

# Indicators for Characterizing Transboundary Climate Risks (TBRs) to Strengthen Official Development Assistance (ODA)

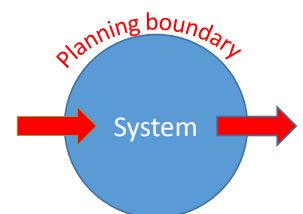
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## 1. Transboundary Risk Transmission Pathways

- Transboundary risks (TBRs) are defined as those risks that originate from outside the planning boundary of a system in question and or those risks that originate from the system affecting entities beyond its boundaries (Authors).
- TBRs are often ignored due to
  - Lack of understanding and or information
  - Often not quantified
- Exclusion of TBRs from risk assessments leads to
  - Under-estimation of risk and
  - Ineffective adaptation
- Four major risk transmission pathways:
  - Movement of goods and services (e.g. global & regional trade)
  - Movement of people
  - Movement of natural resources (e.g. transboundary rivers)
  - Financial markets and related instruments (e.g. insurance & financial markets)



Aided by global and regional integration processes

# Key Factors Behind Transboundary Risks

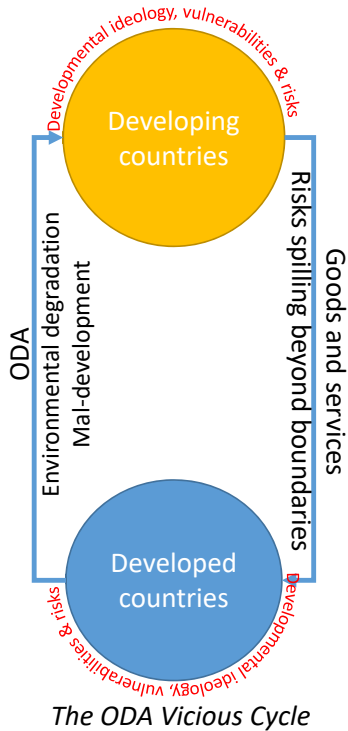
TBR Cases (more to be evaluated)	Key factors behind the TBR cases		
	Climatic/environmental	Institutional/Policy	Socio-economic
Global food price crisis 2008	<ol style="list-style-type: none"> <li>1. Droughts</li> <li>2. Floods</li> <li>3. Pests (globally distributed)</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of <b>information</b></li> <li>2. Global <b>supply chains</b></li> <li>3. Biofuel promotion policies</li> <li>4. Food export bans</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Urban poverty</i></li> <li>2. (Import)<b>Market dependency</b>/food insecurity</li> </ol>
Bangkok floods 2011 (FDI in vulnerable countries)	<ol style="list-style-type: none"> <li>1. Heavy rainfall</li> <li>2. Storms</li> <li>3. High-tides</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of risk <b>information</b></li> <li>2. Issues in flood forecast</li> <li>3. Limited risk mitigation measures</li> <li>4. Regional <b>supply chains</b></li> <li>5. Governance failures (new govt)</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Mal-development</i> (flood plain)</li> <li>2. FDI dependency</li> <li>3. Cheap labour</li> <li>4. Economic development needs</li> </ol>
Insurance and financial markets nexus	<ol style="list-style-type: none"> <li>1. Catastrophic events</li> </ol>	<ol style="list-style-type: none"> <li>1. Poor development of local reinsurance</li> <li>2. Propensity to make risky investments</li> <li>3. <b>Connected</b> financial markets</li> <li>4. Lack of financial risk mitigation</li> <li>5. <i>Poor risk mitigation</i></li> </ol>	<ol style="list-style-type: none"> <li>1. Low risk awareness</li> <li>2. Low insurance affordability</li> </ol>
COVID19 and natural hazards (Floods, cyclones, droughts)	<ol style="list-style-type: none"> <li>1. Pandemic</li> <li>2. Floods</li> <li>3. Droughts</li> <li>4. Cyclones</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of institutional capacity</li> <li>2. Institutions working in silos</li> <li>3. Lack of risk <b>information</b></li> <li>4. <b>Globalized supply chains</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Fragile livelihoods</li> <li>2. Lack of savings</li> <li>3. High <b>market dependency</b></li> </ol>

**Common factors:** Multiple stressors, risk management (risk information, risk mitigation etc.), self-reliance (globalized supply chains/connected markets), development (poverty reduction, robust economic development) **3**

## The Rationale of ODA

- ODA is a gold standard of foreign aid by DAC It is the main source of development financing to date.
- ODA is “the government aid that promotes and specifically targets the **economic development** and **welfare** of developing countries” (OECD, 2019). DAC was formed in 1960 it introduced the ODA concept in 1969.
- United Nations target for developed countries to allocate 0.7% of their GNP to ODA was agreed in 1970 (Pearson Commission, 1969). GNP was changed to GNI in 1993.
- The goal is to build developing country capacities so no country is dependent on ODA.
- The objective of ODA changes periodically. For 2018-2022, it was to support the 2030 SDG agenda: *sustained, inclusive and sustainable economic growth, poverty eradication, improvement of living standards in developing countries.*
- However, developing countries continue to depend on ODA despite decades of efforts to build their capacities.

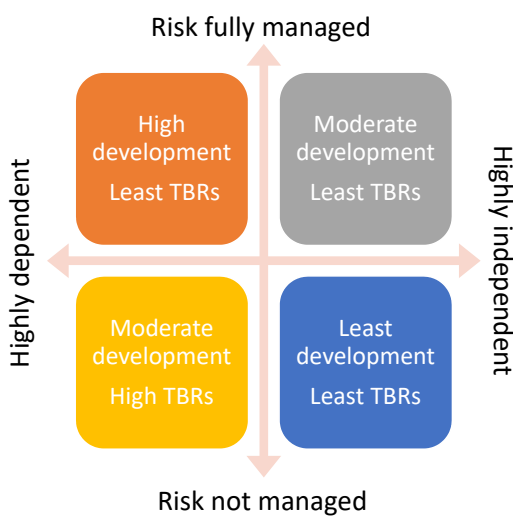
## 2. The ODA Vicious Cycle and Transboundary Risks



- Developed countries influence the development of developing countries through ODA in a context where developed countries are increasingly dependent on developing countries as global production centers. ODA supports such needs.
- Developing countries are highly vulnerable to various natural and man-made hazards that are not always well understood as risk mitigation & management is poorly developed in these countries.
- However, it is not clear how the ODA addresses the risk reduction needs matching with the objectives of the ODA leaving a significant part of risk to leak beyond boundaries.
- Approaches to break this vicious cycle:
  - Reduce ODA (or inter-country) dependency (which is tough in a 'globalized' world and is a long-term objective)
  - Improve ODA (and other measures) to break the risk pathways <<Identify TBRs before they take shape>>

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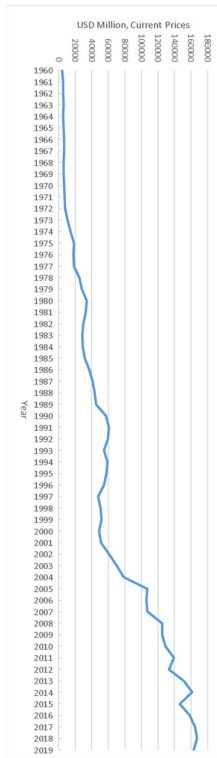
## Characterizing the ODA Influence on TBRs



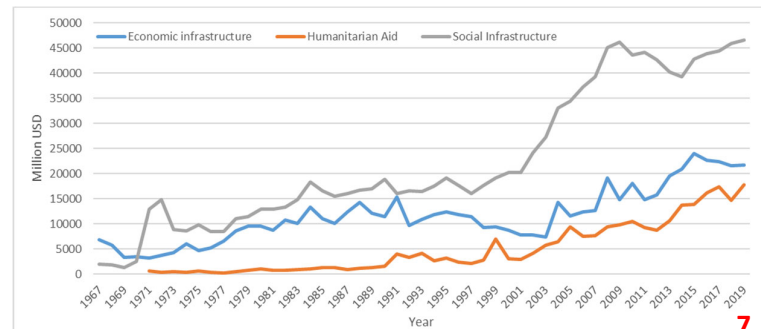
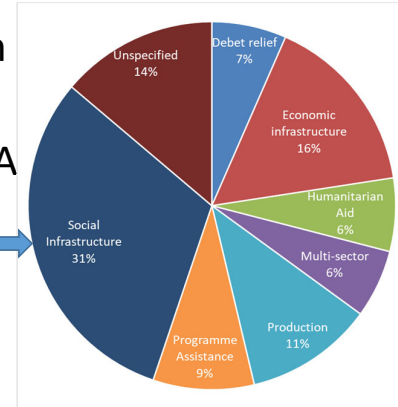
- We aim to understand the ways in which ODA influences factors behind high TBRs identified from the case study approach presented before.
- Common socio-economic, natural, and institutional/policy factors that lead to risk transmission across borders will be identified.
- The ODA projects will be assessed for their impact on
  - climate and disaster risks and vulnerabilities
  - self-reliance/dependence
- Factors to be considered while reviewing ODA projects
  - Focus on specific ODA category of projects
  - Focus after year 2000
  - Look beyond poverty to define development
  - Look for projects that influence FDI

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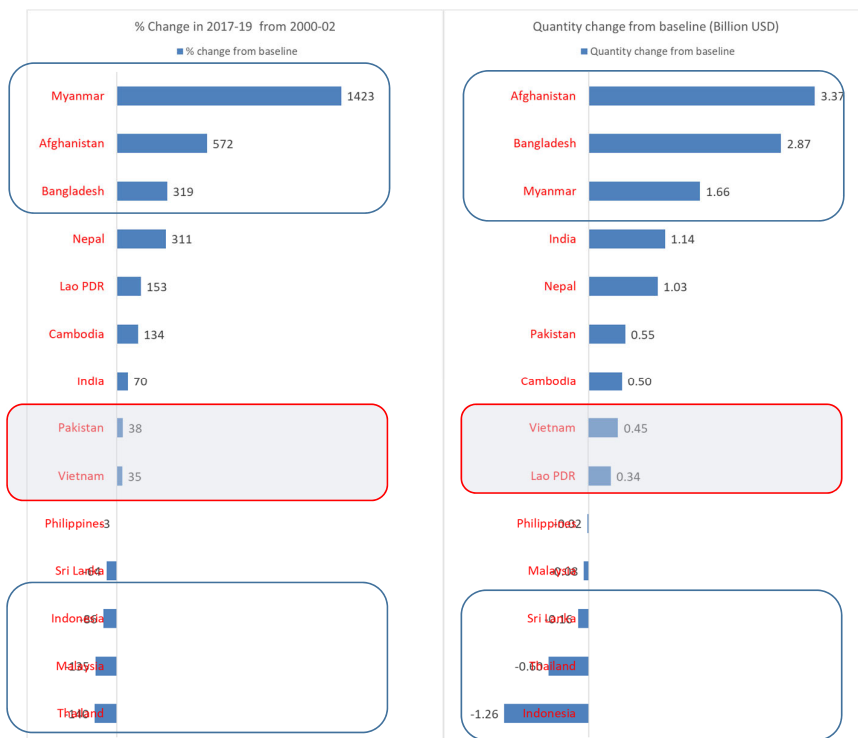
## i. Focus on Social & Economic Infrastructure & Humanitarian ODA Projects



- The ODA increased at an average annual growth rate of **6.94%** during 1960-2019.
- Out of 8 sectoral categories, the majority of ODA went to **social infrastructure**, economic infrastructure and unspecified categories.
- The **humanitarian aid** continued to increase throughout the period.
- The continued dependency on ODA indicates
  - structural problems with ODA
  - need to shift from supply driven to demand driven model.

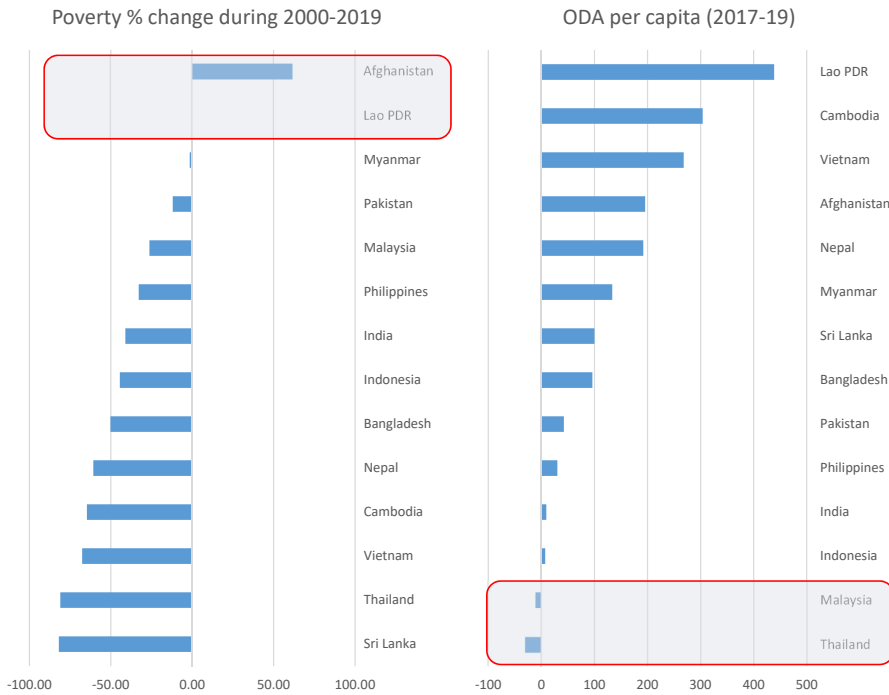


## ii. Focus on ODA Projects After 2000



- Hyogo Framework of Action (2005-2015) marked an important change in our approach to DRR and Kyoto Protocol came into effectiveness during the same period.
- During this period, three groups of countries can be identified:
  - **ODA dependency increased:** Myanmar, Afghanistan, Bangladesh
  - **No or relatively small change:** Pakistan, Vietnam
  - **Declined ODA dependency:** Indonesia, Malaysia, Thailand

### iii. Poverty is not a Sufficient Indicator of Development for Inclusion of ODA Projects in the Analysis



- Poverty as an important vulnerability factor for multiple stressors, hence is an important driver of ODA, DRR, and CCA financing.
- Despite reduction in poverty, the ODA per capita poor population increased in most countries, excluding *Malaysia and Thailand*.
- *Conclusion:* Development areas other than poverty reduction received ODA focus.

### iv. ODA Projects that Promote FDI Need to be Included

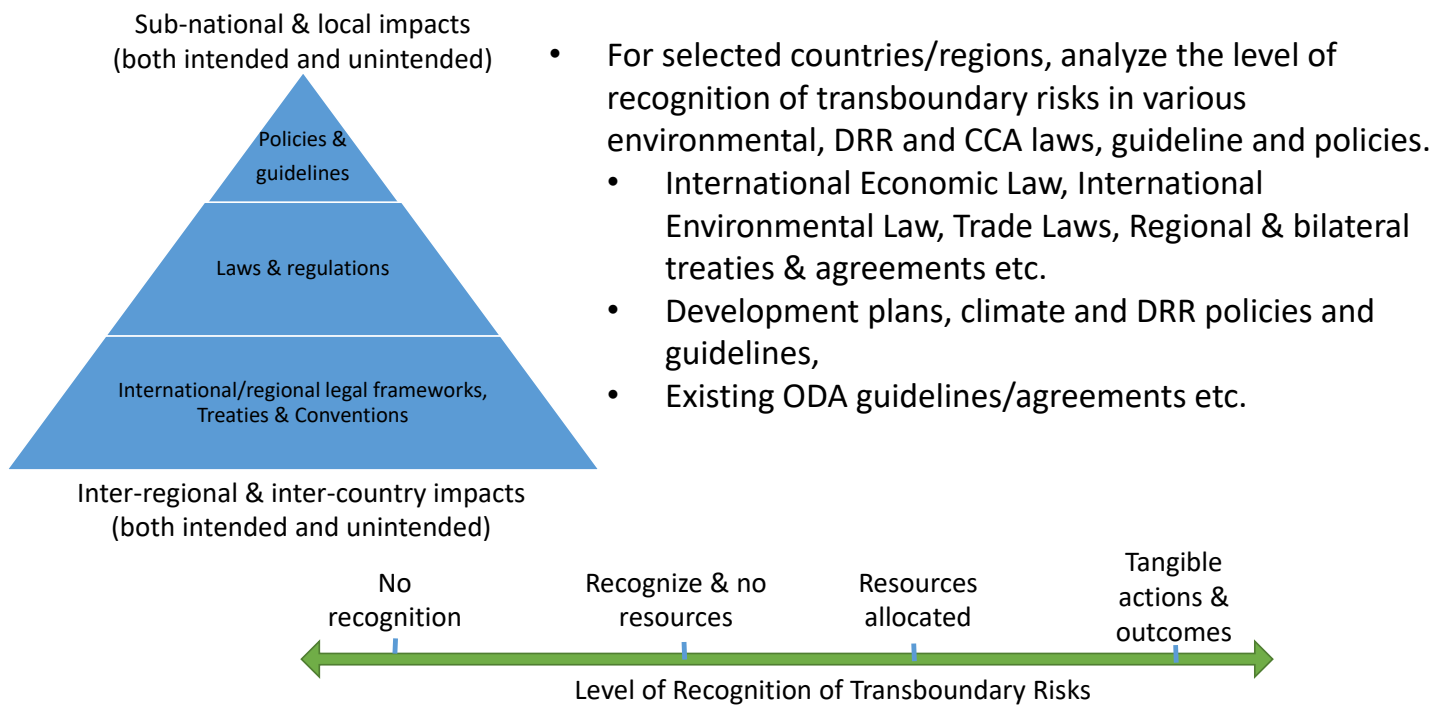
Country	World Risk Index (Rank)	Climate Risk Index (Rank)	FDI inflows (Billion USD) 2016	ODA (% change)	Damage (million USD) 2016
The Philippines	3	16	6.9	-3	185
Bangladesh	5	13	2.3	319	750
Cambodia	8	111	2.5	134	NA
Vietnam	18	5	12.6	35	846
Indonesia	33	37	3.9	-86	233
Myanmar	42	3	3	1423	16.6
Sri Lanka	63	4	0.9	-64	1220
Pakistan	73	40	2.5	38	2
India	75	6	44.5	70	2574
Malaysia	89	72	11.3	-135	132
Thailand	91	20	2	-140	145
Lao PDR	100	120	1	153	0.05

*Note: Top 20 ranked countries in Asia (The Philippines, Bangladesh, Cambodia, Vietnam, Myanmar, Sri Lanka, India) are highlighted with red boxes and arrows.*

Top 20 WRI and CRI ranked countries in Asia (The Philippines, Bangladesh, Cambodia, Vietnam, Myanmar, Sri Lanka, India)

1. ODA has increased by **273%** from 2000
2. Received 78% (70 billion USD) of the total FDI (93.4 b USD)
3. The economic damage accounted 69% of 69% of total damages (5.6 b USD)

### 3. Asses Policy & Legal Enabling Environment for TBRs



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## Relevant Outputs & References

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2. Research Report: Prabhakar, S.V.R.K. et al. 2022. Indicators for characterizing transboundary climate risks based on selected case studies. IGES Report. [To be published]
3. Book chapter: Prabhakar, S.V.R.K. 2021. Mitigating transboundary risks by integrating risk reduction frameworks of health and DRR: A perspective from COVID-19 pandemic. In *Environmental Resilience and Transformation in times of COVID-19*. DOI: 10.1016/C2020-0-02703-9 [Published]
4. Book chapter: Prabhakar, S.V.R.K. Book chapter: 2021. Climate change and human security in the context of the global pandemic: Emphasising responses that maximise synergies. In *Global Pandemic and Human Security*. DOI: 10.1007/978-981-16-5074-1\_5 [Published]

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