United Nations Framework Convention on Climate Change

Compilation of good practices and lessons learned on the set-up and implementation of NSIs

Asia Pacific Climate Week (ACW)

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Bhava Dhungana, UNFCCC Secretariat

TEC work on National Systems of Innovation

- Responds to guidance by Parties and the latest IPCC findings.
- The TEC has **compiled** good practices and lessons learned on the set-up and implementation of NSIs for developing country policymakers looking to strengthen their NSI in the context of climate action.
- The **Summary for Policymakers**, along with the **six case studies**, aims to:
  - **Deepen the** understanding of selected parts of the Systems and **identify measures and approaches** that have improved the effectiveness of the national systems in specific cases
  - **Translate** them into good practices that can be replicated in other countries or sectors.

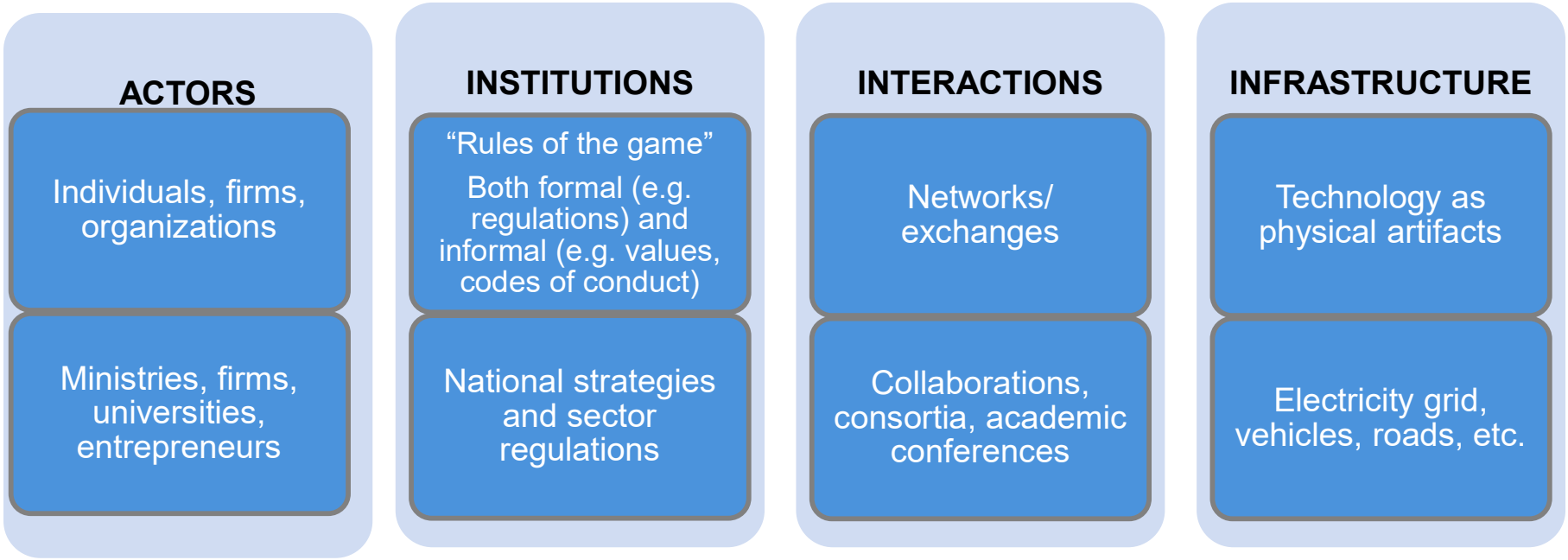
Compilation of good practices and lessons learned on the set-up and implementation of NSIs

Publications

Link to download digital publications: https://unfccc.int/ttclear/tec/NSI.html

First - What is a system of innovation?

The elements and relationships which interact in the production, diffusion, and use of new, and economically useful, knowledge.



NSI's functions

How does the system contribute to innovation?

- An innovation system's overall aim is to 'produce, diffuse, and use' innovations.
- To achieve this goal, there are some specific activities that should be undertaken to facilitate the innovation process, for example the diffusion of knowledge.
- These activities are referred to as the **'functions'** an innovation system can perform.
- The 7 functions are detailed in the report

Based on empirical evidence, innovation studies identify seven main functions:

F1 Knowledge development & diffusion;
F2 Entrepreneurial experimentation;
F3 Market formation;
F4 Influence on the direction of the search;
F5 Resource mobilization;
F6 Legitimation;
F7 Development of positive externalities.

How to assess the performance of the system?

A structure-function coupled analysis

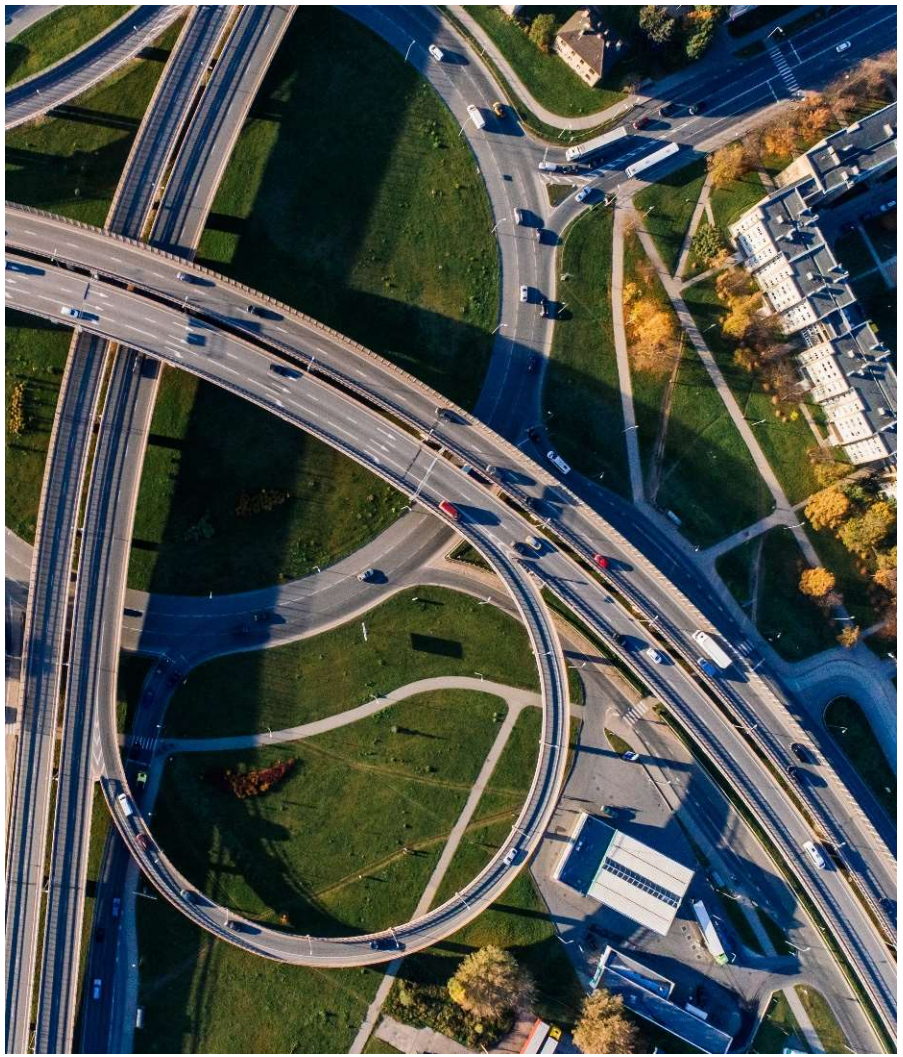
Structural component	Systemic problem (Weakness)	Type of problem
Actor (for F1 to F7)	Absence of relevant actor/s	Presence/absence
	Absence or inadequate capabilities in the actor/s	Capability
Institutions (for F1 to F7)	Absence of required/relevant institutions	Presence/absence
	Absence or inadequate institutions	Capability
Interactions (for F1 to F7)	Absence of interactions between relevant actors and organizations (due to distance, lack of trust, lack of capabilities, divergent goals, etc.)	Presence/absence
	Inadequate quality or intensity of interactions (too strong, too weak)	Quality or intensity
Technology (incl. physical artefacts, knowledge setups, financial infrastructure, etc.) (for F1 to F7)	Absence of technology, infrastructure	Presence/absence
	Inadequate quality of the infrastructure	Quality

How to analyse and establish NSIs?

"Drawing from the analysis of the case studies, the overall recommendation is that implementation of the NSI is best guided through a **systemic approach** that draws upon **NSI functions** and **structure-function frameworks** as a way to suitably organize efforts".

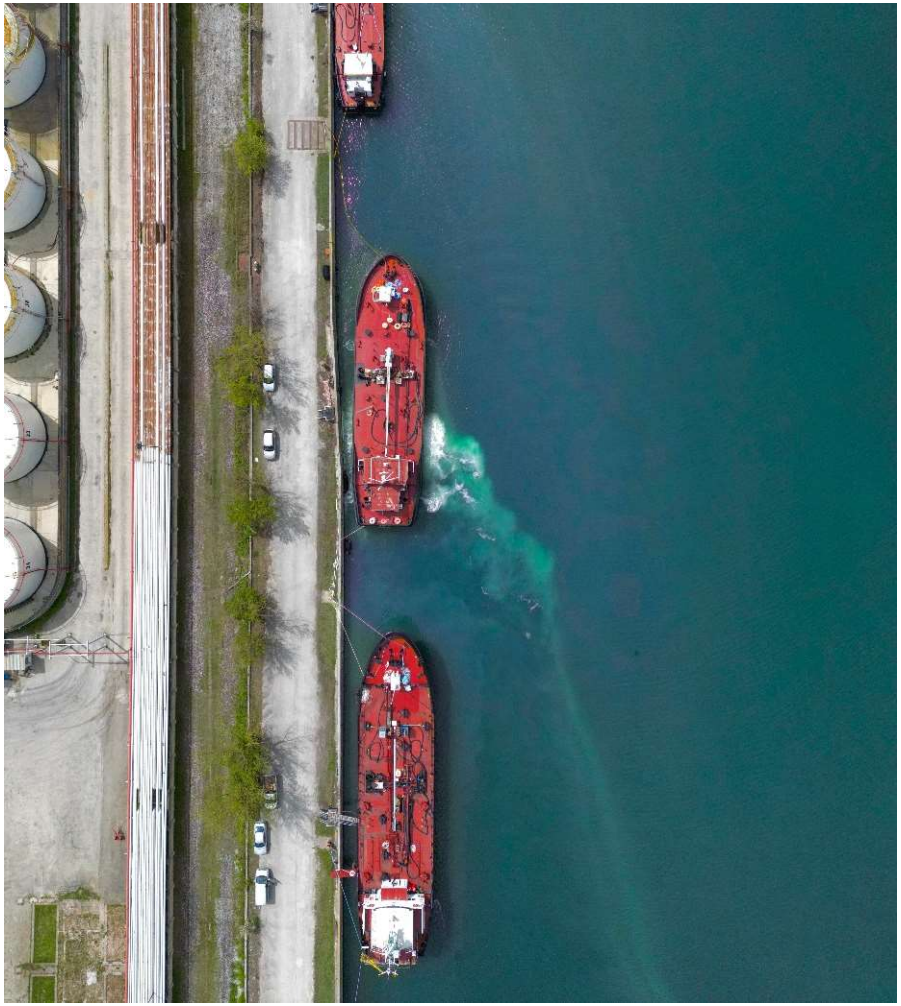
This is done by:

1. Defining the **scope** of the analysis
2. Identifying system **structural components**
3. Assessing their strengths and weaknesses throughout the **seven structure-functions**
4. Designing **interventions** to address systemic problems
5. Ensuring **monitoring, evaluation, and review**



Lessons learned: success factors

1. **Take a systemic perspective** towards the establishment/strengthening of the NSI, integrated with host country development objectives (all cases)…
2. ... **yet a tailored approach to bridging sector- and innovation** phase-specific gaps (all cases)
3. **Leadership** with a collaborative attitude and an understanding of local context (all cases)
4. **Participation of/interactions** among local actors facilitates innovation and alignment (all cases)
5. **Engage with international institutions and collaborations** to help build local institutions and networks (BEE, KCIC, Haiti DRR, Jakarta)



5. Ensure that innovation/organizations are **evolutionary** and **able to adapt** to new circumstances, through continuous monitoring and review (all cases)
6. **Use a portfolio of solutions** (all cases)
7. **Deal with structural underlying problems** (Jakarta, Haïti DRR, Brazil)

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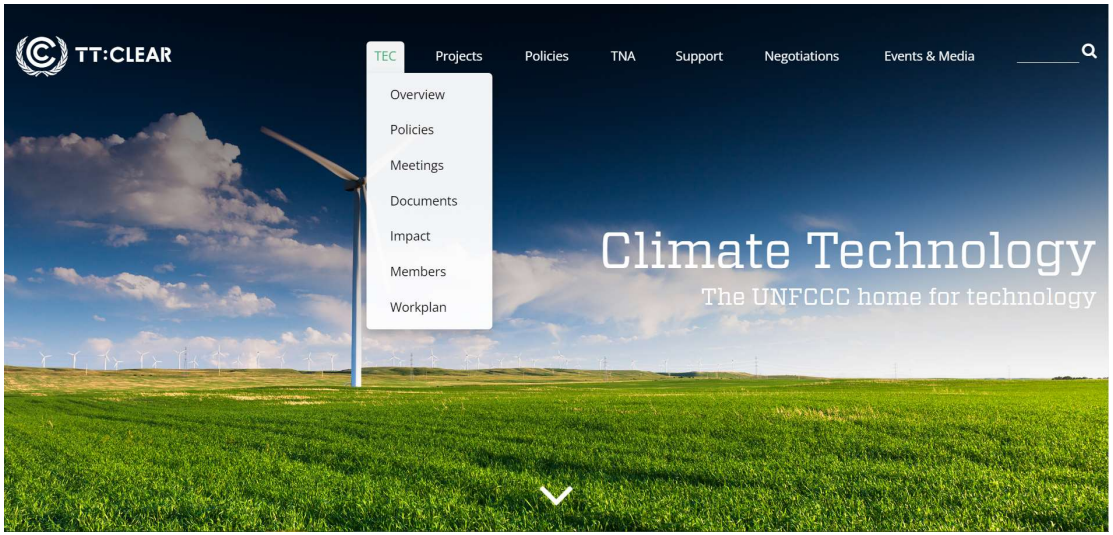

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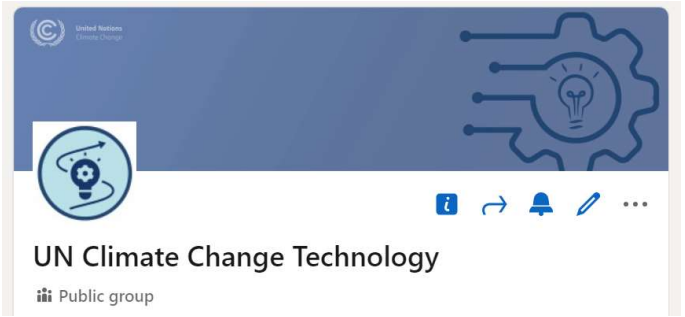
> https://www.linkedin.com/groups/14126588/



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