



An evaluation framework to facilitate NAMA prioritization

UNFCCC Regional Workshop on NAMAs
22nd April 2014

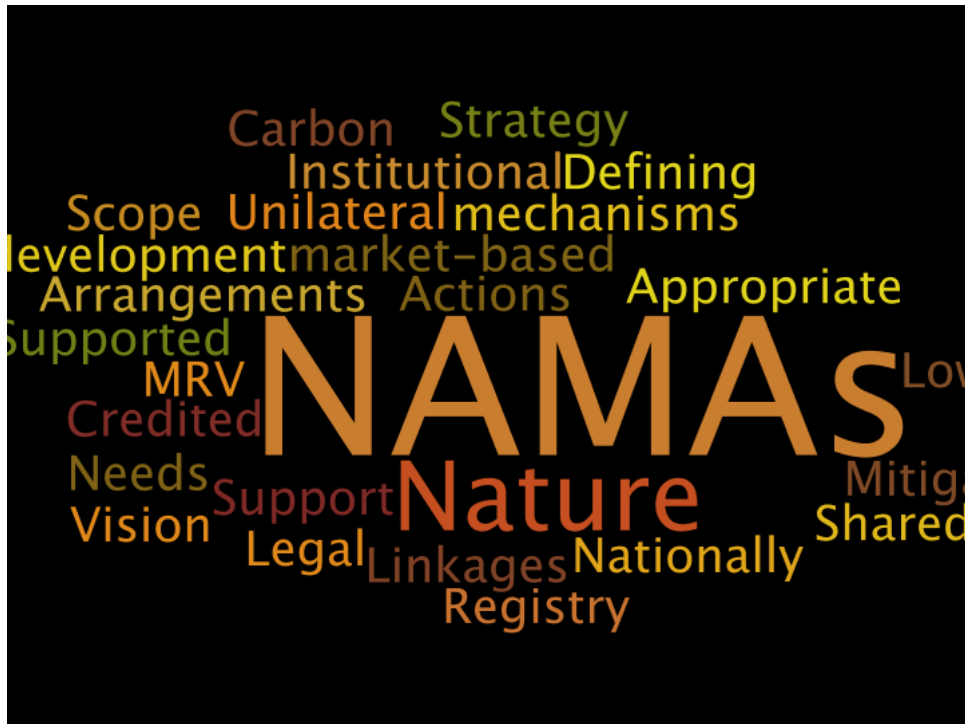
Manish Kumar Shrivastava, Neha Pahuja, Ritika Tewari, Nimisha Pandey, Swati Agarwal
Earth Sciences and Climate Change Division, TERI

This research is supported by the Royal Norwegian Embassy through the project "Developing country participation in addressing climate change: Analyzing issues and options for implementing NAMAs"



Outline of the presentation

- Why do we need a systematic evaluation framework for NAMAs?
- Methodological approach to arrive at the framework
- Steps in the framework
- A hypothetical illustration



Need for an evaluation framework

Complexity...

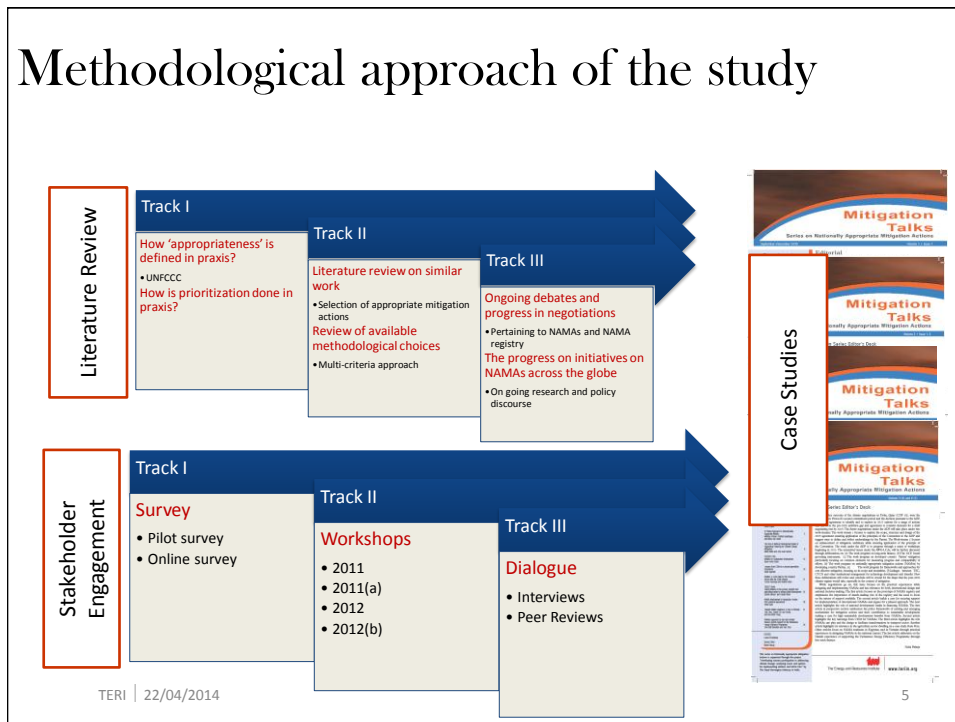
Multiplicity...

Specificity...

Inclusivity...

An approving authority/mechanism at national level would need a transparent approach to make informed choices from the different mitigation options available/possible

Methodological approach of the study



Normative guidelines for developing the framework

- ✓ Flexibility to country context is imperative
 - Multiple ways to construct and solve the problem of GHG emissions
 - Solution entails a combination of social, economic, political and institutional buy-in
- ✓ A multi-criteria approach is unavoidable
 - Captures complexity and multiplicity of perspectives, central to environmental decision making
 - Provides comprehensive, participatory and qualitative assessment
- ✓ Criteria must be measurable
 - Complexity of choice parameters limits usage of single scale
 - While measurability is desirable, complete aggregation not possible
- ✓ Discursive application of criteria
 - Flexibility of assigning weights
- ✓ Capture the political sensitivity of negotiations
- ✓ Utility and ease of application

Outcome clusters

8 Criteria Clusters

- * Political Acceptability of International Dimensions

- * Transformation of Economy

- * Cost-effectiveness

- * Social and Local Acceptability

- * Environmental Impacts

- * Institutional Feasibility

- * Domestic Resource Usage

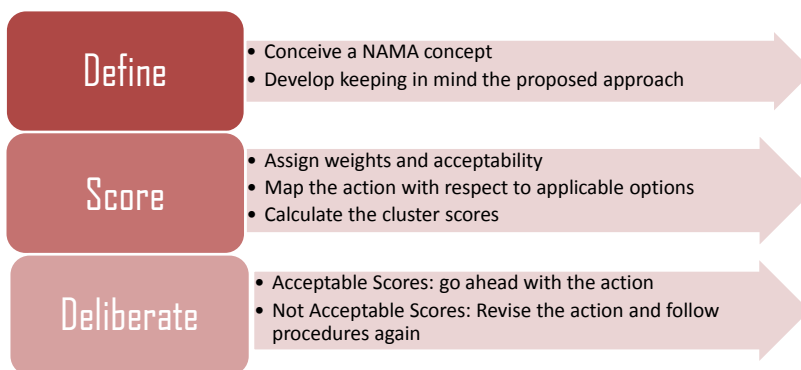
- * Reduction of Undesirable Impacts

Step wise approach to NAMA Design and Evaluation

Outcome Cluster	Cluster [L]	Cluster Score(+)	Cluster Score(-)
	Political Acceptability of International dimensions		
Criteria	Transformation of economy	Deliberation matrix	age
	Cost-effectiveness		
Options	Social and Local Acceptability		ibility
	Environmental Consequences		.+1
	Institutional Adequacy		core
	Domestic Resource Usage		
	Reduction of undesirable impacts		SCIPj)+]

Illustration		Weightage of criteria [WCI s.t. ΣWCI=1]	Options		Action Score [SCIPj]	Guide for Action Score	Criteria positive score [CIPj*SCIPj]	Criteria negative score [CIPj*-SCIPj]	Cluster Score(+)	Cluster Score(-)
Cluster [G]	Criteria [L]		Acceptability: Yes (+1), Indifference (0), No (-1) [CIPj]	Options						
Political Acceptability of International Dimensions	Type of finance	0.2	1	Grant	0.6	% of total investment	0.12	-0.08	1.24	-0.56
			0	Equity	0					
			1	Concessional loan	0					
			-1	Commercial loan	0.4					
			0	ODA	0					
			0	Philanthropic	0					
	Nature of Technology Transfer	0.2	1	Concessional	0	Yes (1) / No (0)	0.2	-0.2		
			-1	Commercial	1					
			1	IPR license	1					
			1	Joint R&D	0					
	Capacity Building	0.2	1	Knowledge	0	Yes (1) / No (0)	0.6	0		
			1	Institution level	1					
			1	Systemic level	1					
	Source of finance (under/outside FCCC)	0.2	1	Individual level	1	% of total investment	0.12	-0.08		
			1	Green climate fund/UNFCCC	0.6					
			-1	Multilateral Financial Institutions/Outside UNFCCC	0					
			-1	Bilateral funding/ODA	0					
			-1	Private investors/FDI	0.4					
	MRV implications	0.2	0	Individual/philanthropic	0	Yes (1) / No (0)	0.2	-0.2		
			-1	International MRV of all aspects of project	1					
1			International MRV of only supported component of Project	0						
1			Only Domestic MRV	0						
1			Part Domestic, Part International MRV	0						

How to use the scores?



- Deliberate on acceptability of scores
- Revise action to eliminate/reduce negative scores till it becomes acceptable

Illustration: Deliberation matrix of large hydro in India

Outcome cluster	Positive Score	Negative Score
Political acceptability of international dimensions	High , since it is fully domestically funded	Low , assuming only domestic MRV and no judgment on ambition under ICA.
Transformation of economy	High , increased energy and reduced dependence on imported exhaustive fossil fuels sources (energy security)	Low
Social and local acceptability	Medium , job creation, cultural acceptance of hydro power	High , displacement of sections and possible impoverishment
Environmental consequences	Medium , emission table	Medium /Low , biodiversity implications
Cost effectiveness	High , proven cheap power	Low/medium
Institutional feasibility	High , already in place	Low , already in place
Domestic resource use	High , domestic resources and technology	Low
Reduction in undesirable impacts	Medium , Reduced emissions and import dependence	High , livelihood loss and increased income disparity due to displacement, political unrest

11

Summing Up

- Decision maker makes goals, criteria and attitude towards various options relating to each criterion explicit
- Project developer designs proposal for NAMA accordingly
- Decision maker elaborates on the trade-offs made during deliberations



Thank you!

ritika.tewari@teri.res.in

Further details can be accessed at:

<http://www.teriin.org/projects/nfa/cc2bwp1.php>

TERI | 22/04/2014

13

Outcome Clusters and Criteria

- **Political Acceptability of International Dimensions**

- ✓ NAMAs cannot be insulated from reference to its international context.
- ✓ Discourse suggests MRV, source and type of finance, capacity building need and nature of technology transfer as the most important aspects

Type of finance	Nature of technology transfer	Capacity building needs	Source of finance	MRV implications
-----------------	-------------------------------	-------------------------	-------------------	------------------

- **Transformation of economy**

- ✓ A NAMA should help economy transform itself over a period of time into a more environment friendly economic system
- ✓ may be brought about through technological changes, increase private sector participation, changes in lifestyles etc.
- ✓ should be measured in terms of contribution to national developmental priorities (e.g. energy security, poverty alleviation and enhanced manufacturing capabilities)

Technological	Private sector participation	Energy security	Impact on manufacturing capability	Lifestyle changes
---------------	------------------------------	-----------------	------------------------------------	-------------------

TERI | 22/04/2014

Outcome Clusters and Criteria

- **Cost effectiveness**

- ✓ include cost implications not only for the project implementer but also to the regulatory agencies, government and the beneficiaries of the action and resource use efficiency in undertaking such an action.

Cost of action	Cost to government	Cost to Beneficiaries	Cost recovery period	Resource efficiency
----------------	--------------------	-----------------------	----------------------	---------------------

- **Social and Local acceptability**

- ✓ The social dimension of sustainable development along with acceptability among the local and political community is a core priority
- ✓ Reduction in economic and social inequalities and sensitivity to cultural practices of local community are critical.

Reducing income disparities	Job creation	Impact on marginalized sections of society	Safeguards	Cultural acceptance
-----------------------------	--------------	--	------------	---------------------

- **Environmental Consequences**

- ✓ Leading to environmental benefits/following do-no-harm principles

GHG reduction potential	Impact on air quality	Impact on biodiversity	Impact on water resources	Impact on Soil	Waste management
-------------------------	-----------------------	------------------------	---------------------------	----------------	------------------

TERI | 22/04/2014

15

Outcome Clusters and Criteria

- **Institutional adequacy**

- ✓ Assessing the feasibility of an action in terms of institutional requirements (fulfillment of regulatory requirements, whether existing arrangements would suffice)

Changes in institutional arrangements	Compliance with existing laws and regulations
---------------------------------------	---

- **Domestic resource usage**

- ✓ Efficient and optimum utilization of and greater reliance on domestic resources (human and natural resources; and financial and technological capital)

Human resource	Natural resource	Financial capital	Technological capital	High emission lock-in
----------------	------------------	-------------------	-----------------------	-----------------------

- **Reduction in undesirable impacts**

Import intensity	Impact on domestic manufacturers	Diversion of resources	Conditionality of support	Livelihood losses	Hazardous waste	Balance of payments	High emission lock-in
------------------	----------------------------------	------------------------	---------------------------	-------------------	-----------------	---------------------	-----------------------

TERI | 22/04/2014

16