A Framework to Facilitate Design and Evaluation of NAMAs at the National Level

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Overview of the Presentation

1. Key steps in NAMA cycle

2. To identify constituent elements defining national appropriateness.

3. To facilitate making a choice of the most 'appropriate' mitigation action from a broad spectrum of options using a multi-criteria evaluation framework

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Key steps in NAMA Cycle

1. Define accounting and reporting principles
2. **Define policy or action**
3. **Identify effects and map causal chain**
4. Define GHG emission boundary
5. Estimate Baseline
6. Estimate GHG effects ex-ante
7. Monitor performance
8. Assess GHG effects ex-post
9. Verify
10. Report

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1. Data Collection
2. Policy Interaction
3. Cost analysis

Need for a Framework

- Environmental problems are complex: high level of uncertainty; political in nature
  - Same extends to climate change problem, especially mitigation
  - Selection of appropriate mitigation options is a complex problem

- Different ways of constructing the problem and different paths to solving it
  - Mitigation actions can range from purely technological to purely behavioural or as combinations
  - Availability of different mitigation options/choices. But, what is the best ? And the most appropriate, in a given temporal and spatial scale with limited resources?
  - How do we make it more inclusive & participatory ?

- Instrument that works well in one country may not work well in another country with different social norms and institutions (IPCC, 2007)

- Each NAMA would be a policy making exercise, thus would need to rely on the domestic institutional arrangements in the country.
- Institutional arrangement for NAMAs can be centralised or decentralized.
- Thus, policy makers would have to make an informed choice from the different mitigation options available/possible

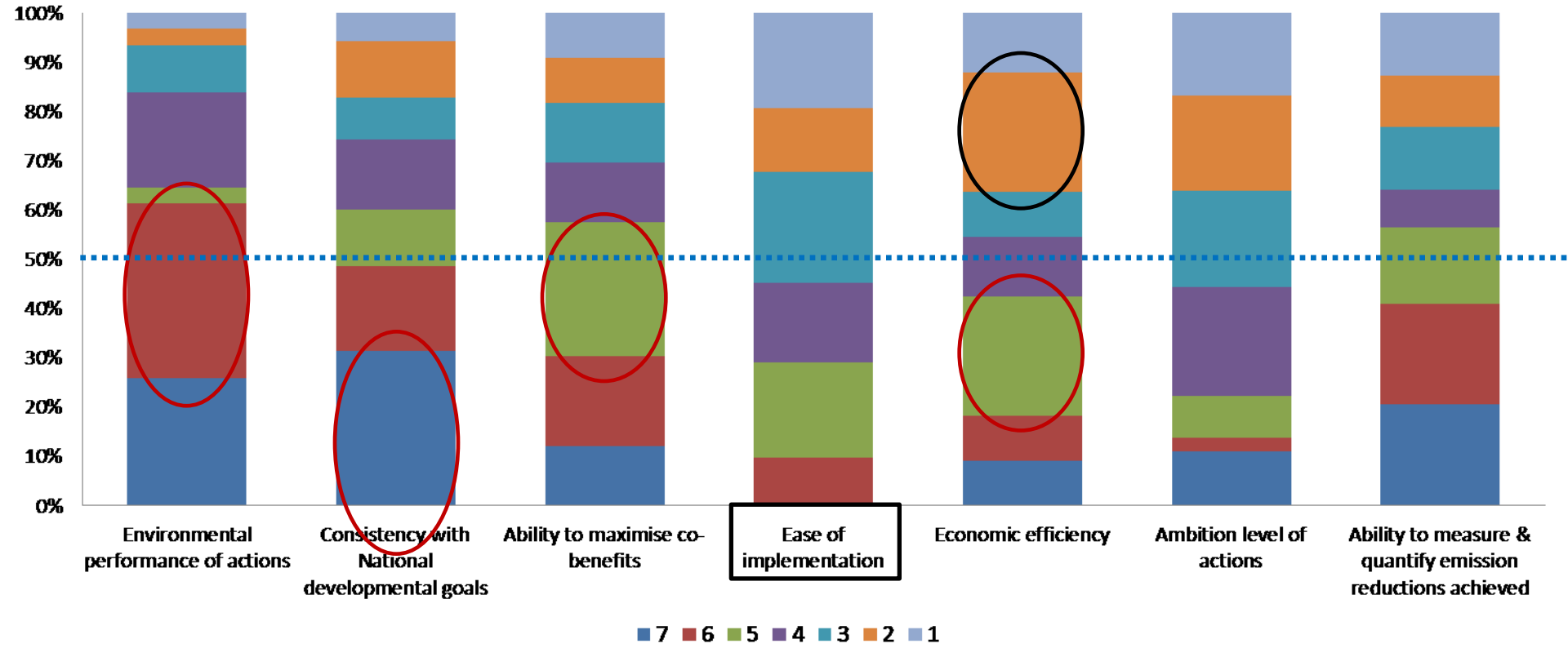
Assessment of a mitigation action as being 'nationally appropriate' , at any level of decision making, would require an evaluation framework.

Our approach for the study

We build upon: *Review, dialogues, questionnaire survey, discourse analysis…*

- ✓A multi-criteria approach is unavoidable
  - Captures **complexity and multiplicity of perspectives**, central to environmental decision making
  - Provides **comprehensive, participatory and qualitative** assessment
- ✓Measurability of criteria
- ✓Room for deliberations
- ✓Simplicity and flexibility key
- ✓International context important component for evaluation
- ✓*A tool to assist in structured decision-making*

Considerations that are important while designing NAMAs



- ✓ Consistency with national development goals regarded as most important consideration
- ✓ Followed by environmental performance of actions
- ✓ Followed by ability to maximize co-benefits and economic efficiency
- ✓ Economic efficiency, however has an equal lower ranking
- ✓ Ease of implementation least ranked consideration
- ✓ <u>High Rankings</u>: **environmental performance, national development goals, co-benefits, ability to measure and quantify emissions reductions**

NAMA Evaluation Framework

Cluster

Criteria

Options

Deliberation table

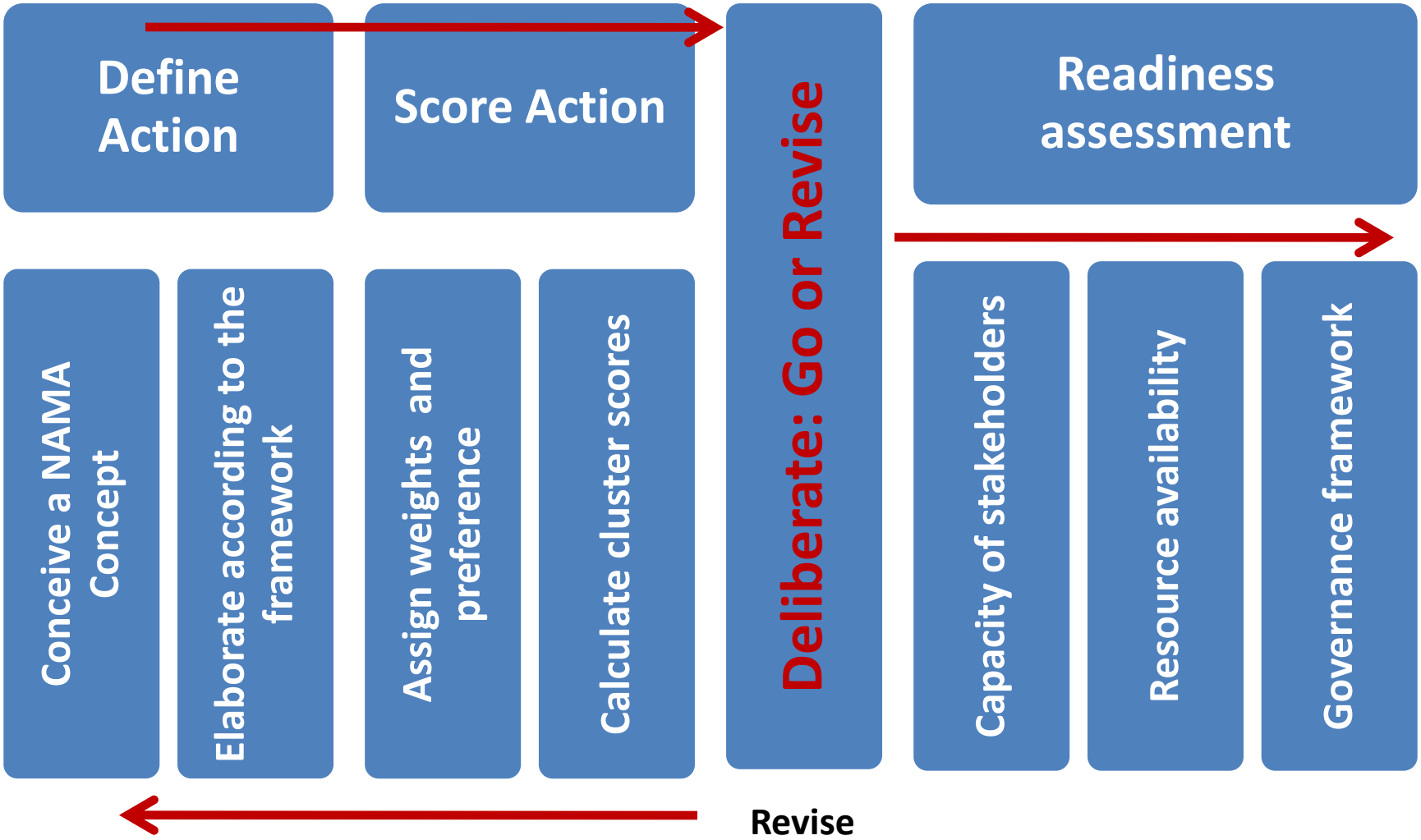
Cluster [G]	Cluster Score(+)	Cluster Score(-)
Political Acceptability of International Support		
Transformation		
Cost-effectiveness		
Social and Local Acceptability		
Environmental Impacts		
Institutional Feasibility		
Domestic Resource Component		
Potential Negative Impacts		

Weightage

Preference

-1, 0,+1

How to apply the framework



Assessment of Readiness

Capacity of Stakeholders	• Existing experience • Awareness • Technical Know-how (plan, design, implement, MRV)
Resource Availability	• Human Resources • Infrastructure • Financial
Governance Framework	• Presence of a national strategy • Necessary laws and regulations • Organizational framework (ownership) • Political Position on NAMAs

NAMA Evaluation Framework: An illustration

Cluster → **Political Acceptability of International Support**

Criteria

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

← Weightage

Options

Grant	Concessional	Institution level	Green climate fund/UNFCCC	International MRV (all aspects of project)
Equity	Commercial	Systemic level	MFIs/ Outside UNFCCC	International MRV (only supported component of Project)
Concessional loan	IPR license	Individual level	Bilateral funding/ODA	Only Domestic MRV
Commercial loan	Joint R&D		Private investors/FDI	Part Domestic, Part International MRV
ODA	Knowledge		Individual/ Philanthropic	MRV of support
Philanthropic				

← Preference

-1,0,+1

Political Acceptability of International Support

Criteria [C]	WCi	Preference	Options	Project Score	Guide for Project Score	Criteria positive score	Criteria negative score	G(+)	G(-)
Type of Finance	.2	0	Equity	0.6	% of total investment	0.12	-0.08	1.24	-0.56
		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					
		1	Knowledge	0					
Capacity Building	0.2	1	Institution level	1	Yes (1) / No (0)	0.6	0		
		1	Systemic level	1					
		1	Individual level	1					
Source of finance (under/outside FCCC)	0.2	1	Green climate fund/UNFCCC	0.6	% of total investement	0.12	-0.08		
		-1	Multilateral Financial Institutions/Outside UNFCCC	0					
		-1	Bilateral funding/ODA	0					
		-1	Private investors/FDI	0.4					
		0	Individual/philonthrophic	0					
MRV implications (Ref. to BAP 1bii; what, who, how?	0.2	-1	International MRV of all aspects of project	1	Yes (1) / No (0)	0.2	-0.2		
		1	International MRV of only supported component of Project	0					
		1	Only Domestic MRV	0					
		1	Part Domestic, Part International MRV	0					
		1	MRV of support	1					

Illustrative Deliberation Table (Large hydro in India)

Cluster [G]	Cluster Score(+)	Cluster Score(-)
Political Acceptability of International Support	**1.24**	**-0.56**
Transformation	1.2	-0.08
Social and local acceptability	0.2	-1.6
Environmental Impacts	1.0	-0.6
Cost effectiveness	1.0	-0.2
Institutional Feasibility	1.0	0
Domestic Resource Component	1.0	0
Potential Negative Impacts	0.6	-0.2

Criteria clusters

- ***Political Acceptability of International Support***

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

- ***Transformation of economy***

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

- ***Cost effectiveness***

Cost of action	Cost of compliance	Cost to government	Cost to beneficiaries	Cost recovery period	Resource efficiency

- ***Social and Local acceptability***

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

- ***Environmental Impacts***

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

- ***Institutional feasibility***

Changes in institutional arrangements	Compliance with existing laws and regulations

- ***Domestic resources***

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

- ***Potential negative impacts***

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

Further details can be accessed at:
http://www.teriin.org/projects/nfa/cc2bwp1.php