

STI for SDGs: Dual decouplings & the just transitions

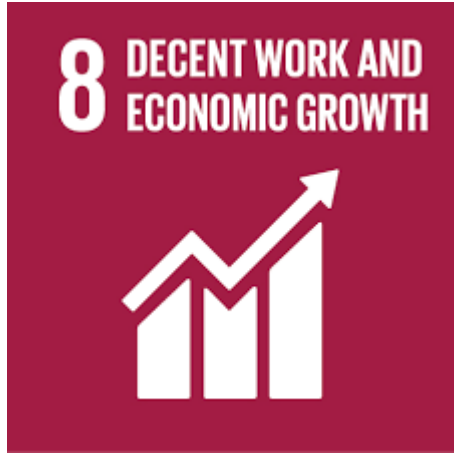
**ASIALICS
SEAC-STIPM
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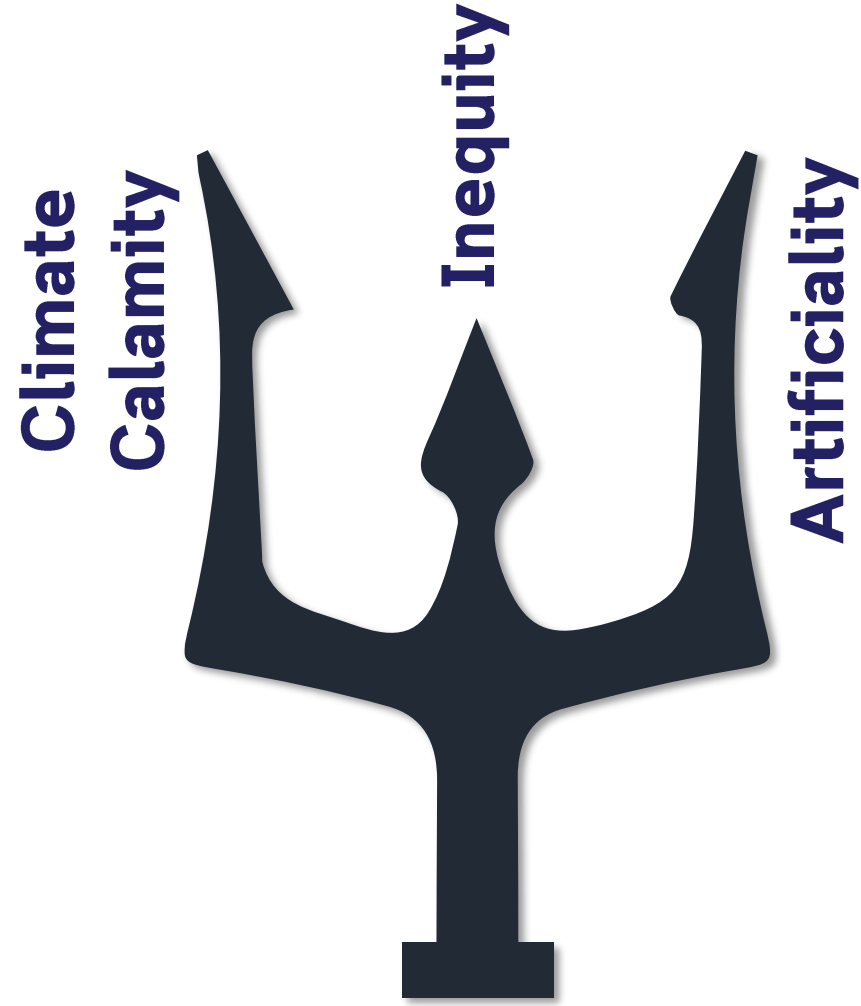


CSTS

Center for Science, Technology, and Society
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Equity, equality, & inclusiveness are everywhere in the SDGs



one trident to rule them all

The Dual Decouplings

Economic growth vs Resource use
Productivity vs Wages

**New technologies are the key driver &
“the gale of creative destruction”**

Yuval Noah Harari

The Useless Class

**Mass industrialization created the working class
AI revolution will create the unworking class**

**The rise of the “green” class
The fall of “brown” class**

**Many workers stand to lose their jobs
in the green & circular transitions**

A case in point
waste pickers in Thailand

**Recycle industry consolidation w/ new tech
less & more difficult to collect
price drops due to waste imports**

Any STI policies, or any policy, to help them?

The Just Transitions

**How to guarantee and improve social justice
in the process towards
a green & circular society and
AI & automation-driven economy**

Transition Dilemmas

Big push vs Small pull
Top-down vs Bottom-up

Sustainability transitions

“Systemic transformation” requires large-scale investment for deploying technologies and building new infrastructure.

Urgency for decisive action requires top-down approach to planning and implementation

Procedural justice

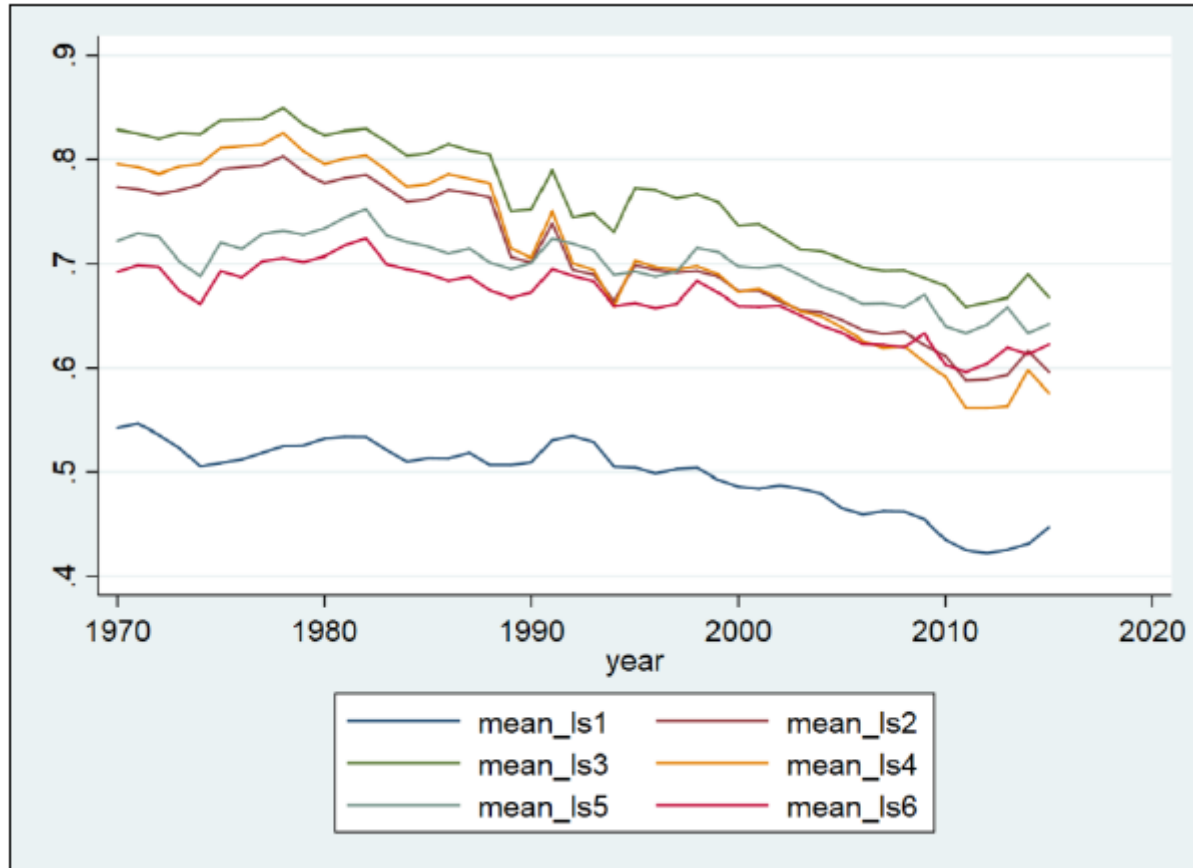
Ensuring social justice requires inclusive, bottom-up participation and deliberative processes.

Context-specific plans and realistic implementation timelines are crucial to successful transitions.

Structural constraint for a just transition

Capital vs Labor

Labor share averages over time (1970-2015)



Country	Labor share of national income
Thailand	29%
Philippines	32%
Malaysia	34%
South Korea	52%
Japan	65%
United States	71%

Guerriero, M. (2019). The labor share of income around the world: Evidence from a panel dataset ADBI working paper 920.

As we conceive and implement STI policies for sustainable transitions:

- **Understand the interwoven social, political, and technical barriers (and opportunities)**
- **Emphasize stakeholder involvement**
- **Integrate labor and welfare policies, and if possible, income & asset redistribution policy**