR.	Climate Central, 2015
Unintended effects of policies	World Bank Regulatory Quality indicator	There are no verifiable measures for unintended effects of policies yet; however, the World Bank Regulatory Quality indicator provides a close assessment for policy effectiveness, assuming that least unintended effects of policies are expected with higher regulatory quality.	World Bank, 2016

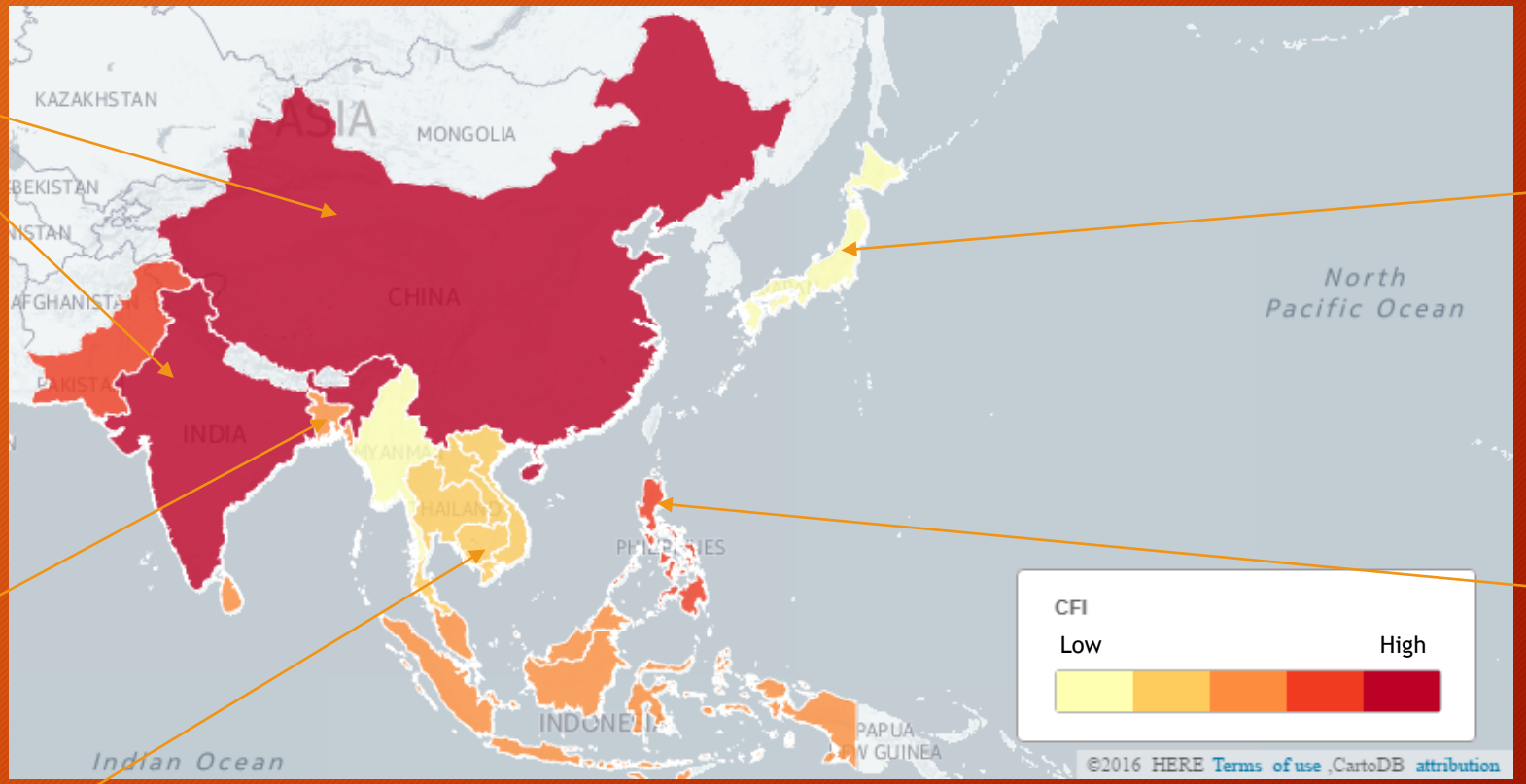
Source: Prabhakar et al., 2016

Comparison of Countries on Fragility Risks: Climate-Fragility Index (CFI)

Salt intrusion, water conflicts and internal displacement

Internal displacement and high price volatility

High climate risks, price volatility

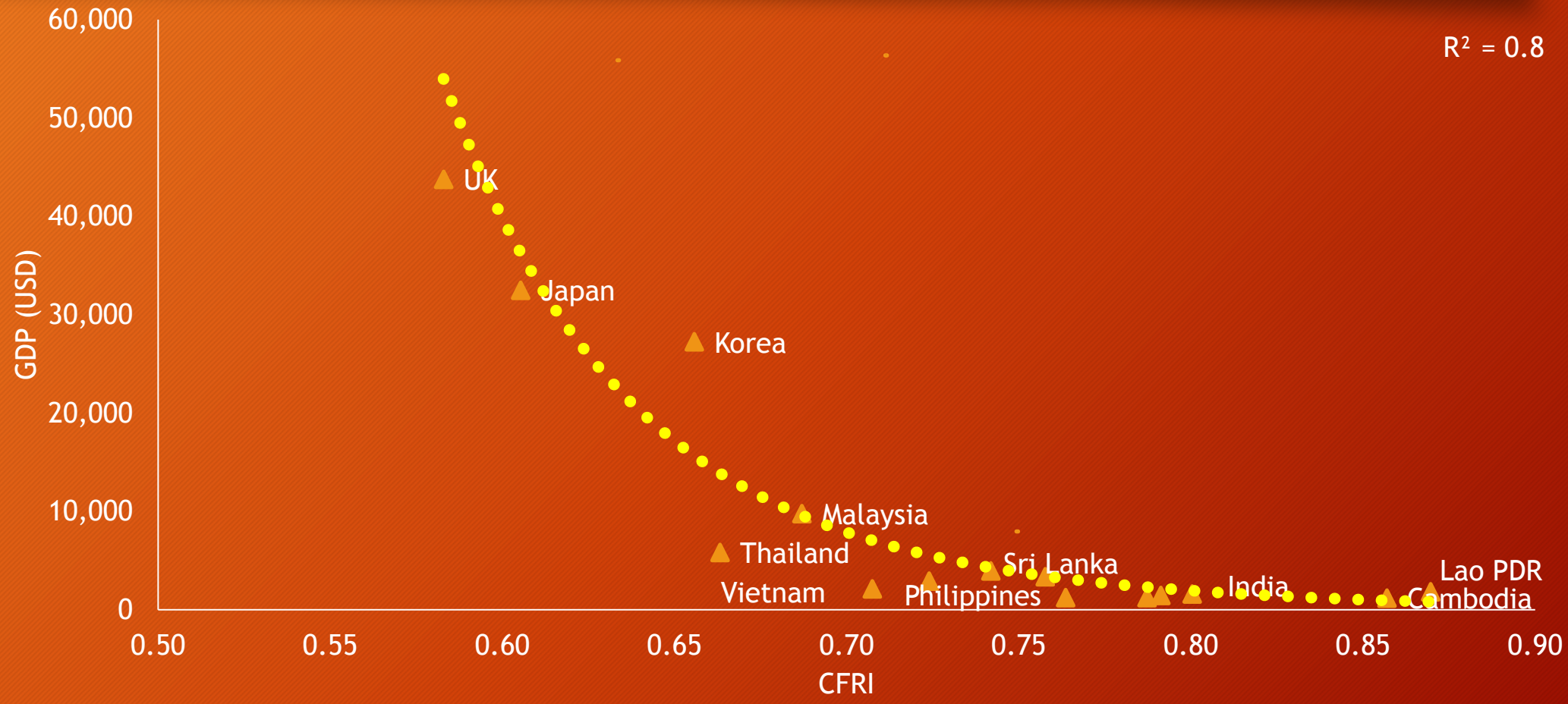


Extreme events, competition for resources and demographic issues

Internal displacement and internal conflicts

Source: Prabhakar et al., 2016

The Development Nexus

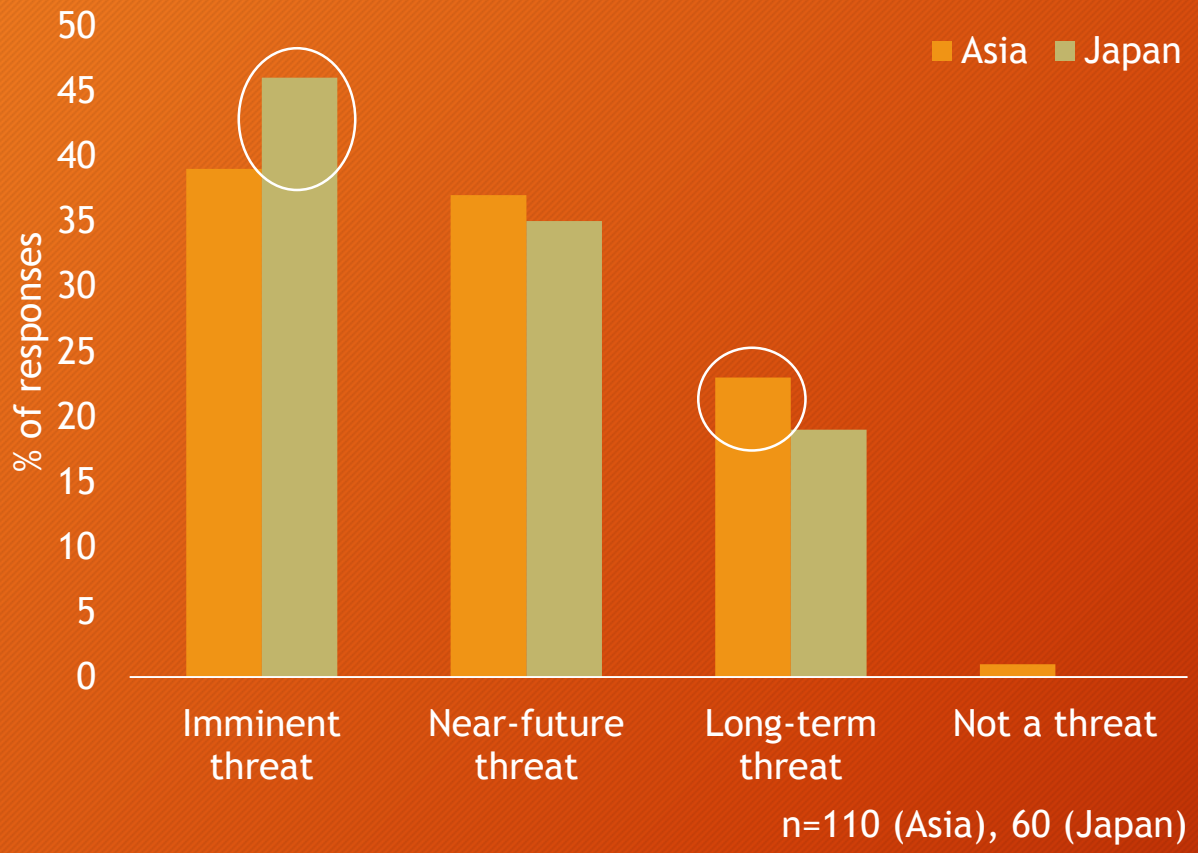


Prabhakar et al 2016

Online Survey on Climate-Fragility Risks

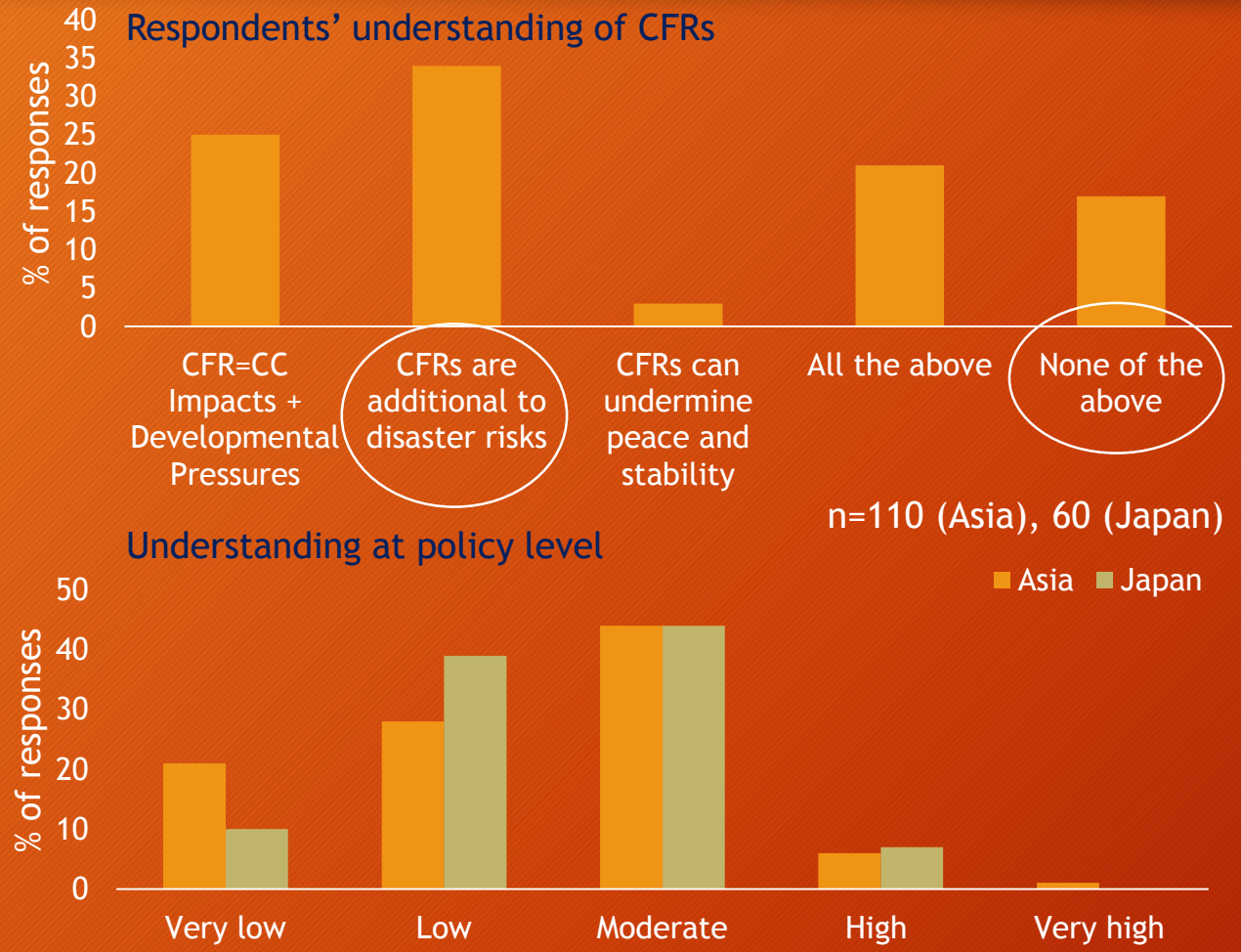
- **Purpose:** To understand the current state of knowledge and policy issues for addressing climate-fragility risks in Asia.
- **No of responses in Asia:** 110 from 22 countries (India, Philippines, Bangladesh, Vietnam, Thailand, Indonesia, China, Malaysia, Nepal, Sri Lanka and Pakistan).
- **No of responses in Japan:** 60
- **Occupational Background:** Universities, NGOs, Governmental bodies and think tanks. Most have expertise in CCA, DRR, environment and SD. and have worked at community and national levels (Asia) or at national and international levels (Japan).
- **Prevalent age group:** 30-40 (56%, Asia) and 50-60 (28%, Japan)
- **Prevalent gender:** Male (68% Asia, 73% Japan)

Is Climate Change an Imminent Threat?



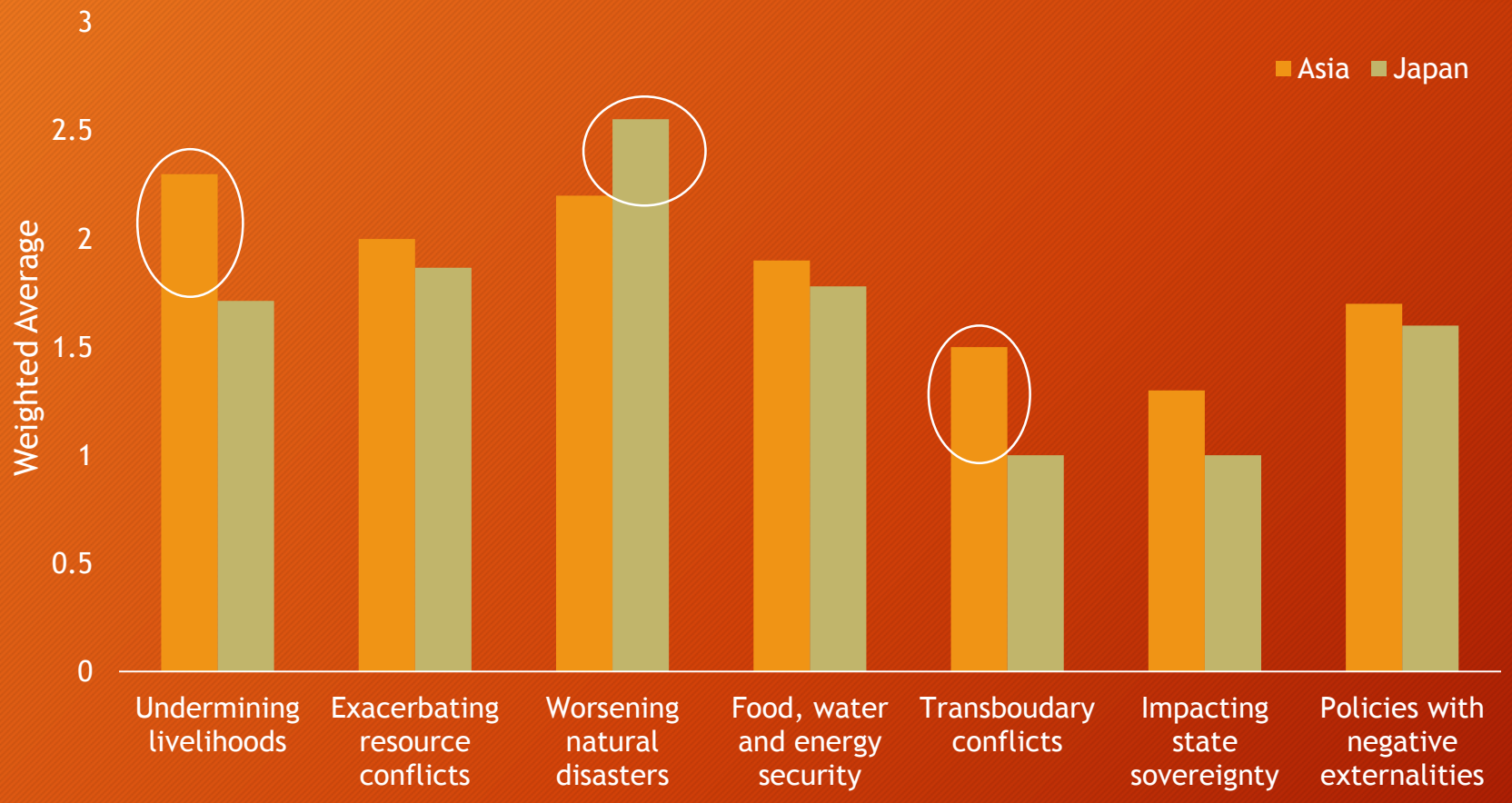
- Marginally more respondents from Japan thought climate change is an imminent threat than respondents from rest of the Asia
- Major cause of concerns, irrespective of developmental state of countries, in the region are natural disasters, water security and food security (Energy security is third most important concern to Japanese)

How do you Understand CFRs?



- Significant number of people thought CFRs are additional to disaster risks and hence should be dealt outside the framework of disaster risk reduction.
- Very few respondents thought CFRs can undermine peace and stability of countries.
- Significant number of respondents did not agree to the options provided or agreed to conflicting choices.
- Policy makers in Japan are rated relatively better than in rest of the Asia for their understanding of CFRs.

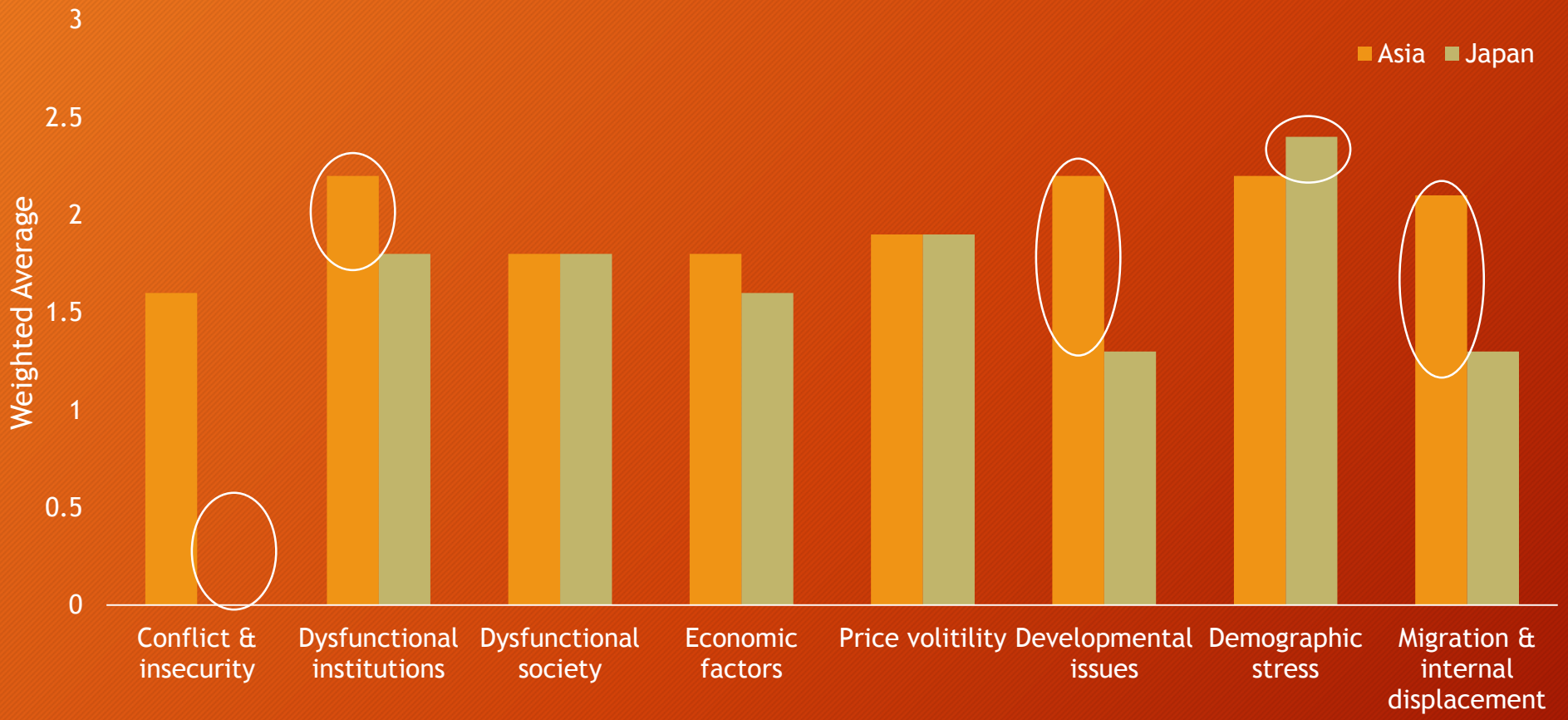
What are the Impacts of Climate Change with CFR Implications in the Region?



n=110 (Asia), 60 (Japan)

- In developing countries, climate change influences through its impacts on livelihoods followed by natural disasters and resource conflicts.
- In Japan, climate change could exacerbate fragility risks through impacting natural disasters followed by conflict for resources and food, water and energy security.

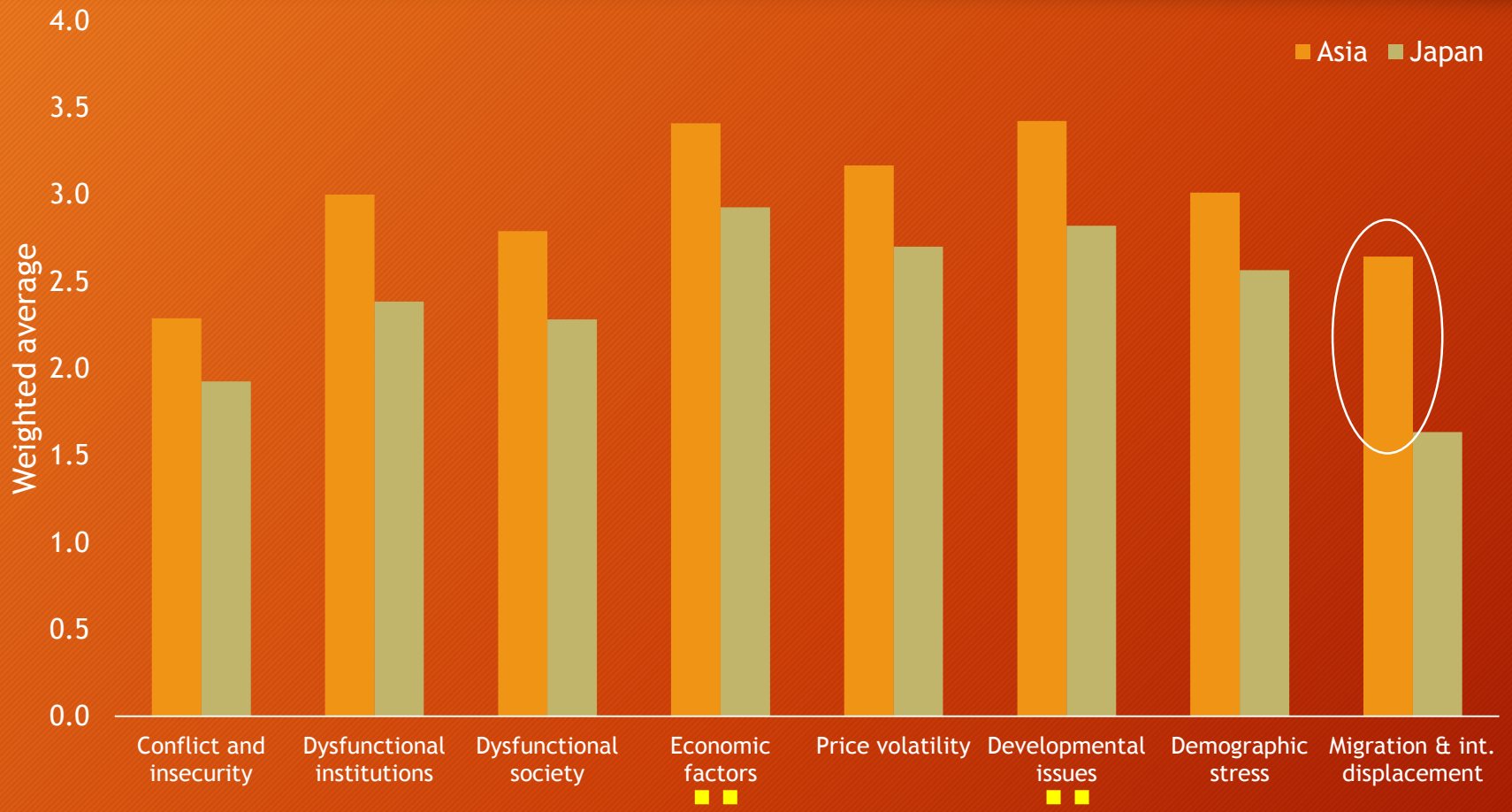
What are the Major CFRs in the Region?



n=110 (Asia), 60 (Japan)

- Rapid demographic changes have economic and environmental implications and policies often do not address demographic changes

What Policy Areas Need to be Improved for Addressing CFRs?



n=110 (Asia), 60 (Japan)

- In Asia, national policies need a significant improvement for addressing conflict and insecurity issues, migration and internal displacement and dysfunctional society which are rated poorly compared to economic and developmental policies.
- In Japan, national policies need to address migration and internal displacement, conflict and insecurity and dysfunctional society

What Specific Measures are Required?

- There is a need to focus policies at all the levels. However, there is a disagreement on where they should be focused more. Responses in Asia preferred them to be focused at local level while Japanese wanted them to be focused at the national level.
- Urgent interventions are needed in developing integrated programs that foster resilience, better information that supports developing programs and policy coherence. In Japan, in-country collaboration received significant attention.

How to Address Fragility in a Project/Programmatic Context?

- Integrated approaches
- Fragility and conflict-sensitive approaches
  - to be incorporated at concept stage (understand local context)
  - to be used continuously during implementation
- Inclusive and participatory planning and implementation
  - to build country and local ownership and leadership
- Use existing flexible modalities and processes
- Long-term institutional capacity building
  - not only for the government, also for the community and social organizations

Safran, 2016

Integrated Approaches for Addressing CFRs

Often, climate change adaptation and peace and conflict are often dealt with separately

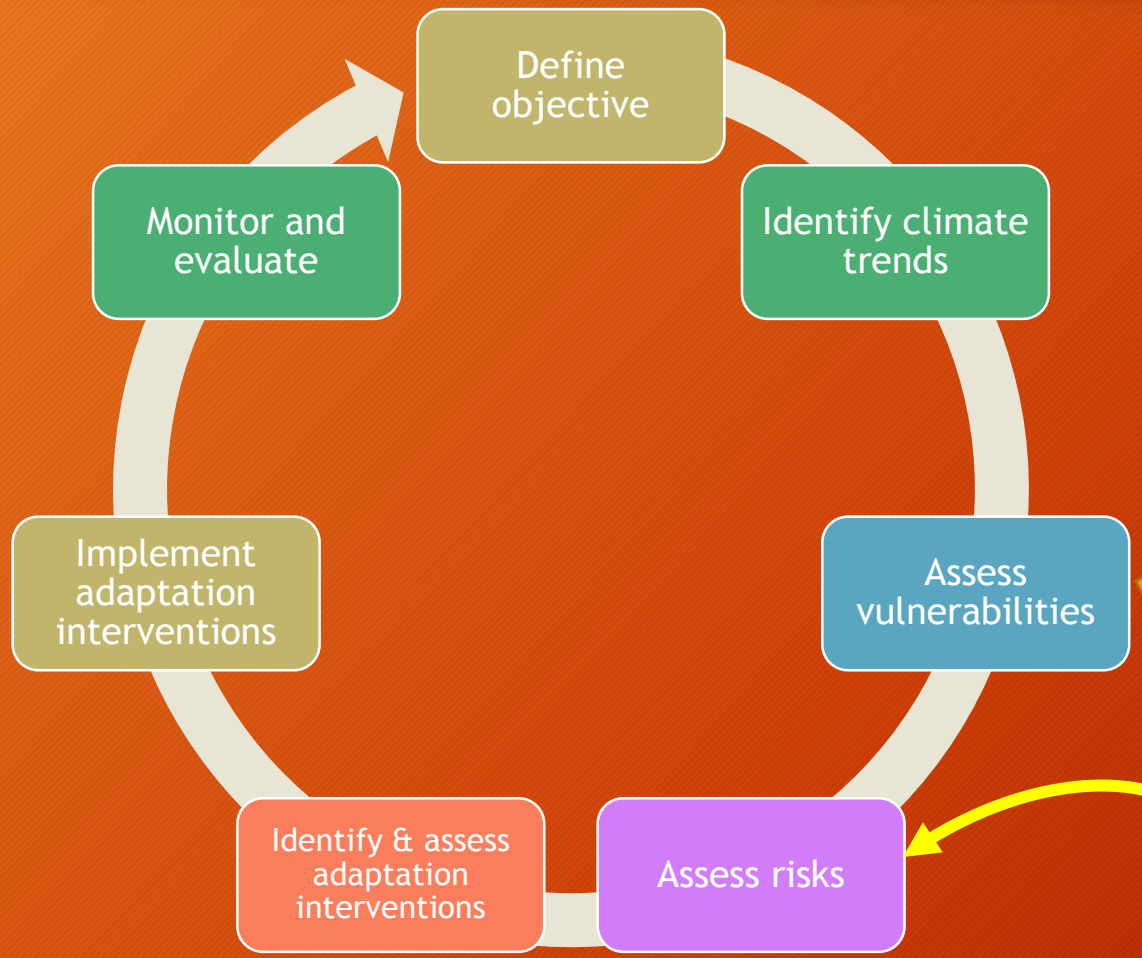
Adaptation

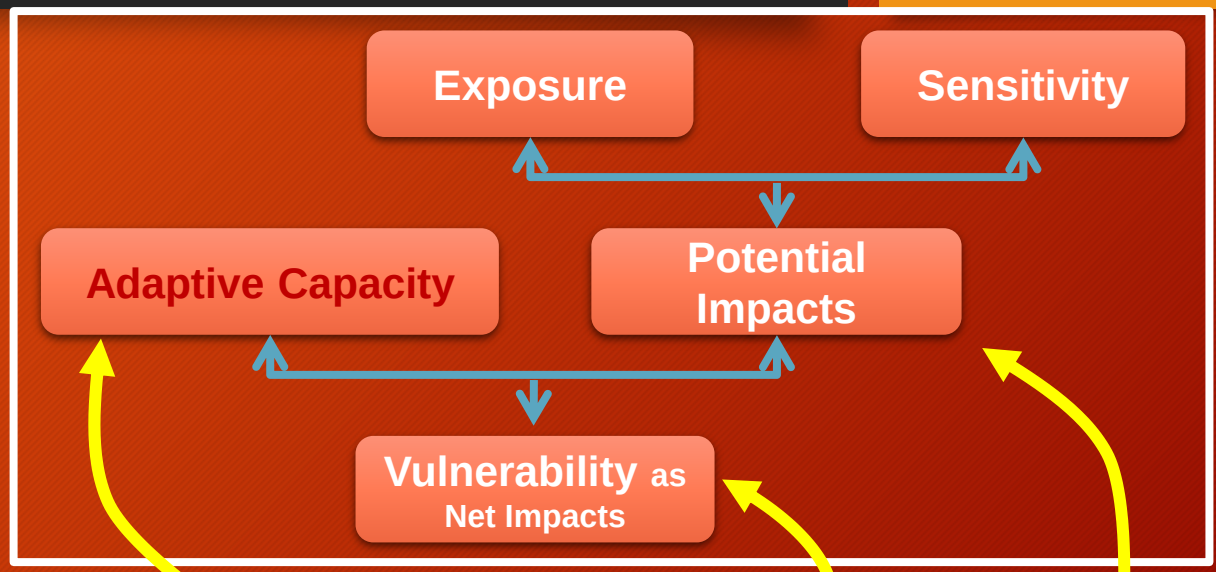
- Natural resource focus
- Technical interventions for livelihoods and focus on disaster risk reduction
- Social resilience interventions are on the rise
- Often aim at the long-term outcomes

Conflict and Peace

- Social interventions are of the priority
- Often short-term interventions
- Meeting immediate needs are priority

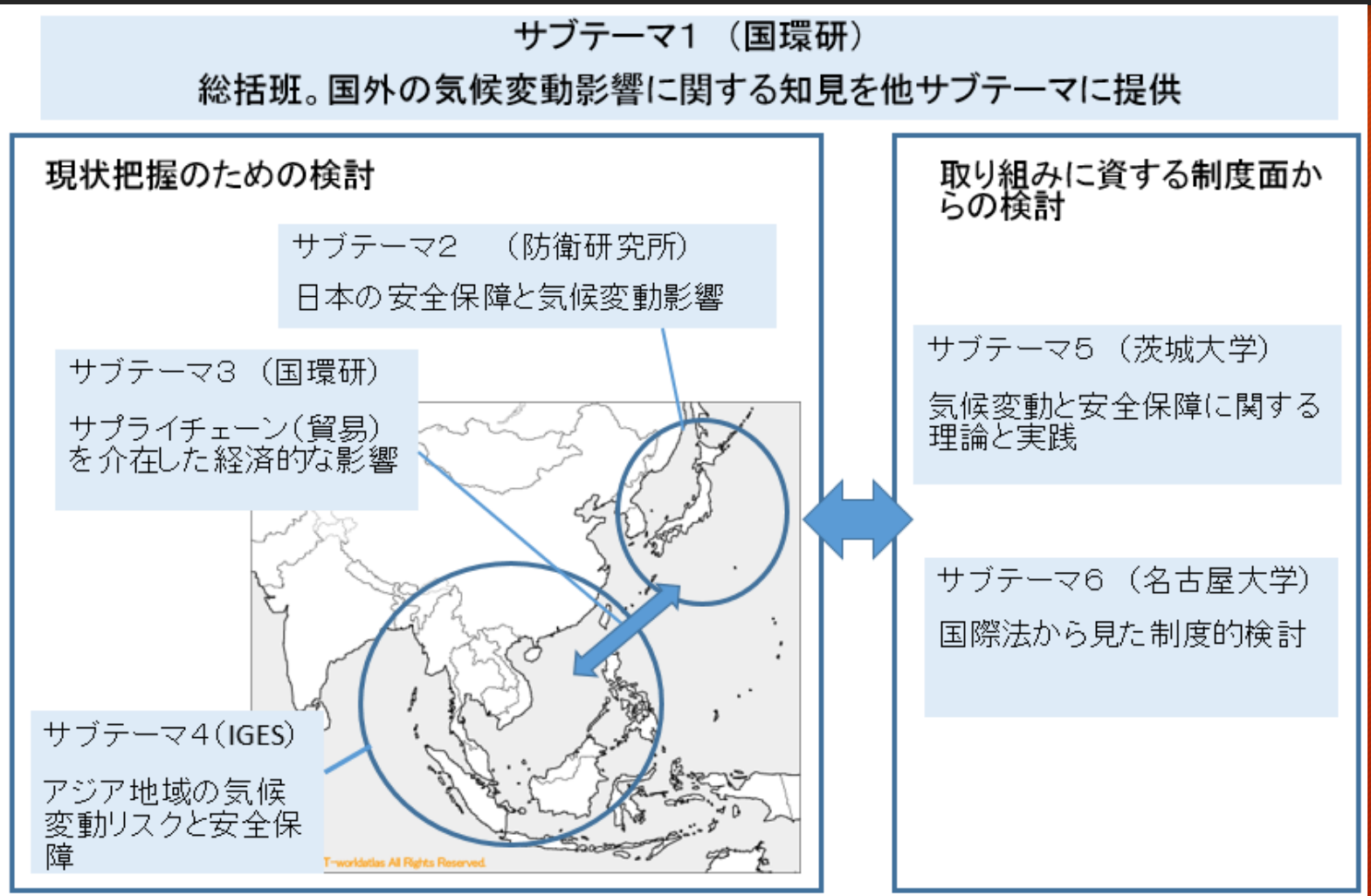
Integrating Fragility Components in Climate Change Vulnerability Assessment





- How climate change affects future resources and their access to the vulnerable?
- How these changes will affect the social dynamics including equality and harmony etc
- How social stabilizing and destabilizing factors are affected
- How the project interventions will address these factors?

Necessities for Addressing CFRs from the Point of View of Japan



- Historical and prospective analysis
- Critical threshold levels
- Risk-aware investment portfolio

Conclusions (1)

(1) Basic Understanding

- Climate change could worsen frequency and intensity of natural disasters.

- It could also impact economic conditions such as food price hike.

- Both could exacerbate current social and security problems faced by countries, which include internal conflicts and increase in internally displaced population.

Conclusions (2)

(2) Implications for developing countries

- Developing countries are more vulnerable because of underlying socio-economic factors, week institutions to deal with conflicts, and developmental deficit unable to meet basic needs of the people.

- This reconfirms the importance of ODA to help developing countries address security issues, development deficits and other economic issues so that poor and discriminated can at least meet basic needs for their daily life.

Conclusions (3)

(3) Implications for developed countries

- Demographic issues (e.g. aging population) dominate the CFRs of developed countries like Japan.

- This was obvious from recent disasters in Japan, which include the East Japan Triple disaster and recent earthquakes in Kumamoto.

- There is a need to put in place appropriate policies for addressing emerging demographic issues and Japan can take a lead in this area in the region.

Conclusions (4)

(4) International and regional implications

- Increasing internal conflict and its implications for its neighbors means the urgent need to strengthen mutual trust amongst neighboring prefectures and countries in particular.
- Information exchange through key channels of the governments and introduction of coherent policies, for example, become necessary.
- In this respect, a third party or multilateral mechanisms could play important roles, though existing ones are not working very well. Regional mechanisms such as SAARC, ASEAN etc should take a lead in providing enabling environment for strengthening the trust.

Conclusions (5)

(5) Complementarity between developed & developing countries

- There is a need for coordinated policy development between developed and developing countries due to increasing dependency on each other and the implications of CFRs in one country on the other country.

- Sharing integrated risk assessments among countries and designing immigration policies are some possible areas of cooperation among these countries.

Questions for you to Think…

- **Question-1**: Have you witnessed any climate-fragility risks affecting the governments and institutions in any countries where you lived or worked? Characterize such risks and how they are affecting the nation states?
- **Question-2**: Are the current global policy processes sufficiently addressing the linkages between peace building, climate change and disaster risk reduction? Which policy processes are doing well and which ones can do better?
- **Question-3**: what are the ways and means through which stakeholders engaged in peace building, climate change and disaster risk reduction can collaborate and coordinate in setting comprehensive policies at the national and international level?

Thank You!

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